



Informational Item

March 3, 2025

Item 4

Information Item:
2024 Annual Report & California Coast and Ocean Report Card

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Location: Statewide

Strategic Plan Goals and Objectives: Target 3.6.1: Create an annual California State of the Coast and Ocean Report starting in 2021 (highlighting Strategic Plan implementation progress and critical issues) and a Report Card by 2025 (utilizing a scientific, indicator-based approach to grading the State of California’s Coast and Ocean).

Exhibits:

Exhibit A: 2024 OPC Annual Report

Exhibit B: 2025 Coast and Ocean Report Card Update

Exhibit C: Draft Kelp and Harmful Algal Bloom Indicators

Executive Summary:

In the [Strategic Plan to Protect California’s Coast and Ocean](#), OPC committed to reporting annually on the implementation of OPC’s strategic priorities, as well as an overview of critical issues impacting California’s coast and ocean. The 2024 OPC Annual Report includes a retrospective of OPC accomplishments toward achieving Strategic Plan goals (Exhibit A), an update on development of the 2025 Coast and Ocean Report Card (2025 Report Card Update; Exhibit B) as well as two draft indicators (Draft Indicators; Exhibit C). OPC [approved funding](#) in December 2023 to the Ocean Science Trust (OST) to lead development of the 2025 Coast and Ocean Report Card (2025 Report Card), in 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.

The 2025 Report Card Update and Draft Indicators build on previous work by OPC staff and summer interns, consultation with the OPC Science Advisory Team, and partnership with WCOA. The 2025 Report Card Update and Draft Indicators presented in this item provide an opportunity for review and feedback on the list of proposed indicators, the process for development, as well as the design concepts before the final 2025 Report Card is developed and released.

Project Summary:

Background:

OPC's [2022](#) and [2023](#) Annual Coast and Ocean Reports were foundational first steps in identifying indicators, as well as providing a retrospective of activities and accomplishments made to advance the priorities in the OPC Strategic Plan. This year's report separates OPC's retrospective of activities and accomplishments from an assessment of the health of California's coast and ocean using science-based indicators for the purpose of developing the final 2025 Report Card. Recognizing that a dedicated effort was needed to deliver a 2025 Report Card, OPC [approved funding](#) in December 2023 to OST to lead development of the 2025 Coast and Ocean Report Card, in partnership with WCOA.

Existing long-term monitoring efforts in California currently report 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 is aimed at a scientifically literate audience. Other regional efforts such as the NOAA National Marine Sanctuaries Condition Reports are more public friendly, but are limited to the regional boundaries and priorities of a Sanctuary (e.g., [Channel Islands](#), [Monterey Bay](#), [Gulf of the Farallones](#), [Cordell Bank](#)). Many other more local or topical monitoring and reporting efforts are active and ongoing 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) additionally published the [2022 Report: Indicators of Climate Change in California \(Fourth Edition\)](#) and is expected to publish the Fifth Edition by 2027. This report documents observed changes in the state's climate over a course of five years, and climate impacts in the state using 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 indicator selection with the OEHHA 2022 Report, however the data used will diverge as methodology progresses to scoring in the forthcoming 2025 Report Card.

Project Summary:

The 2025 Report Card Update provides the proposed list of indicators, the process for development, as well as the design concepts for the final 2025 Report Card. Selection of indicators considered the availability of high-quality monitoring (or modeling) 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. The proposed indicators for the final 2025 Report Card include:

1. Kelp
2. Mammals
3. Birds
4. Fish
5. Fisheries
6. Beaches
7. Coastal Access
8. Sea Level Rise Planning
9. Beach Water Quality
10. Harmful Algal Blooms (HABs)
11. Ocean Acidification
12. Warming
13. Coastal Flooding

Two additional topics, Coastal Economy and Equity, will be evaluated and incorporated across indicators, as appropriate, but not scored as standalone indicators.

This list was developed through an iterative process of expert input, public and tribal input, and discussions among OPC and OST staff based on what is relevant, feasible given available data, and meaningful to the public and to decision-makers. This list does not represent a comprehensive or ideal list of indicators, but rather what is possible with available data. This list evolved from an initial list of 42 indicators suggested by the OPC Science Advisory Team.

Only the Kelp and HABs indicators have finalized methodologies and scores (Exhibit C) and are shown in their designed two-page versions. The HABs indicator is shown for the entire West Coast, as developed by WCOA, but will be further downscaled for California. All indicators will be designed in a consistent two-page version. The remaining 11 indicators are in various stages of development, with overviews of the data and development process provided in Exhibit B, Appendix A. A first draft design concept for the 2025 Report Card is also provided within Exhibit B.

