

# 2025 Annual Report

State of California  
Ocean Protection Council



# Table of Contents

Introduction	3
2025 Council Members	6
2025 Investments	7
2025 Accomplishments & Progress	8
Goal 1: Safeguard Coastal and Marine Ecosystems and Communities in the Face of Climate Change	9
Goal 2: Advance Equity Across Ocean and Coastal Policies and Actions	16
Goal 3: Enhance Coastal and Marine Biodiversity	21
Goal 4: Support Ocean Health Through a Sustainable Blue Economy	34
2025 Federal Impacts to California’s Coast and Ocean	38
OPC Science Advisor	40
OPC Summer Internship Program	42

**COVER PHOTO: OPC’s Photo of the Month for December 2025 by Nicky Rosenberg /  
Spanish shawl nudibranch in San Diego.**

# Introduction

The California Ocean Protection Council (OPC) is committed to improving scientific understanding, increasing resilience, raising awareness, and coordinating across state agencies and external partners to integrating changing coastal and ocean conditions into state, regional, and local policies and planning. In the [Strategic Plan to Protect California's Coast and Ocean 2020-2025](#) (Strategic Plan), OPC committed to annually reporting on the status of activities that advance OPC's strategic priorities and to provide an overview of critical issues impacting California's coast and ocean.

Throughout 2025, the final year of its 2020-2025 Strategic Plan, OPC investments and programmatic work advanced efforts across each of the four Strategic Plan goals centered on: Climate Change, Advancing Equity, Enhancing Biodiversity, and a Sustainable Blue Economy.

- **SB 1 Sea Level Rise Adaptation Grant Program.** Throughout 2025, the [Senate Bill 1 Sea Level Rise Adaptation Grant Program](#) (SB 1 Grant Program) provided local assistance for sea level rise adaptation planning projects through 18 local projects across California – from Humboldt County to Los Angeles County – amounting to \$18,770,352. Projects included 11 San Francisco Bay shoreline projects and 7 outer coast projects. As a complementary effort, OPC's Senate Bill 1 Technical Assistance Program (SB 1 TA Program), administered in partnership with Coastal Quest, was extended in December 2025 through 2027 to continue providing tailored application support to SB 1 Grant Program applicants as they prepare Track 1 (Planning), Track 2 (Implementation), or Tribal Track (Tribal Cultural Resources) applications. View all funded projects on the [interactive map](#) of SB 1-funded projects.
- **SB 1 Sea Level Rise Tribal Cultural Resources Program.** In 2025, OPC launched the [Senate Bill 1 Sea Level Rise Tribal Cultural Resources Funding Program](#) to provide funding to California Native American tribes to assess and plan for the impacts of SLR on their ancestral lands, cultural sites, lifeways, and resources.
- **Resolution on Ocean Acidification and Hypoxia (OAH):** Recognizing the role of land-based nutrient inputs in contributing to OAH and impacting the health of California's marine

environment, with implications for ecologically and economically important marine species, the Council adopted a [Resolution on Ocean Acidification and Hypoxia](#).

- **Environmental Justice and Tribal Small Grants:** OPC funded a second round of environmental justice small grants, in partnership with the California Coastal Commission's 2025–26 cycle of the [WHALE TAIL® Competitive Grants Program](#) to advance coastal education, cultural practices, stewardship, and resilience while strengthening community connections to the coast and ocean. This small grant program includes \$1,000,000 dedicated for tribal communities.
- **Equity Plan Assessment:** OPC completed its first [Equity Plan Assessment](#) to assess the progress made since the OPC [Equity Plan](#) to evaluate progress made to-date and inform future actions to strengthen implementation of the Equity Plan, and ensure the impact of OPC's investments and actions are inclusive and benefit the diverse communities of California.
- **IUCN Green List:** California's marine protected area (MPA) network was [officially accepted to the International Union for Conservation of Nature \(IUCN\) Green List of Protected and Conserved Areas](#), a high-profile international certification that recognizes the most successful examples of biodiversity conservation worldwide. California's system of marine protected areas, or MPAs, is the first nature network in the world to receive this honor.
- **Conserving 30% of Coastal Waters by 2030 (30x30):** OPC developed an ambitious, world-leading approach to conserving 30% of California's coastal waters by 2030 (the "30 by 30" or "30x30" initiative) with the release of a [Roadmap to 30x30 in Coastal Waters](#) that defines 30x30 Conservation Areas for coastal and marine ecosystems.
- **Kelp:** OPC-funded research and restoration activities are helping to support kelp forest resilience in the face of a changing ocean, with one [restoration project](#) on California's north coast resulting in a 900% increase in kelp cover this year – thanks to a combination of purple urchin removal and innovative kelp outplanting techniques.
- **Draft Blueprint for Building a West Coast Science Collaborative for Offshore Wind.** OPC released the [Draft Blueprint for Building a West Coast Science Collaborative for Offshore Wind](#) to inform the establishment a West Coast Science Collaborative for Offshore

Wind (WCSC) to provide objective scientific expertise, elevate tribal science and Traditional Knowledges, and inform coordinated environmental research, monitoring, and analysis.

- **Offshore Wind Environmental Monitoring Framework.** OPC has continued to advance development of a **comprehensive environmental monitoring framework for offshore wind**, in partnership with the California Marine Sanctuary Foundation to inform responsible offshore wind development off the California coast. The framework will be released in Summer of 2026.

## 2026-2030 Strategic Plan to Safeguard California's Coast and Ocean for All Californians

In 2025, the Ocean Protection Council approved its **2026–2030 Strategic Plan: Safeguarding Our Coast and Ocean for All Californians**, an ambitious blueprint that will guide the Council’s investments and priorities through the end of this decade. Building on OPC’s previous Strategic Plan and foundational advancements made during the Newsom Administration, this Plan clearly reflects what OPC heard in public meetings and tribal consultations across the state as it worked to develop the Plan over the last year—a call for healthy oceans, resilient coastal communities, a commitment to science, and a future where people and nature thrive together.

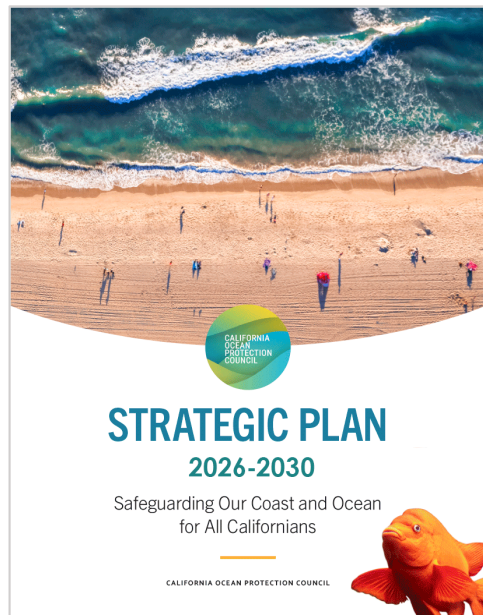
The 2026-2030 Strategic Plan advance OPC’s mission to protect California’s coast and ocean through four interconnected goals:

**Goal 1: Build Resilience to Climate Change**

**Goal 2: Maximize Community Benefits and Stewardship**

**Goal 3: Safeguard Coastal and Marine Biodiversity**

**Goal 4: Enable a Sustainable Blue Economy that Protects Ocean Health**



# 2025 Council Members

## **Wade Crowfoot**

Secretary for Natural Resources, Council Chair

### **Yana Garcia**

Secretary for Environmental Protection

### **Dawn Addis**

State Assembly

### **Eleni Kounalakis**

Lieutenant Governor

### **Alexis Jackson**

Public Member

### **Ben Allen**

State Senate

### **Megan Rocha**

Public Member



OPC's Photo of the Month for October 2025 by Taylor Steigerwalt /  
[California brown pelican](#) at [Crystal Cove State Park](#)

