

CALIFORNIA
OCEAN
SCIENCE
TRUST

2020 ANNUAL REPORT

California Ocean
Science Trust

California Ocean Science Trust bridges the gap between cutting-edge scientific research and sound ocean management.

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Letter from the Executive Director

California has a long-standing and well-deserved reputation as a national and international leader in science-based policymaking. The coronavirus pandemic has shown us, among many lessons, the importance of trusting science and making decisions based on data.

That's the approach that was taken by visionary California leaders just over twenty years ago when California Ocean Science Trust (OST) was founded as a 501(c)(3) through state legislation, the California Ocean Resources Stewardship Act (CORSA), to act as an independent and trusted voice in service of California's goals of a healthy, resilient and productive ocean and coast.

Linking together marine scientists with the State of California, OST bridges the gap between cutting-edge scientific research and sound ocean management. We foster pragmatic and innovative approaches to the complicated challenges and choices facing California as climate impacts hit home – from sea level rise and its threats to our coastal communities to ocean acidification and the pressures it has placed on our iconic shellfish and fishing industries.

We have worked to tap the deep expertise in our state's best-in-class universities and scientific institutions, many of which are world-renowned for their marine science research, bringing their talents to bear on solving some of our biggest challenges, and protecting the state's jobs engines found in

its ocean and coastal economies. 2020 has tested all of us. The pandemic, the wildfires, the painful racial reckonings, all have tested our values. They have also affirmed the values held by OST's staff and board. California's people, our many vibrant cultures and communities, anchor all of OST's work.

The challenges ahead of us, with climate change and other influences redefining California's coastline and changing local marine ecosystems, are formidable and urgent. But, with the advances in science and communication, our team and our partners have the shared ability to rapidly infuse policymaking with scientific knowledge, to meet the urgency of this moment and contribute to a sustainable post-pandemic recovery that centers people and communities.

OST serves as an honest, politically neutral broker to help our state's lawmakers, agencies and resource managers to understand the complex environmental, economic and cultural implications of the legislative responses required of our current situation. We look forward to continuing to help the state anticipate and plan for – and even prevent – future impacts to our ocean and coastal communities with timely and credible science advice in the years ahead.

Together, we will protect what makes California special, by tapping into the exciting advancements in science right here in our own backyard.

Achievements and Highlights

I. Accelerating Ocean and Coastal Research

To manage the unprecedented changes facing our ocean, and rebuild from the impacts of the global pandemic, California must tap the best knowledge and expertise available. California Ocean Science Trust facilitates this broad reach by prioritizing partnerships with academia and ocean research institutions. In 2020, OST led in securing over \$1 million in federal and philanthropic ocean science research dollars for researchers at partner institutions including UC Davis and San Diego State University. New research projects will deliver policy-relevant science knowledge, and will keep California on the leading edge of wise stewardship of our coasts and oceans.

As 2020 has mercilessly shown us, the climate crisis has always been, and will be, felt most acutely in communities of color and other historically under-resourced communities. This reality asks us to reaffirm our commitment to actively undo racism in the ocean science community. OST staff are working to integrate equity in our work to strengthen the blue economy, from upcoming roundtables on improving diversity in STEM in the University of California (UC) and California State University (CSU) systems to development of new science guidance on embedding equity into climate adaptation strategies.

Understanding how fishing permit flexibility confers climate resilience

Climate change is stressing marine ecosystems and is expected to lead to more frequent emergency fisheries closures and unanticipated shifts in species distributions. In November 2020, we launched a new research project in partnership with economists at UC Davis to explore how flexible fishing permits could (or could not) be designed in a way that helps fishing communities in California adapt to climate change impacts. Over the coming two years we will connect state needs and stakeholder expertise to inform the research and ensure that the work is responsive to existing on-the-water realities within California. [Learn more here.](#)





Applying an equity lens to the future of ocean science research on the West Coast

In summer and fall 2020, OST partnered with COMPASS and West Coast scientists to reframe how the coastal and marine science community thinks about and conducts ocean climate research to create a more equitable world. From these long-overdue conversations, we have developed guidance to strengthen approaches to antiracist ocean science, equip scientists to work against structural racism within institutions, and advance research on just and equitable climate solutions for coastal communities.