OPC 2024 Progress and Accomplishments. OPC accomplishments include efforts that were completed or had significant findings in 2024, with ongoing efforts and progress made highlighted

when appropriate. Also included in the 2024 OPC Annual Report is an update on the ongoing partnership with the Ocean Science Trust as OPC Science Advisor and the 2024 Summer Internship Program. Key accomplishments that were highlighted include:

- **Updated State of California Sea Level Rise Guidance:** To support sea level rise preparedness in California, OPC, in partnership with the Ocean Science Trust and an interdisciplinary Sea Level Rise Science Task Force, developed and adopted the [Sea Level Rise Guidance: 2024 Science and Policy Update](#) (Guidance) with the best available science and guidance for planning and decision-making. This Guidance is updated approximately every five years to help state, tribal, local, and regional jurisdictions integrate this science into coastal adaptation projects, resilience planning, and investments.
- **SB 1 Sea Level Rise Adaptation Planning Grant Program and Launch of Technical Assistance:** Throughout 2024, the [Senate Bill 1 Sea Level Rise Adaptation Planning Grant Program](#) provided local assistance for sea level rise adaptation planning and implementation projects through 15 local projects across California – from Del Norte and Humboldt Counties to Los Angeles County – amounting to \$14,655,287. As a complementary effort, OPC launched the Senate Bill 1 Technical Assistance Program (SB 1 TA Program) in March 2024, in partnership with Coastal Quest. The SB 1 TA Program supports eligible local, regional, and tribal governments in preparing applications for the SB 1 Grant Program.
- **Tribal Small Grants Program:** To support implementation of OPC’s [Tribal Engagement Strategy](#), OPC awarded up to \$500,000 to Kai Poma, a tribal non-profit representing 3 tribes, and up to \$500,000 to the ytt Northern Chumash Nonprofit representing the yak tit’yu tit’yu yak tiłhini (ytt) Northern Chumash Tribe in support of [Tribal Nature-Based Solutions](#) projects on California’s coast.
- **Environmental Justice Advisory Board:** OPC partnered with [Better World Group](#) to convene the [Environmental Justice Advisory Board for California’s Coast and Ocean](#) in 2024 that can help provide guidance and advice to better address the ocean and coastal needs of California communities. The recruitment, including the call for application for the inaugural Board launched in February 2024, resulting in [seven community leaders](#) representing California’s diverse regions and communities.
- **Conserving 30% of Coastal Waters by 2030 (30x30):** OPC [leads the state’s effort](#) to achieve 30x30 in coastal waters. The [Draft Decision-Making Framework for Coastal Waters](#), released by OPC in June 2024, advances the state’s commitment to conserve 30% of California’s coastal waters by 2030. This framework translates policy objectives (protecting biodiversity, expanding access to nature, and building climate resilience) into objective, transparent, science-based criteria. The final 30x30 Decision-Making Framework for Coastal Waters is anticipated to be presented for Council consideration and approval in 2025

- **Offshore Wind Environmental Monitoring Guidance:** OPC has continued to advance development of [comprehensive environmental monitoring guidance for offshore wind](#), in partnership with the California Marine Sanctuary Foundation. Five working groups of technical experts were convened and met regularly throughout 2024 to support the project. The guidance will serve as a foundational framework for building a comprehensive monitoring program statewide, offering insights into the long-term impacts of offshore wind development from local to regional scales. Interim guidance is expected to be released in Spring of 2025 and final guidance will be released in Spring of 2026.

Outside of OPC investments and projects, California also saw the new designation of the [Heritage National Marine Sanctuary](#), the first tribally-nominated Sanctuary and 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.

Equity and Environmental Justice Considerations:

OPC also highlights its accomplishments and progress made to advance equity in 2024, which included continued implementation of its inaugural Equity Plan, such as \$1 million of funding to 24 grantees as part of the pilot Environmental Justice Small Grants Program. These projects, ranging from environmental advocacy through art to ocean conservation and aquatic sports, are expected to have a significant positive impact on California’s environmental justice communities and advance equitable ocean and coastal conservation efforts. The high demand for this program, receiving \$4.6 million in funding requests, underscores the ongoing need for sustained investment in community-driven coastal and ocean initiatives.

Additionally, OPC partnered with Better World Group to convene the Environmental Justice Advisory Board in 2024. The Board’s overarching purpose is to provide equity and environmental justice expertise, advising the State of California on how to advance these priorities across its coastal and ocean programs and policies. In 2024, the Board contributed meaningful insights into multiple statewide initiatives, including the development of the California Ocean and Coast Report Card and strategies for enhancing community science engagement in Marine Protected Area management. These contributions help ensure that OPC’s efforts are informed by and proactively responsive to California’s diverse populations, including environmental justice and tribal communities.

As indicators continue to be developed and refined for inclusion in the 2025 Report Card, OPC is committed to integrating equity and human dimensions across indicators by identifying key assessment needs to meaningfully reflect the impacts of ocean and coastal conditions on

California’s communities. As part of this process, the EJ Advisory Board has been consulted on the development of indicators and will continue to be engaged in the 2025 Report Card process.