# 2025 Investments

<b>Goal 1: Climate Change</b> ●	
Coastal Resilience & Sea Level Rise	\$31,270,352 <sup>1</sup>
Ocean Acidification & Hypoxia, Harmful Algal Blooms	\$6,000,000 <sup>2</sup>
<b>Goal 2: Equity</b> ●	
Environmental Justice and Tribal Small Grants	\$2,000,000
<b>Goal 3: Biodiversity</b> ●	
Protecting & Restoring Coastal & Marine Ecosystems	\$905,014
Marine Protected Areas	\$9,621,000
Sustainable Fisheries	\$2,400,000
<b>Goal 4: Sustainable Blue Economy</b> ●	
Offshore wind	\$3,000,000
Cross-cutting	\$1,372,500
<b>TOTAL</b>	<b>\$56,568,866</b>

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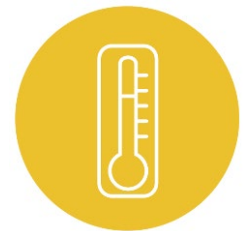
1 This includes funding approved by the Council for Track 1 (Planning Projects), and the authorization of \$7 million for Track 2 (Implementation Projects) and \$5 million for Tribal Cultural Resources projects. Selected projects for Track 2 and Tribal Cultural Resources will be awarded in 2026.

2 Approved by Council for distribution in 2025, selected projects will be awarded in 2026.

# 2025 Accomplishments & Progress



## Goal 1: Safeguard Coastal and Marine Ecosystems and Communities in the Face of Climate Change



### Objective 1.1: Build Resiliency to Sea Level Rise, Coastal Storms, Erosion, and Flooding

#### Senate Bill 1 Sea Level Rise Adaptation Grant Program

The State of California is committed to helping tribal, regional, and local governments prepare and increase resilience to the impacts of sea level rise, such as flooding, erosion, and habitat degradation and loss. OPC launched the **Senate Bill 1 Sea Level Rise Adaptation Grant Program** (SB 1 Grant Program) to provide local assistance for sea level rise adaptation planning and implementation projects, resulting in **18 local projects amounting to \$18,770,352, approved in 2025** to prepare for sea level rise. Of the 18 projects approved, 11 are located in the San Francisco Bay, and 7 are along the Outer Coast. The majority of the awarded grants support sea level rise

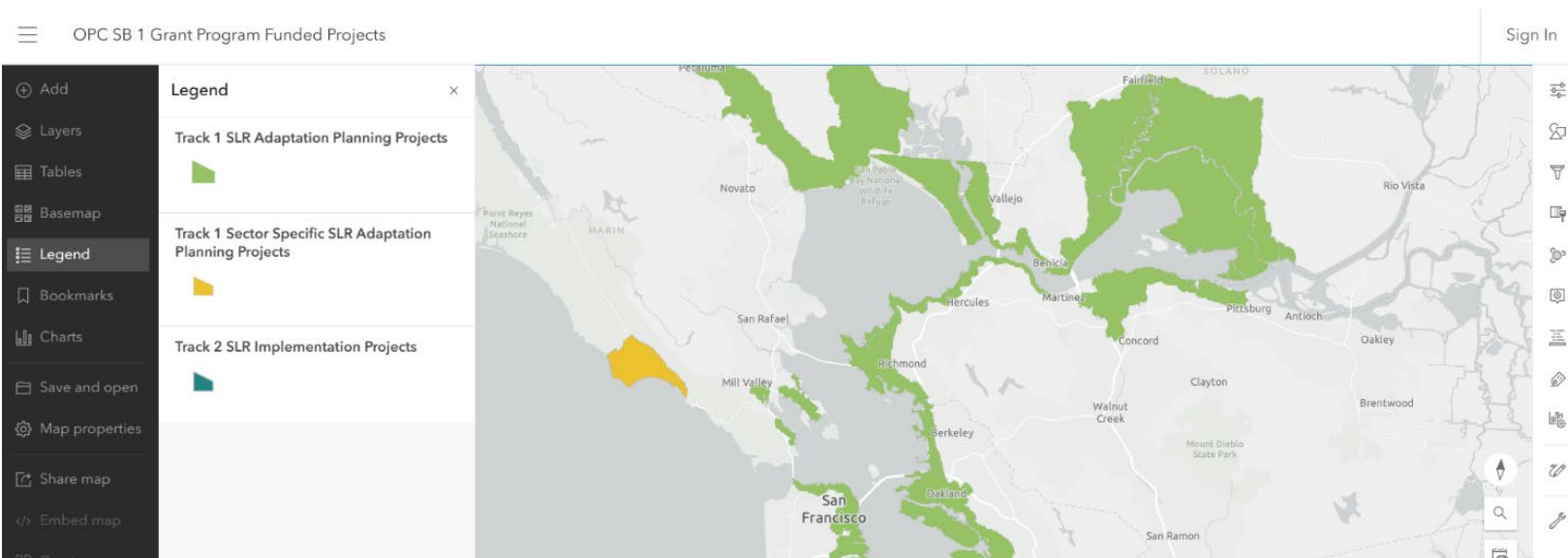
adaptation planning across the state (from San Diego to Humboldt County), while one supports an expansion of the SB 1 Technical Assistance Program.

In 2025, **SB 1 Tribal Cultural Resources Funding Program** solicitation was launched, in response to an identified need for more flexible and accessible funding to support California Native American tribes in assessing and planning for the impacts of sea level rise on tribal cultural resources, ancestral lands, and heritage. This includes support California Native American tribes in conducting vulnerability assessments on tribal cultural resources to inform their own planning efforts, and to meaningfully consult in local and regional planning processes.

In December 2025, the Council approved \$7 million for the first competitive round of **Track 2: Implementation Projects** to fund nature-based sea level rise adaptation implementation projects on the outer coast or the San Francisco Bay shoreline that directly advance local and regional sea level rise adaptation plans. The solicitation launched in 2026.

**Technical Assistance Program:** OPC launched the Senate Bill 1 Technical Assistance Program (SB 1 TA Program) in March 2024, in partnership with Coastal Quest. Complementing the SB 1 Grant Program, the SB 1 TA Program supports eligible local, regional, and tribal governments facing significant sea level rise threats along the California coast and San Francisco Bay shoreline in preparing applications for the SB 1 Grant Program. Services include grant requirement guidance, proposal development, project conceptualization, and more.

To better communicate, assess the reach of the program, and to support coordination across projects, OPC launched an [interactive map](#) of all SB 1-funded projects.



# Achieving California's Coastal Habitat Goals

## Coastal Habitat Mapping

To understand the current extent and acreage of coastal habitats, in order to understand these habitats now and their vulnerability to sea level rise and other future threats, OPC, in partnership with San Francisco Estuary Institute (SFEI) and Southern California Coastal Water Research Project (SCCWRP), convened a series of expert panels in early 2025 to improve mapping across coastal habitats. The panel finalized a [white paper](#) that characterizes and evaluates the different approaches for mapping and tracking acreages across for four coastal habitats: beaches and dunes, wetlands, eelgrass and rocky intertidal habitats. The white paper also discusses how to define habitat boundaries, collect and analyze data, and produce routine updates to maps in a cost-effective manner. This effort supports OPC's Strategic Plan goals for coastal habitat acreage targets and helps other state agencies meet mandates to track habitat acreages under AB 1757, [California's Nature-Based Solutions Climate Targets](#). An informational [webinar](#) was held December 1, 2025.

