



# OCEAN PROTECTION COUNCIL

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## Informational Item

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Item 4

## Annual State of the Coast and Ocean Report

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### Executive Summary:

In the [Strategic Plan to Protect California's Coast and Ocean](#), OPC committed to reporting annually on implementation of our strategic priorities as well as an overview of critical issues impacting marine and coastal biodiversity in California. The 2022 Annual Coast and Ocean Report (Exhibit A) includes both preliminary indicators for ocean health and a retrospective of OPC accomplishments towards achieving Strategic Plan goals. Indicators were chosen based on data availability and the ability to leverage other efforts. Indicator development was supported by OPC staff, [2022 Summer Interns](#), and a partnership with the [West Coast Ocean Alliance](#) (WCOA). WCOA is also pursuing the development of indicators to track and report on the health of the coast and ocean, but at a regional scale across the West Coast. OPC intends to continue its partnership with WCOA to ensure continued alignment between the efforts. The selected indicators presented in the 2022 Report represent a critical first step to understand important status and trends; however, they do not reflect final indicator development or selection for the purposes of the State of the Coast and Oceans Report Card due in 2025. Future Annual Coast and Ocean Reports will build out the number and methodology of indicators with the aim of completing a comprehensive, scientific indicator-based approach to grading ocean health indicators for the Report Card.

### Project Summary:

#### Background:

OPC's [2021 Annual Coast and Ocean Report](#) focused mainly on a retrospective of activities and accomplishments that advanced priorities in the Strategic Plan. This year's report builds on that model by also providing an initial snapshot of ocean health through the inclusion of indicators that reflect critical ocean and coast

issues. Development of indicators requires high-quality monitoring data that is both spatially and temporally robust. A time-series of 10-20 years is typically required to be able to statistically assess a trend. California is fortunate to have many long-term monitoring efforts, however these efforts might not be spatially designed to summarize trends at a regional or statewide scale. Developing scientifically sound indicators that can be assessed statewide and on an annual basis can therefore be a challenging effort.

Some long-term monitoring efforts in California are currently reporting on status and trends. The National Oceanic and Atmospheric Administration (NOAA)'s California Current Integrated Ecosystem Assessment produces an annual [Ecosystem Status Report](#) that covers the waters and climate offshore of California, Oregon, and Washington. This report has been in development for over a decade and aimed at a scientifically literate audience. Similarly, the State of the California Current Ecosystem Report published in *Frontiers in Marine Science* ([2021 publication](#)) is aimed at the scientific community. Other regional efforts such as the NOAA National Marine Sanctuaries (NMS) Condition Reports are more public friendly, but are limited to the regional boundaries and priorities of a Sanctuary (e.g., [Channel Islands NMS](#), [Monterey Bay](#), [Gulf of the Farallones](#), [Cordell Bank](#)). Many other more local or topical monitoring and reporting efforts are active in California, but often require working with individual scientists to access and analyze the data appropriately.

The California Office of Environmental Health Hazard Assessment (OEHHA) recently published the [2022 Report: Indicators of Climate Change in California \(Fourth Edition\)](#). This report documents observed changes in the state's climate, and its impacts in the state using 41 indicators. Indicators rely on available data, trends, and narrative explanations. Indicators are not intended for scoring and therefore do not need to be spatially or temporally comprehensive. When possible, OPC aligned indicators with the OEHHA 2022 Report, but will likely diverge as indicator methodology progresses to scoring.

### **Project Summary:**

The goal of the 2022 Annual Coast and Ocean Report (Report) is to provide information the public and the Council on critical issues facing California's coast and ocean, as well as a transparent accounting of OPC progress towards achieving goals in the Strategic Plan. The Report provides preliminary indicator development for nine indicators across the four OPC Strategic Plan Goals. The indicators included are: Goal 1 (Sea Level Rise, Sea Level Rise Planning, Ocean

Acidification, Water Recycling); Goal 2 (Beach Water Quality); Goal 3 (Kelp, Marine Mammals, Harmful Algal Blooms); and Goal 4 (Fisheries Landings). OPC's accomplishments towards achieving strategic plan objectives and targets are summarized at the end of each Goal section.