Academic Roadshow goes virtual in 2020

California will be best positioned to develop effective, science-based ocean and coastal policy if the ties between our research community and state coastal and ocean funders and decision-makers are strong. The Academic Roadshow is an initiative in partnership with the Ocean Protection Council and California's Sea Grant Programs to visit science institution campuses across the state to learn about cutting-edge marine research. Early stops at the Coastal and Marine Sciences Institute, UC Davis and the Estuary and Ocean Science Center, San Francisco State University are already paying dividends with new science-policy collaborations tackling pressing challenges for California's oceans, like kelp forest restoration and sea-level rise. In March, at the start of the COVID outbreak, we pivoted and went virtual with 'stops' at UC Santa Barbara and thematic micro-symposia on equity and access, and community participation in science. Thank you to all our partners who helped to 'keep us on the road'. We look forward to reconnecting in person later in 2021. [Read more here.](#)



Deepening understanding of coastal community adaptive capacity to ocean acidification

Ocean acidification presents a direct threat to the livelihoods of California's iconic shellfish growers. OST supported a coalition of researchers to obtain \$1.04M over three years from the NOAA Ocean Acidification Program to understand social resilience success factors among coastal shellfish growers in the face of changing ocean conditions on the West Coast. OST will lead engagement and communication between scientists and relevant end-users of the information, including OPC, California Department of Fish and Wildlife (CDFW), Oregon Department of Fish and Wildlife (ODFW), as well as community representatives. [Learn more about this new research here.](#)





II. Delivering Science Advice to the State

OST is dedicated to the State government's vision for a healthy and productive ocean and coast and the role of science in accelerating progress towards these goals. With this unique perspective, we deliver pragmatic and actionable scientific advice to state agencies and departments. In 2020, and in the role of Ocean Protection Council (OPC) Science Advisor, OST delivered science syntheses, latest science publications and science recommendations on topics including equity in coastal access, blue carbon and nature-based infrastructure.

OST is also the Secretariat of the OPC Science Advisory Team - an interdisciplinary team of distinguished and independent scientists created by statute to support OPC in science-based actions and decisions. Serving in this role since 2008, OST has proven expertise in convening scientific expertise to deliver the pragmatic, actionable advice that supports policy action. In 2020, OST advanced three expert working groups on assessing the risk of microplastics, understanding if and how California's marine protected area (MPA) network confers climate resilience and developing a framework for decadal reviews of the statewide MPA network.

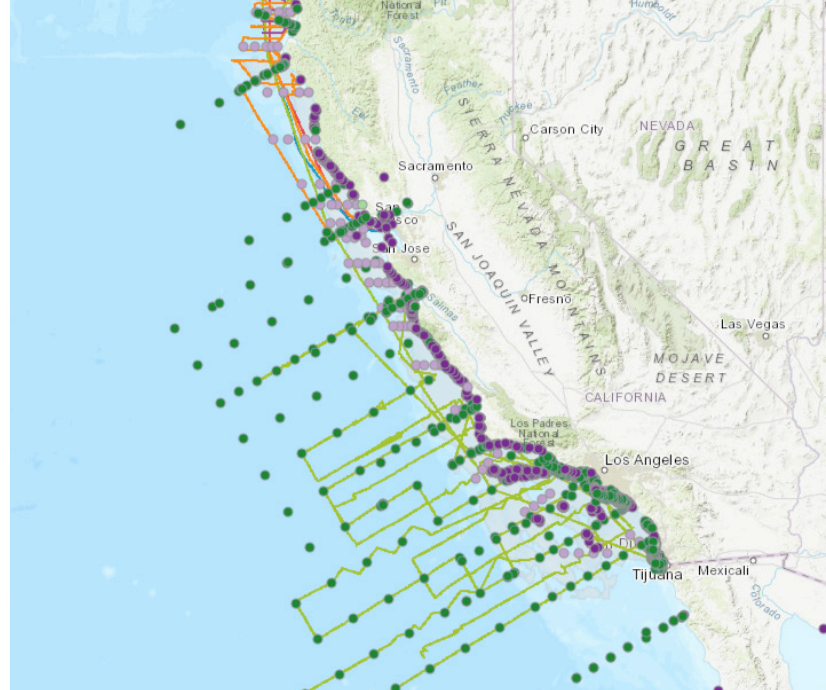


The ocean can help California recover

OST convened the OPC Science Advisory Team five months into the pandemic to develop a position statement to help guide policymakers as they map a more equitable economic recovery path, and factoring in that 2020 was also a year that included devastating climate change-fueled wildfires for California. Twenty-nine scientists used their collective voice in this statement to make the case that the ocean is both a climate solution and an economic driver for the state. The scientists advocated for ocean and coastal investments to simultaneously support climate change resilience and economic rebuilding, especially of California's most vulnerable communities. [Read the full statement here.](#)