## Objective 1.2: Minimize Causes and Impacts of Ocean Acidification and Hypoxia

### Improving Understanding of Ocean Acidification and Hypoxia Vulnerability

#### Resolution on Ocean Acidification and Hypoxia

The California coast is vulnerable to ocean acidification and deoxygenation, known as hypoxia, (OAH) which are exacerbated by global climate change. Over the past decade, OPC made significant investments to advance understanding of OAH off California's coast, consistent with the [West Coast OAH Science Panel Major Findings, Recommendations, and Actions](#) and [California Ocean Acidification Action Plan](#). This includes the development of a coupled physical-biogeochemical model for the West Coast to help managers better predict and

understand the impacts of OAH in California – including whether California’s coastal waters are too acidic or lack sufficient oxygen to support vulnerable marine life.

**Recent model results** funded by OPC have shown that in the Southern California Bight, land-based nutrient inputs are contributing to OAH and impacting the health of California’s marine environment, with implications for ecologically and economically important marine species. OPC continues to pursue additional questions to better understand these impacts, advance monitoring of OAH off California’s coast, and expand the state’s understanding of OAH along the entire coast of California. In 2025, the Council adopted a **Resolution on Ocean Acidification and Hypoxia** committing OPC to the following actions:

- **Invest in and advance monitoring and research** to better understand OAH causes, impacts, evaluate pollutants contributing to OAH, and strengthen monitoring systems to inform effective ways to manage land-based nutrients.
- **Support development of water quality objective(s) and program on implementation**, in coordination with the State Water Resources Control Board to ensure the reasonable protection of California’s coastal and ocean ecosystems.
- **Advance and inform nutrient management approaches** to carefully invest public funds through early collaboration and information sharing with external stakeholders to effectively address and mitigate OAH.
- **Seek opportunities to advance multi-benefit infrastructure upgrades for water recycling** to ensure infrastructure upgrades and water recycling are feasible, will meet water quality objectives, address aging infrastructure challenges, and advance OAH and nutrient remediation efforts to protect the beneficial use of California ocean waters.

**Modeling the Effects and Strategies to Address Ocean Acidification and Hypoxia.** The California coast is vulnerable to ocean acidification and deoxygenation, which are exacerbated by global climate change. Following the West Coast OAH Science Panel (2013) recommendations, OPC has provided foundational funding in partnership with the National Oceanic and Atmospheric

Administration (NOAA) to support the development of a coupled physical-biogeochemical model for the entire West Coast to help managers better understand and forecast the effects of ocean acidification and to determine whether reduction in local pollution inputs can mitigate ocean acidification and hypoxia stress to marine resources.

The Regional Ocean Modeling System (ROMS), coupled to the Biogeochemical Elemental Cycling model (BEC), modeling project has centered on three questions within the data-rich Southern California Bight:

- What is the effect of anthropogenic nutrients on algal blooms, oxygen, and pH?
- What are the biological effects of these changes?
- What are the effects of nitrogen management alone or in combination with potable water recycling?

In 2023, stakeholders funded and convened an Independent Review Panel (IRP) to review the scientific integrity of the coupled physical-biogeochemical OAH model. In February 2025, the IRP released its [final report](#), finding that the model can be used to address basic management questions about whether nutrient loads from treated wastewater discharges in the region have impacted the marine environment and ecosystem in the Southern California Bight and understand large-scale and first-order impacts. OPC and other stakeholders are currently assessing these recommendations for potential future investments, recognizing that models require ongoing refinement and advancements over time.

Through the IRP process, resource managers gained another layer of confidence in using the modeling tools' predictions as a basis for decision-making and taking action, as well as providing an important venue for collaboration across stakeholder groups.

**Improving Land-Based Nutrient Management to Reduce the Impacts to California's Coast and Ocean.** Addressing land-based sources of nutrients that discharge to the coast, particularly from major wastewater treatment plants (i.e., those that discharge 100 million gallons per day (MGD) or more) in Southern California, is critical to preserving coastal and marine ecosystems. In October

2025, HDR, Inc. and the California Association of Sanitation Agencies (CASA) released the **Southern California Bight Nutrient Management Evaluation**. This report quantifies the amount of nitrogen discharged into the Southern California Bight from several publicly owned treatment works and estimates the potential impacts of water recycling and planned future technological upgrades that could reduce nitrogen discharge loads to the coastal ocean in this region. This information on current and potential planned nutrient discharge reductions could help inform coordinated strategies for improved management of ocean acidification, hypoxia, and harmful algal blooms off California's coast.

## Objective 1.3: Improve Understanding of Climate Impacts on California's Coast and Ocean

### Assessing Tools to Mitigate Climate Change

#### **Marine Carbon Dioxide Removal (mCDR) Considerations for California**

Carbon Dioxide Removal (CDR) refers to technologies, approaches and practices that draws down carbon dioxide from the atmosphere and store it long-term on land, underground, or in the ocean. Marine CDR (mCDR) uses ocean processes to increase the amount of atmospheric carbon dioxide taken up by the ocean and stored either in the ocean or a geologic reservoir. These approaches include:

1. **Altering seawater chemistry** to increase its alkalinity and enable additional absorption of carbon dioxide (Ocean Alkalinity Enhancement or OAE)
2. Using **electrochemical approaches** to remove dissolved carbon dioxide from seawater and sequestering it elsewhere (deep sea or geologic formations)
3. **Adding nutrients** such as iron to encourage phytoplankton growth (Ocean Iron Fertilization or OIF)
4. **Growing kelp and sinking it** to the deep ocean (macroalgal cultivation and deep ocean sequestration).

Recognizing the increased interest in mCDR as a potential approach to mitigate carbon emissions, OPC staff provided an **informational item** to the Council in March 2025, acknowledging it is still considered an emerging area of research and development with many unknowns. This includes varying levels of technology, varying potential carbon benefits, and wide range of environmental impacts that are dependent on each approach and location on the coast.





## Goal 2: Advance Equity Across Ocean and Coastal Policies and Actions



### Objective 2.1: Enhance Engagement with Tribes

#### Tribal Engagement Strategy

Since its adoption in 2022, the Tribal Engagement Strategy has provided a framework for OPC’s engagement with tribes in all aspects of its work, and it has guided OPC’s support for tribal science, stewardship, land return, and access to the coast and ocean. Though the Tribal Engagement Strategy intentionally includes a wide array of actions and priorities expressed by tribes during listening sessions and consultations, in implementing the Strategy over the last three years, OPC has focused on 1) institutionalizing meaningful tribal engagement, 2) providing funding to support

tribal priorities, and 3) developing policy to advance tribal stewardship of the coast and ocean. OPC staff provided an **informational item** at the December 2025 Council meeting detailing progress made on OPC's ongoing efforts to implement the Tribal Engagement Strategy:

- 1) **Institutionalizing meaningful tribal engagement:** Over the last three years, OPC has worked to institutionalize meaningful, respectful, and effective tribal engagement to create strong and lasting partnerships with tribes through increasing internal staff capacity to work on tribal affairs, including both formal consultation and informal collaboration to ensure early, often, and meaningful engagement across OPC initiatives.
- 2) **Providing funding to support tribal priorities:** Since the adoption of the Tribal Engagement Strategy, OPC has provided close to \$15 million in funding to California Native American tribes to support tribally-led science, tribal stewardship, land return, and access to the coast and ocean.
- 3) **Developing policy to advance tribal stewardship of the coast and ocean:** Recognizing tribes hold deep knowledge about how to care for the state's coastal and ocean ecosystems, as the original stewards of the lands and waters that are now known as California, OPC is committed to working in close collaboration with tribes to support tribal stewardship. This has included inclusion of tribal science and Traditional Knowledges on OPC advisory bodies, recognition of Tribal Stewardship Areas as 30x30 Conservation Areas, support for the Chumash Heritage National Marine Sanctuary, and supporting the development of tribally-led Indigenous Marine Stewardship Areas.