Indicators were chosen based on data availability and the ability to leverage other efforts; they do not reflect final indicator development or selection. Indicator development was supported by OPC staff, [2022 Summer Interns](#), and a partnership with the West Coast Ocean Alliance (WCOA). Indicators are represented by data and trends, a narrative, and anticipated next steps for development and/or improvement. Methodology for scoring against a particular threshold was not included, but is planned for the 2025 Report Card.

2022 OPC accomplishments were focused on efforts that completed or had significant findings in 2022, although ongoing efforts were highlighted when appropriate. Also included in the Report is an update on the OPC Science Advisory Team (OPC SAT) and partnership with the Ocean Science Trust, 2022 Summer Interns, and a Look Ahead to 2023. Some of the accomplishments that were highlighted include:

- **Sea-level Rise Action Plan:** In August 2022, the Ocean Protection Council publicly released the [State Agency Sea-Level Rise Action Plan for California](#) (Action Plan). The Action Plan is a first-of-its-kind effort to outline a roadmap toward coastal resiliency for the state of California with 80 agency-specific actions that are tied to outcomes and deadlines.
- **Tribal Marine Stewards Network:** In 2020, OPC invested \$1,000,000 to establish the [Tribal Marine Stewards Network](#) (TMSN) pilot program. Four partner tribes participated in the pilot: Tolowa Dee-ni' Nation, Resighini Rancheria, Kashia Band of Pomo Indians, and the Amah Mutsun Tribal Band. In 2022, OPC invested an additional \$3.6 million to continue and expand the TMSN's monitoring, outreach, and organizational development work, and to welcome a fifth tribe, the Santa Ynez Band of Chumash Indians, into the Network.
- **Equity Plan:** In October 2022, the Council approved adoption of its first-ever [Equity Plan](#). Through a collaborative partnership, OPC, and the Better World Group, developed the plan with guidance from an [Environmental Justice Advisory Group](#), and with extensive feedback from state agency partners and the public.

- **Kelp monitoring:** In recent years, California's marine biodiversity and coastal communities have been devastated by climate-driven declines in kelp, especially on the north coast. In response, OPC has invested heavily in pilot research and restoration projects to monitor kelp forest health, improve understanding of kelp loss and resilience, and test kelp restoration methods
- **Microplastics Strategy:** On February 2022, OPC adopted a first-of-its-kind [Statewide Microplastics Strategy](#) that recommends early actions and research priorities to reduce microplastic pollution in California's marine environment. The Statewide Microplastics Strategy sets a multi-year roadmap for California to take a national and global leadership role in managing microplastics pollution.

### **Equity and Environmental Justice Considerations:**

OPC highlights its equity accomplishments in 2022 in the report, which included the adoption of its inaugural Equity Plan, \$3.6 million to fund the next three years of the Tribal Marine Stewards Network and celebrating the Wiyot Tribe's purchase of a 46-acre coastal property within their ancestral territory funded through a coastal environmental justice solicitation using OPC's Proposition 1 funds.

### **Future Work on Indicator Development:**

OPC anticipates continued work on indicator development over the next three years to support a Report Card by 2025. To support this work, OPC will continue to partner with WCOA to ensure continued alignment and leverage resources. The OPC SAT will also be engaged, particularly to help build out a comprehensive list of indicators. Stakeholder and community engagement will also be needed, particularly related to Goal 2 (Equity) indicators. OPC is committed to integrating equity considerations throughout the Annual Coast and Ocean Report for the upcoming year in alignment with OPC's Strategic Plan objectives 2.1 and 2.2 to enhance engagement with Tribes and underserved communities, strategic priorities in OPC's Equity Plan, and extensive feedback from the OPC SAT.

So far, OPC has not made any investments to support future development of Annual Reports or indicators; however, investments to support indicator data and trend analysis will likely be needed in future years. The importance of high-quality monitoring data is also critical to indicator development and annual reporting. OPC anticipates this effort to reveal monitoring data gaps and priorities for future investments.