OAH Science Task Force releases monitoring recommendations

California hosts a wealth of ocean monitoring programs, but poor coordination between chemical and biological monitoring efforts limits managers' understanding of how marine life is affected by changing exposure to ocean acidification and hypoxia (OAH). The California OAH Science Task Force, convened by OST, released their report "Enhancing California's Ocean Acidification and Hypoxia Monitoring Network" in June 2020. The primary recommendations to better connect chemical and biological monitoring, improve OAH models as decision-support tools and strengthen monitoring continuity are now shaping new research investments. [The report is available for download here.](#)



Fostering science-based and stakeholder engaged fisheries management

Effective fisheries management requires an underpinning of sound scientific data and analysis; stock assessment models are a core tool in the management process. On behalf of CDFW, OST convened an independent scientific peer review panel to evaluate the underlying scientific and technical merits of the draft California halibut stock assessment. Employing OST's proven coupled review and engagement process, we also provided venues for stakeholder input and perspectives. Indeed, the on-water knowledge of local fishermen was essential to frame relevant review questions and groundtruth model parameters. CDFW is now moving forward to develop a scientifically sound fishery management plan in collaboration with an engaged fishing community. [Learn more about the review process here.](#)

Supporting decision-making by the State Lands Commission

With national and international attention on the global, shared threat of nonindigenous invasive species, the California State Lands Commission sought to develop evidence-based policies that protect vital coastal resources while supporting the ocean-based economy. OST conducted an independent scientific peer review of the report "2018 Assessment of the Efficacy, Availability, and Environmental Impacts of Ballast Water Treatment Technologies for Use in California Waters," thereby building scientific rigor into decisions about ballast water treatment technologies. [Download a summary from the review here.](#)





Partners

California Council on Science and Technology (CCST)
 California Department of Fish and Wildlife
 California Fish and Game Commission
 California Ocean Protection Council
 California Sea Grant
 California State Lands Commission
 COMPASS
 CSU Council on Ocean Affairs, Science and Technology (COAST)
 Estuary and Ocean Science Center, SFSU
 Oregon State University
 San Diego State University
 University of California, Davis
 University of Southern California Sea Grant

\$1.17 M leveraged for partner institutions

including University of California, Davis and San Diego State University



Funders

Your support helps bring this work to life. As an independent nonprofit, OST is proud to serve as a cost-effective investment with accountability to the state and academia, and leverage public and private support to amplify outcomes.

California Ocean Protection Council
 The David and Lucile Packard Foundation
 Lenfest Ocean Program
 NOAA Ocean Acidification Program
 Resources Legacy Fund
 University of California, Davis

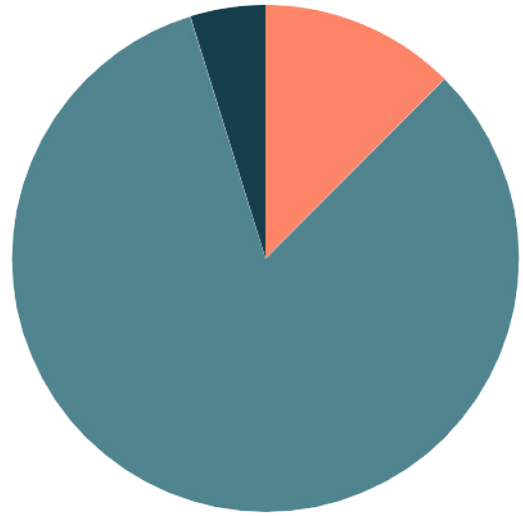
Financials

Revenues
\$1,375,973



- Program Grants \$177,735
- Government Contracts \$898,097
- Investment Income \$25,869
- Other \$274,272

Expenses
\$1,537,969



- Fundraising \$73,810
- Program Services & Grants \$1,272,251
- General Administration \$191,908

Operating reserve (less liabilities): \$1,638,697

Audited financials cover the fiscal year October 1, 2019 - September 30, 2020



Board

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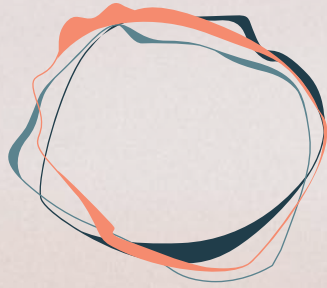
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Public Representative
Chief Conservation and Science Officer, Monterey Bay Aquarium

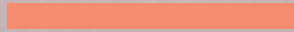
Dr. Phil Taylor

Treasurer, Ocean and Coastal Interests Group Representative
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