## Objective 2.2: Enhance Engagement with Underserved Communities

### Environmental Justice and Tribal Small Grants

OPC funded a second round of environmental justice small grants in 2025, in partnership with the California Coastal Commission's 2025-26 cycle of the **WHALE TAIL® Competitive Grants Program** to advance coastal education, cultural practices, stewardship, and resilience while strengthening community connections to the coast and ocean. This small grant program

includes \$1,000,000 dedicated for tribal communities. Awards will be made up to \$50,000, with at least 25% of non-tribal awards reserved for micro-grants up to \$25,000 to increase the reach of the program for smaller community-based organizations. Selected awardees will be announced in 2026.

## Environmental Justice Advisory Board

The **Environmental Justice Advisory Board** for California's Coast and Ocean (EJ Advisory Board) was first convened in 2024 to help inform and provide advice to better address the ocean and coastal needs of California communities. The EJ Advisory Board meets quarterly to provide equity and environmental justice expertise, advising the State of California on how to better reach California communities and advance these priorities across its coastal and ocean programs and policies.

Quarterly meetings alternated between hybrid in-person meetings and virtual meetings, serving as a platform for collaboration between Board members, OPC leadership, and community representatives, fostering discussions on ocean and coastal policies, OPC's 2026-2030 Strategic Plan, informing the 2026 California Coast and Ocean Report equity analysis, and guidance in developing the first Assessment of OPC's Equity Plan. Throughout the year, Board members also delivered flash talks highlighting local priorities, sparking dialogue on partnership opportunities and alignment with OPC's initiatives.

Key highlights this year included an in-person Equitable Grantmaking and Partnerships Roundtable held in Imperial Beach, where San Diego-based partners—including Dr. Donna Auguste (Auguste Research Group), Nic Brisebois (Queer Surf), Coach Jackson (Coastal Defenders), and Meagan Openshaw (City of Imperial Beach)—shared experiences and proposed strategies for improving access to state funding, strengthening partnerships, and ensuring inclusive engagement in ocean conservation and coastal access. The discussion emphasized best practices and recommendations for making state resources more accessible to underrepresented and under-resourced groups and communities. The EJ Advisory Board also had a guided tour of the Tijuana River Estuary led by California State Parks staff, providing firsthand insight into the region's cross-border ecological challenges, restoration efforts, and conservation opportunities. With ongoing facilitation support

from Better World Group, the Board remains committed to ensuring that California’s coastal and ocean policies are informed by the knowledge, needs, and priorities of the state’s diverse communities.

## Equity Plan Assessment

OPC completed its first **Equity Plan Assessment** to assess the progress made since the OPC **Equity Plan** to evaluate progress made to-date and inform future actions to strengthen implementation of the Equity Plan, and ensure the impact of OPC’s investments and actions are inclusive and benefit the diverse communities of California. Key points of progress from 2022-2025 include:

- **Goal 1 – Equitable Engagement, Outreach, and Funding:** Approximately 45% of OPC-awarded funds between 2022-2024 (from \$100 million total projects awarded) directly benefited California Native American tribes, environmental justice communities, and other priority populations. During this time, OPC also launched the **Environmental Justice Small Grants Program**, **SB 1 Technical Assistance Program**, and updated **Proposition 68 Grant Guidelines** and **General Grant Guidelines** to reduce barriers and improve access to state funding.
- **Goal 2 – Building an Inclusive Workplace and Workforce:** Since 2022, OPC has strengthened its internal capacity to meet emerging needs and better support equity, environmental justice, and community engagement across all program areas and has continue to expand access to early ocean careers. OPC expanded internship and fellowship opportunities (e.g., OPC Summer Internship Program) to strengthen coastal career pathways, and increased staff training on equity, cultural humility, and tribal engagement.
- **Goal 3 – Designing Equitable Coastal and Ocean Policy Making:** OPC continues to improve how community perspectives are reflected in Council discussions and decisions. OPC launched the **Environmental Justice Advisory Board for California’s Coast and Ocean**, has embedded equity considerations into all staff recommendations presented to the Council, and continues hybrid meetings and public outreach to increase engagement.

- **Goal 4 - Integrating Equity in Coastal and Ocean Science and Research:** OPC invested in initiatives that elevate diverse knowledge types and advance collaborative science. Examples including supporting the expansion of the **Tribal Marine Stewards Network (TMSN)**, which has grown from four to now six coastal tribes, supporting CNRA's **Tribal Nature-Based Solutions Program** to support tribally-led projects along the coast, and funding the Ocean Corps Pilot Program with the **California Conservation Corps** to strengthen community-based stewardship and workforce development.



**Staff from three TMSN member nations conduct a Tribal Intertidal Digital Ecological Survey (TIDES) near Smith River, California. “I see a huge sense of pride. I’ve seen young people have job opportunities they never would have had before,” said Megan Rocha. Photo: Tara Dettmar/TMSN**



## Goal 3: Enhance Coastal and Marine Biodiversity



### Objective 3.1: Protect and Restore Coastal and Marine Ecosystems

#### Managing California's Marine Protected Area Network

The 2023 Marine Protected Area (MPA) **Decadal Management Review** provided 28 priority recommendations to advance adaptive management of the MPA Network. This ten-year retrospective included updates from across the four pillars of the MPA management program (outreach, research, policy, and enforcement) and results from long-term MPA monitoring. The Decadal Management Review indicate that MPAs are working to protect California's unique coastal and marine biodiversity. Specifically, the Decadal Management Review showed that, in many cases, California's MPAs are supporting larger and/or more abundant sea life.

OPC continues to advance management of the MPA Network through improved monitoring and understanding, in partnership with the California Department of Fish and Wildlife (CDFW).

**MPA Monitoring and Enforcement.** In March 2025, the Council approved over **\$4.5 million** to advance management of California’s MPA Network through long-term monitoring, better understanding human uses of these areas, and enforcement through the MPA Watch program. This projects selected through the competitive solicitation, in partnership with CDFW and California Sea Grant, **2025 California Mid-Depth Rocky Reef MPA Monitoring Request for Proposals (RFP)** to inform management of California’s MPA Network through improved monitoring of mid-depth rocky reef habitats. OPC’s continued investment is vital to support ongoing long-term monitoring of the MPA Network to inform adaptive management and contribute to broader state priorities, such as sustainable fisheries and climate resilience.

The Council additionally supported the expansion of the expansion of an existing **OPC-funded project** by the California Marine Sanctuary Foundation to understand social dimensions of ocean access and MPAs across California’s coastal counties in five new counties (Del Norte, Humboldt, Sonoma, Los Angeles, and San Diego) and by Resources Legacy Fund to better understand broader human uses in MPAs across five regions, and help tailor management strategies to local needs and improve overall compliance and effectiveness of MPAs. In June 2025, the Council authorized **over \$5 million** to support increased MPA compliance and enforcement by CDFW Law Enforcement Division and the community-driven MPA Watch to help protect and enhance marine biodiversity within these special areas.

### **MPA Leadership Team**

Originating in 2014, the MPA Statewide Leadership Team (Leadership Team) serves as a standing advisory body to ensure communication, collaboration, and coordination among entities that have significant authority, mandates, or interests that relate to the MPA Network. In July 2025, the Leadership Team released a **new five-year work plan**, focusing on a new set of actions to make California’s MPA program more accessible, inclusive, and effective. These efforts include targeted outreach and education efforts to new and diverse communities, strengthening partnerships with

California Native American tribes, and improving how MPA enforcement information is collected, analyzed, and shared.

Nominations for 8 Tribal Representatives on the Leadership Team also opened in October 2025 through January 2026, to include one primary representative, and one alternate across four coastal regions: North Coast, North Central Coast, Central Coast, and South Coast). Each representative plays a key leadership role in advancing the goals of the MPA management program, including outreach, enforcement, research, and policy.

## Chumash Heritage National Marine Sanctuary

In October 2024, California saw the designation of the **Chumash Heritage National Marine Sanctuary** by the National Oceanic and Atmospheric Administration (NOAA). The new Chumash Sanctuary represented the first tribally nominated sanctuary and is the third largest in the nation. Effective November 30, 2024, the sanctuary encompasses 4,543 square miles off the Central California Coast and will protect areas of cultural significance to California Native American tribes, prioritize tribal stewardship, and safeguard marine life and habitats in an exceptionally biodiverse region.



In December 2025, the Chumash Heritage Marine Sanctuary Advisory Council held its first meeting. The 33-member (18 voting and 15 non-voting) community-based advisory body provides a public forum for consultation and deliberation on resource management issues affecting the waters within the sanctuary. OPC sits on this Advisory Council on behalf of the State of California.

A core element of Chumash Heritage National Marine Sanctuary is developing and implementing a **Framework for Indigenous Collaborative Co-Stewardship**. This is intended to inform the formation of a special Sanctuary Advisory Council working group—the Indigenous Cultures Advisory Panel—to provide for the respectful and meaningful involvement of representatives and partners from multiple local Tribes and Indigenous communities.

## Los Angeles Post-Wildfire Monitoring and Recovery

The tragic wildfires in Southern California left a profound and lasting impact on the state and region. Given the unprecedented nature of these fires and the proximity of burned areas to the urban coastline, OPC closely coordinated with state and local agencies on the impacts to affected communities and coastal ecosystems, including direct threats to human health and safety, such as toxicity and pollution.

OPC provided critical, emergency funding for monitoring post-fire impacts on the environment and local communities to support recovery and resilience in the Los Angeles region. The Southern California Coastal Water Research Project, in partnership with the Los Angeles Regional Water Quality Control Board, coordinated a regionwide network of over 50 agencies, academic institutions, and conservation organizations to monitor wildfire impacts on aquatic habitats. In April, the Los Angeles County Department of Public Health launched a **post-fire assessment dashboard** as part of a broader monitoring coordination effort funded by OPC. The dashboard provides a map of monitoring locations as well as data related to air, soil, and water quality.

Partners at the Ocean Science Trust also hosted an **expert briefing** in April 2025 on the impacts of wildfires on coastal and ocean health, sponsored by State Senator Ben Allen and Assemblymember Jacqui Irwin. The briefing explored how wildfire smoke, ash, and debris impact coastal and marine ecosystems, as well as current methods for monitoring these impacts. The California Water Quality Monitoring Council, co-chaired by the State Water Resources Control Board and OPC, focused two of its quarterly meetings in 2025 on wildfire monitoring and response: the **August 2025 meeting** focused on aquatic ecosystem monitoring and impacts, and **November 2025 meeting** focused on drinking water systems monitoring and impacts from the Los Angeles wildfires.

# California's International Leadership to Conserve Biodiversity and Protect Marine Ecosystems

## International Union for Nature (IUCN) World Conservation Congress

In October 2025, OPC represented the State of California at the International Union for Conservation of Nature (IUCN) World Conservation Congress in Abu Dhabi, United Arab Emirates, the largest environmental convening on the planet. The convening only happens once every four years, drawing leaders from across the globe to set the global conservation agenda for the next decade and beyond. At the Congress, Governor Newsom **announced in a video address** that California would make history as one of two U.S. states, alongside Massachusetts, to officially join IUCN as subnational government members. OPC also accepted the globally renowned **IUCN Green List Award**, which recognizes the most successful examples of place-based conservation worldwide, on behalf California's marine protected area network – the first nature network in the world to receive this honor.

## Sharing Lessons Learned to Strengthen International Marine Biodiversity Conservation

In November 2025, OPC joined a Marine Spatial Planning (MSP) Learning Forum in La Serena, Chile to share lessons learned from the California Marine Protected Area (MPA) Network, and on how to balance multiple uses in ocean and coastal waters. This forum was sponsored by Proyecto Humboldt II, the second phase of a five-year binational project between Chile and Peru entitled "Catalyzing the Implementation of a Strategic Action Program for the Sustainable Management of Shared Living Marine Resources in the Humboldt Current System." The Forum was designed to share case studies and expertise from around the globe including the U.S., Canada, and Brazil to support Chile's ongoing commitment to strengthen marine governance and provided an opportunity to continuing building a collaboration between the California and Chilean governments to advance biodiversity priorities and achieve 30x30.

# Conserving 30% of Coastal Waters by 2030

California's lands and coastal waters are home to biodiversity found nowhere else on Earth. California's 30x30 initiative, codified as state law, is part of an international movement to conserve natural areas across the planet to combat the triple planetary crisis of climate change, biodiversity loss, and pollution.

OPC **leads the state's effort** to achieve 30x30 in coastal waters. The **Roadmap to Achieving 30x30 in California's Coastal Waters** was adopted by OPC in June 2025, advancing the state's commitment to conserve 30% of California's coastal waters by 2030 and ultimately informing the evaluation of coastal waters that count as "conserved."

To qualify as 30x30 Conservation Areas, areas must meet both elements of the **Pathways to 30x30** definition of coastal waters "that are **durably protected** and **managed to sustain functional ecosystems**, both intact and restored, and the diversity of life that they support." 30x30 Conservation Areas in coastal waters can meet this in one of several ways:

- Tribal Stewardship Areas
- Fully or highly protected Marine Protected Areas
- Areas that are not MPAs, but managed with significant biodiversity benefit

With the adoption of this roadmap, California has increased state coastal waters qualifying as conserved **from 16.2% to 21.9%:**

- State MPA network: 546,000 acres (16.2%)
- Chumash Heritage National Marine Sanctuary: 191,000 additional acres (5.7%)
- University of California Natural Reserves: 150 additional acres (< 1%)



**21.9%**  
of coastal waters  
currently conserved

## Objective 3.2: Protect and Restore Kelp Ecosystems

### Development of the Kelp Restoration and Management Plan & Advancing Kelp Forest Research and Restoration

To address the catastrophic loss of kelp across the state, and to adaptively manage these vital marine ecosystems, CDFW is leading the development of a statewide, ecosystem-based **Kelp Restoration and Management Plan (KRMP)** in partnership with OPC. The goal of the KRMP is to develop an adaptive, climate-ready approach to managing, protecting, and restoring giant and bull kelp forest ecosystems statewide.

In December 2024, **OPC approved \$775,000**, in addition to \$5.6 million awarded for projects to **accelerate kelp research and restoration in 2023**, to support two projects that advance adaptive management and resilience of kelp forest ecosystems. This includes the first-ever assessment of commercial and recreational harvest for giant and bull kelp, and a comprehensive analysis of genetic diversity for giant and bull kelp across the state of California. Preliminary results from ongoing kelp restoration and research activities during summer 2025 suggest that novel kelp restoration techniques, including kelp outplanting coupled with grazer suppression, may be effective in restoring existing kelp beds. OPC-funded research activities are guiding future actions for kelp forest restoration and stewardship, and lessons learned from initial research will be integrated into CDFW's statewide Kelp Restoration and Management Plan.

The kelp crisis and restoration efforts received significant spotlight this year – As a lead-up to California Ocean Day 2025, OPC hosted a public film screening of **Sequoias of the Sea**, an award-winning documentary that explores the cascading impacts of kelp collapse on Northern California's coastal communities. The film follows the local, cultural, and ecological consequences of kelp loss and uplifts efforts to restore these critical ecosystems.

And in June 2025, Secretary Crowfoot hosted a “**Secretary Speaker Series: Saving California's Underwater Forests**,” diving into the issues threatening kelp ecosystems in California and hosting discussion alongside scientists, divers, artists, and tribal members – all who are fighting to protect and restore these magnificent ecosystems.

## Reintroduction of the Sunflower Sea Star

Like kelp forests, all of California's nearshore rocky reefs are complex habitats driven by many layers of ecological interactions. A key marine predator, the Sunflower Sea Star, was once abundant in temperate intertidal and subtidal habitats from the Aleutian Archipelago to central Baja California. The onset of Sea Star Wasting Disease in 2013 caused the collapse of this critical species across its range, with near total extinction in California. The loss of the Sunflower Sea Star in 2013, combined with a marine heatwave from 2014-2016, may have facilitated unprecedented conditions for kelp forest collapse on California's north coast.

Recent partnerships between the State of California, the Nature Conservancy, and other collaborators, resulted in the launch of the Pacific Coast Ocean Restoration initiative (PCOR), which directly supports Sunflower Sea Star captive breeding in California. Unprecedented success in this captive breeding program, and recent peer-reviewed science, have prompted further action to rescue this species from extinction. In September 2025, OPC awarded funds to support the success of captive breeding and inform the potential reintroduction of Sunflower Sea Stars in California.



## Objective 3.3: Support Sustainable Marine Fisheries and Thriving Fish and Wildlife Populations

### Reducing Marine Life Entanglement in Fishing Gear

Reports of whale and marine life entanglement in fishing gear off the California coast have increased dramatically since 2014. Changing ocean conditions, changes in fishing effort, increased public awareness and reporting, and other factors, have likely contributed to this rise in reported entanglements. Unfortunately, **more entanglements** in both Dungeness crab and unknown fishing gear were reported in the 2024-2025 season than in the past four seasons.

The California Department of Fish and Wildlife (CDFW) assesses marine life entanglement risk for the Dungeness crab fishery through the Risk Assessment and Mitigation Program (RAMP).

**Updated RAMP regulations** came into effect in October 2025, which include a pathway for the approval of alternative gear during a fishery closure after April 1. CDFW conducted the **first risk assessment** of the 2025/2026 Dungeness crab season on October 24 2025, which delayed the opening of the commercial season until at least January 1, 2026.

OPC continues to support reducing the risk of marine life entanglement in fishing gear, while ensuring thriving fisheries, by supporting entanglement response, investing in research and monitoring, piloting ropeless gear, and expanding collaborations. In 2024, OPC **approved funding** to support the purchase of purple and black marked line for the commercial Dungeness crab fleet. Updated RAMP regulations require that commercial fishermen use marked line to enable CDFW and the National Marine Fisheries Service to better identify the fishery source of marine life entanglements. In fall 2025, the Pacific States Marine Fisheries Commission and CDFW purchased and distributed of 4,000 coils (4,800,000 feet) of marked line to 365 fishermen through five distribution events in Eureka, Crescent City, and Morgan Hill.

In response to a 2024 recommendation from the **Dungeness Crab Task Force**, OPC funded The Nature Conservancy and the Pacific Coast Federation of Fishermen's Associations to expand an industry-led effort to recover lost Dungeness crab gear. In 2025, the Fishermen's Gear Recovery

Network expanded statewide and launched an **online reporting form** for ocean users. The Network trains and employs Port Coordinators to orchestrate lost gear recovery across the state; through this partnership-based model, fishermen or other “eyes on the water” report lost gear using an online form, commercial fishermen are paid to recover lost gear, and Port Coordinators across the state process lost gear and sell it back to its owner at low cost. This collaboration is empowering fishermen to take an active role in ocean stewardship and thereby ensure vibrant fisheries and healthy ecosystems.

## Fishery Closures Due to Harmful Algal Blooms

Starting in December 2024 and peaking in March and April 2025, the Central and Southern California coast experienced several harmful algal bloom (HAB) events. These blooms consist of *Pseudo-nitzschia*, which produces the neurotoxin domoic acid that widely impacts marine mammals and shorebirds, and *Alexandrium*, which produces saxitoxin, a paralytic neurotoxin. Additionally, blooms of two additional HAB species, occurred during this time, with the ecological effects unknown.

Domoic acid and saxitoxin can be harmful to humans and marine animals alike. To prevent humans from ingesting contaminated seafood and becoming ill, **shellfish advisories and commercial and recreational sardine fishery restrictions** were implemented in Southern California due to both toxins. This is the first known prolonged saxitoxin advisory for shellfish in Southern California. Although these fishery closures are important to protect human health, they can be harmful to the fisheries economy.

Domoic acid caused 1,670 animal strandings (sea lions, dolphins, and seabirds) as of mid-May 2025, marking the worst domoic acid event off the California coast in the past four years, overwhelming the capacity of marine mammal rescue centers. OPC supports these rescue efforts by providing ongoing funding for the Marine Mammal Stranding Network through a \$2 million appropriation by the Legislature in the 2024 Budget Act. OPC also supported the **deployment of six Imaging Flow Cytobots (IFCBs)** – automated, real-time sampling technology that enhanced HAB early warning systems and response along the California coast.

## Objective 3.4: Improve and Protect Coastal and Ocean Water Quality

### Implementation of the Statewide Microplastics Strategy

OPC adopted a first-of-its-kind **Statewide Microplastics Strategy** in 2022, pursuant to Senate Bill 1263 (Portantino, chapter 609, statutes of 2018), which recommends early actions and research priorities to reduce microplastic pollution in California’s marine environment. Since the adoption of the Strategy, OPC has worked with state and external partners to share information and advance the goals of the Strategy.

**Microplastics Research.** In 2023, OPC and California Sea Grant provided \$1.9 million to fund five research projects addressing microplastics in California. These projects were selected through two competitive research calls focused on 1) improved understanding of aquatic microplastic contamination sources and ecological sensitivity, and 2) microplastic removal efficacy of low-impact development structural best management practices. On November 25, 2025, a **public webinar** was held to share findings from these research projects. State staff are actively considering how this work could inform California state agency research and management of microplastics in the future.

**Reducing Plastic Pollution Through Industry-Specific Workshops.** In March 2025, OPC hosted two workshops to develop practical strategies for reducing microplastic pollution from two targeted industries: textiles and vehicle tires. The textile workshop, held in partnership with Materevolve LLC, explored the full lifecycle of textiles—from materials and design to laundering and disposal—to identify voluntary actions, research priorities, and long-term policy opportunities. The vehicle tire wear workshop, held in partnership with the Ocean Science Trust, focused on informing innovation in tire materials, design, and on-vehicle tire wear collection devices that could reduce pollution.

- The **textile workshop report** summarizes outcomes and recommendations to prevent, address, and advance research and development to prevent and reduce plastic pollution.

- The [tire workshop report](#) summarizes outcomes and recommendations to advance innovation in tire materials, design, and on-vehicle tire wear collection devices that could reduce plastic pollution.

**Statewide Plastics Monitoring Plan & Standardized Methods.** OPC approved and initiated two foundational projects were approved and initiated that build from past OPC investments (ex: [Trash Monitoring Methods and Assessments Playbook](#)) to support the development of a coordinated statewide plastics monitoring network to track the efficacy of state and local policies to reduce plastic pollution:

- Microplastics field sample collection method standardization in ambient water, stormwater, sediment, and biota, such as fish tissue and shellfish.
- Development of statewide plastic (large debris) and microplastic monitoring plan.

In April 2025, a [Technical Report for Sediment and Biota Microplastics Sample Collection](#) was published April 2025. This document, created by the Southern California Coastal Water Research Project on behalf of OPC, standardizes methods that will ensure microplastic collection and analysis are done in a consistent manner across different sampling programs.

This project is one of the first steps towards designing and implementing a statewide plastic monitoring network to gain a better understanding of the extent and severity of microplastics contamination in coastal California, which will help inform potential policy solutions and management decisions.

**State Activities to Address Plastic Pollution.** Additional activities taken by the state in direct alignment with the Statewide Microplastics Strategy include [Guidelines for Addressing Plastic Pollution in Coastal Development Permits and Local Coastal Programs](#) released by the California Coastal Commission, which formalizes plastic pollution reduction measures in coastal planning and regulatory work. The Department of Toxic Substance Control additionally [conducted preliminary research on microplastics in specific consumer products](#) (including artificial turf

infill, detergents, paints, plastic film mulch, single-use cigarette filters, single-use food contact articles, among others), assessing potential for exposure, potential alternatives, and relevant regulations already in place both in and outside of California.





## Goal 4: Support Ocean Health Through a Sustainable Blue Economy



### Objective 4.1: Advance Sustainable Seafood and Thriving Fishing Communities

#### Advancing Climate-Ready Fisheries Management

California's dynamic ocean and coastal ecosystems are becoming increasingly variable as climate change impacts the marine environment, requiring a dynamic and rapid, data-informed approach to fisheries management. In 2025, OPC awarded funds for two projects led by the Resources Legacy Fund (RLF) to modernize data collection and advance climate-ready fisheries management: 1) conduct an electronic reporting and electronic monitoring pilot project for four fisheries

(Commercial Passenger Fishing Vessels, Market Squid Fishery, Set Gillnet Fishery, and Dungeness Crab Fishery), and 2) implement electronic data collection for the California Recreational Fisheries Survey (CRFS).

On August 14, 2025 the California Fish and Game Commission (CFGC) approved emergency changes to California's state **recreational groundfish regulations**, in addition to **final amendments to the Market Squid Fishery Management Plan** (FMP) and **updated regulations for the squid fishery**. Together, these regulations highlight the ongoing value of and need for state investment in long-term monitoring, innovative science, and stakeholder-informed processes to implement the **Marine Life Management Act (MLMA) Master Plan for Fisheries** and adaptively manage California's fisheries in California in the face of climate change.

**Increased Quillback Rockfish Opportunity.** Since 2023, California's commercial and recreational groundfish fisheries have been limited by stricter regulations and depth restrictions, when one groundfish species, Quillback Rockfish, was declared federally overfished. The overfished declaration was based on a data-limited federal stock assessment conducted in 2021. This year, the Pacific Fishery Management Council fasttracked **updated federal groundfish regulations** when an **updated stock assessment** based on improved data revealed that Quillback Rockfish are healthy, and not overfished as previously believed. The state responded by rapidly implementing emergency regulations to open state waters north of Point Conception to recreational fishing at all depths on August 28, 2025.

The stock assessment and resulting regulation changes were made possible by new data sources including the California Collaborative Fisheries Research Program (CCFRP), a community-based science program which brings together recreational anglers, charter boat captains and crew, and scientists to collect data on fishes inside and outside of California's Marine Protected Area Network (MPAs) statewide. With funding from OPC, CCFRP collects essential data on nearshore fishes, including Quillback Rockfish, to inform California's management of the MPA network and federal stock assessments.

## Improving Aquaculture through a Statewide Aquaculture Action Plan

Throughout 2025, OPC partnered with the Aquaculture Statewide Leadership Team, made up of the California Coastal Commission, Department of Fish and Wildlife, Fish and Game Commission, State Lands Commission, State Water Resources Control Board, State Coastal Conservancy, California Department of Food and Agriculture, and the California Department of Public Health, to develop a Statewide Aquaculture Action Plan. The Action Plan will provide direction to improve the management of existing and future aquaculture operations and build a more sustainable, equitable, and profitable aquaculture industry in California. The forthcoming Plan is centered around three goals:

- Improve California’s aquaculture governance framework through increased interagency coordination and transparency;
- Maximize environmental sustainability and protect public health; and
- Facilitate the expansion of sustainable marine aquaculture in state waters.

Over the last year, OPC staff have worked to elevate the highest priority actions in each of these goal areas, as identified by the leadership team, and anticipate releasing a draft Action Plan to the public early next year and presenting a final Action Plan to the Council in 2026.

## Objective 4.4: Guide Sustainable Renewable Energy Projects

### Informing Offshore Wind Development

**Draft Blueprint for Building a West Coast Science Collaborative for Offshore Wind.** California is committed to carbon neutrality by 2045 as part of its broader efforts to address climate change. Meeting this ambitious clean energy goal requires a portfolio approach that includes offshore wind energy, with planning goals of 5 gigawatts (GW) by 2030 and 25 GW by 2045. Establishment of a West Coast Science Collaborative for Offshore Wind (WCSC) can provide objective scientific

expertise, elevate tribal science and Traditional Knowledges, and inform coordinated environmental research, monitoring, and analysis.

In December 2025, OPC released the *Draft Blueprint for Building a West Coast Science Collaborative for Offshore Wind* to inform the establishment of this body, and ultimately support responsible offshore wind development by informing solutions to avoid, minimize, and mitigate impacts on ocean ecosystems, tribal cultural resources, and fisheries.

Concurrently, OPC approved **\$3 million to California Sea Grant** to support the launch and initial research and monitoring activities of the West Coast Science Collaborative, following public feedback on the Blueprint in 2026. This funding will build on existing investments to develop environmental monitoring guidance described in the section below, address key knowledge gaps, and support priority scientific needs, such as risk assessments for important species and habitats, targeted baseline data collection, and improved sampling during seasons that are currently underrepresented, such as winter months. Specific monitoring and research priorities will be refined during the WCSC's initial activities.

**Offshore Wind Environmental Monitoring Framework.** OPC has continued to advance development of a **comprehensive environmental monitoring framework for offshore wind**, in partnership with the California Marine Sanctuary Foundation to inform responsible offshore wind development off the California coast. Five working groups of technical experts were convened and met regularly throughout 2025 to support the project: Marine Mammals and Sea Turtles; Birds and Bats; Data, Technology and Innovation; Habitats and Ecosystems; and Fish and Invertebrate Ecology. The framework will serve as a foundation for building comprehensive monitoring statewide, offering insights into the long-term impacts of offshore wind development from local to regional scales. The framework will be released in Summer of 2026.

# 2025 Federal Impacts to California's Coast and Ocean

Since January 20, 2025, actions by the federal Administration significantly reduced the federal workforce, federal funding, and federal science programs, including coastal and ocean research, monitoring, and management programs in California. At the June 2025 Council meeting, OPC staff presented an **overview of expected impacts** of federal actions on California's coast and ocean programs and partnerships, including (1) reductions to the federal workforce, (2) federal funding delays and proposed cuts, and (3) compromised federal services and partnerships.

Additional actions are summarized below.

**Ongoing Survey: Federal Impacts to California's Coast and Ocean Programs.** To further identify and understand the impacts to federally-funded coast and ocean programs in California, OPC released a **Tracking the Impacts of Federal Actions on California's Coast and Ocean Survey** in September 2025. This survey will remain open and allow programs and projects to share information on a rolling basis, in order for OPC to understand the ongoing impact to jointly funded state programs and projects, and to identify critical environmental data and information gaps.

As of late 2025, survey responses from 25 entities ranging from local governments, academic research institutions, national laboratories, and federal agencies, indicated over \$450 million federal funds have been delayed, reduced, or eliminated for programs supporting California's coast and ocean. The top three most reported impacts included (1) delays or elimination of federal funding, (2) uncertainty driving programmatic pause, and (3) federal workforce reductions. Implications from these federal impacts include loss of personnel, student fellowships, and data through key information distribution programs, as well as paused or eliminated research projects and monitoring operations.

Of the impacts reported, over half (56%) were to programs or projects intended to benefit priority populations, including California Native American tribes or disadvantaged communities.

**Inclusion of California Coast in Federal Offshore Oil Drilling Plan.** On November 20, 2025, the Bureau of Ocean Energy Management released its **11th National Outer Continental Shelf Oil and Gas Leasing Program**, which proposes **34 potential lease sales** in federal waters. This includes six lease areas that stretch across the entire California coast, in addition to areas off the coast of Alaska and the Gulf.

Governor Gavin Newsom issued an **immediate response** to the proposal to open California’s coast to offshore oil drilling, voicing his strong opposition and committing to using “every tool at our disposal to protect our coastline.” Secretary Crowfoot also joined a **press conference** with Congressman Jared Huffman, Senator Alex Padilla and other Congressional leaders to amplify California’s opposition to this harmful plan that threatens California’s economy, environment and coastal communities. The release of this Leasing Program initiated a 60-day public comment period; CNRA and OPC submitted joint comments on behalf the State of California in coordination with the Coastal Commission, California Department of Fish and Wildlife, State Lands Commission and the Department of Conservation.



# OPC Science Advisor

In 2025, as OPC Science Advisor, the **Ocean Science Trust (OST)** convened key technical experts, convened workshops, and prepared recommendations to advance the scientific understanding of several ocean and coastal issues in California. Together, these activities inform and ensure that OPC's policy decisions are aligned with best available science.

## Accomplishments & Ongoing Efforts

### 2026 California Coast & Ocean Report

Through 2023 and 2024, OST convened the OPC SAT to provide scientific advice for developing science-based indicators to form the basis of the **2026 California Coast and Ocean Report**. In February 2024, an **initial list of indicators** was developed by the OPC Science Advisory Team. This initial list was refined through thoughtful and iterative dialogue with partners focused on relevance, data availability, and OPC priorities, and **presented** to the Council in March 2025.

OPC and OST worked in partnership throughout the year to convene scientific experts to continue this work and develop the 2026 California Coast and Ocean Report. The Report is intended to serve as a tool to inform the public and decision-makers about the status of ocean health and to highlight areas where the state can focus solutions, while a secondary report led by OST with the contributions by over 100 scientists and subject matter experts provide the scientific underpinning to the Report. The final Report will be presented to the Council in 2026.

### Coastal and Marine Restoration Guidance

In response to high priority science needs identified by OPC and partner agencies to advance effective and meaningful coastal and marine restoration amidst a changing climate, OST convened a technical working group to develop a report as a scientific resource for state agencies, restoration practitioners, and researchers as they undertake restoration and mitigation projects, identify research priorities, inform effective restoration location and design, monitoring considerations, and

overall statewide strategies for successful coastal and marine restoration and mitigation in California. The final report will be presented at the March 2026 Council meeting.

## Integration of Social Science into MPA Monitoring

To date, monitoring and evaluation of California’s MPA network has focused primarily on the network’s ecological performance than on “human dimensions” – a term used for how individuals and communities interact with, affect, and are affected by the MPA network. To address this gap and implement relevant recommendations outlined in the 2023 MPA Decadal Management Review, OST convened a working group will develop scientific guidance for monitoring socioeconomic outcomes of MPAs, including the development of key research and monitoring priorities, indicators, and methods. The final report will be presented at the March 2026 Council meeting.

## Microplastics Sector-Specific Workshops: Vehicle Tires

In March 2025, OST partnered with OPC to host a virtual vehicle tire wear workshop focused on informing innovation in tire materials, design, and on-vehicle tire wear collection devices that could reduce pollution. The [tire workshop report](#) summarizes outcomes and recommendations to scale solutions, alternative design, and research to reduce plastic pollution from vehicle tire wear. Additional workshops to reduce plastic use and related pollution from fisheries and aquaculture, as identified in the Statewide Microplastics Strategy, are anticipated to be held in 2026.



# OPC Summer Internship Program

In summer 2025, OPC hosted a cohort of five undergraduate interns who helped advance priorities in OPC’s Strategic Plan to Protect California’s Coast and Ocean while gaining meaningful professional experience within state government.

**Anne Larson** (Senior, Stanford University studying Human Biology, concentration in Environmental Science, Policy, and Oceanography and minor in Science Communication) joined OPC through a merit-based award from the Woods Institute, Environment and Policy Internships (EPIC) program at Stanford University, the eighth year of an ongoing partnership between OPC and Stanford.



Four students were selected for the fifth year of OPC’s ten-week paid summer internship program, which is focused on providing undergraduate college students with the opportunity to build a foundational background, professional experience, and robust overview of California’s coastal and ocean science, policy, and management work.



**Paige Thionnet**

Senior, University of California, Berkeley, studying Environmental Sciences, with a minor in Marine Science



**Jacob Wagner**

Senior, University of California, Santa Barbara, studying Environmental Studies, with a minor in anthropology



**Kiani Baetsle**

Senior, University of California, Berkeley,  
studying Conservation and Resource  
Studies, with a minor in Geospatial  
Information Science and Technology



**Kate Robinson**

Junior, University of California, Los Angeles,  
studying Environmental Science with  
a concentration in Atmospheric and  
Oceanic Sciences

During their internship, each student worked closely with staff mentors' projects and programs ranging from advancing California's Marine Protected Areas Network to help restoration to sea level rise planning and adaptation. Each student had the opportunity to tailor the internship based on their interests, including supporting interagency meetings, engaging with external partners, and incorporating equity and community considerations into OPC projects and programs. While the goal of OPC's summer internships is to provide students with an opportunity to increase their skills, knowledge, and exposure to ocean and coastal conservation in California, the benefit OPC has received from their effort is significant. We look forward to seeing what the future holds for these dynamic and dedicated students who will surely bring positive change to the future of ocean conservation.