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California Provides Scientific Guidance for Restoring Coastal Areas Impacted by Power Plants

Advisory Team Releases Report on Once-Through Cooling Mitigation Policy

SACRAMENTO, Calif. – A new report by the Ocean Protection Council Science Advisory Team (OPC-SAT) provides scientific guidance on ways to restore coastal areas impacted by power plants using once-through cooling technology. The report, "[Ocean Restoration Methods: Scientific Guidance for Once-Through Cooling Mitigation Policy](#)," continues California's significant investment in 124 marine protected areas (MPAs) to help safeguard the long-term health of California's marine life.

Once-through cooling technology pulls water from the ocean to cool power plants. Marine animals, seaweeds, and billions of eggs and larvae of fish and invertebrates are taken in with the seawater and killed as they are subjected to thermal, physical, and/or chemical stresses. Larger organisms may also be pinned against seawater intake screens, causing injury or death. These impacts contribute to the decline of fisheries and the degradation of marine habitats near power plants using once-through cooling.

To address these damaging impacts, the State Water Resources Control Board established a policy in 2010 requiring power plants to stop using once-through cooling technology. Until power plants transition to less harmful cooling systems, the policy requires them to make mitigation payments to the California Coastal Conservancy and the Ocean Protection Council to support projects that will offset negative ecological effects and increase marine life associated with MPAs in the geographic area of the facilities.

A Working Group of the OPC-SAT, convened by the [Ocean Science Trust](#), applied the best science available to help identify projects that would meet the requirements of the Once-Through Cooling Policy to bolster marine life associated with California's MPA network. Their report determined that due to oceanographic currents connecting locations both inside and outside of MPAs, harmful effects of once-through cooling could extend hundreds of kilometers from a power plant's intake pipe. Given the geographic extent of power plants still using once-

through cooling, the findings of this report define the areas impacted as the entirety of State waters (3 nautical miles from the coastline) from San Diego to Big Sur, including the waters around the Channel Islands.

The Ocean Protection Council's [Once-Through Cooling Interim Mitigation Program](#) directs mitigation payment investment through four critical components: 1) enforcement of MPA rules and regulations statewide; 2) outreach and education to improve compliance; 3) research to understand how existing MPAs may be mitigating for OTC impacts; and 4) restoration that increases marine life in the geographic regions of the facilities.

About the California Ocean Protection Council:

The Ocean Protection Council is a state agency whose mission is to ensure that California maintains healthy, resilient, and productive ocean and coastal ecosystems for the benefit of current and future generations. The Council was created pursuant to the California Ocean Protection Act, which was signed into law in 2004 by Governor Arnold Schwarzenegger. For more information, visit www.opc.ca.gov.

About the California Ocean Science Trust:

California Ocean Science Trust (OST) is a non-profit organization whose mission is to advance a constructive role for science in decision-making by promoting collaboration and mutual understanding among scientists, citizens, managers, and policymakers working toward sustained, healthy, and productive coastal and ocean ecosystems. A unique asset to the State of California, OST was established under the California Ocean Resources Stewardship Act (CORSA) of 2000. For more information, visit www.oceansciencetrust.org.

About the Working Group:

The experts who synthesized the latest science as a Working Group of the Ocean Protection Council's Science Advisory Team, convened by the California Ocean Science Trust, are: Richard Ambrose (Co-Chair) OPC-SAT, UCLA; Peter Raimondi (Co-Chair), UC Santa Cruz; Adrian Stier, UC Santa Cruz; Christopher Edwards, UC Santa Cruz; Jennifer Caselle, UC Santa Barbara; Marissa Basket, UC Davis; Kerry Nickols, CSU Northridge; Mark Carr, OPC-SAT, UC Santa Cruz; Nathalie Reyns, University of San Diego; Sean Anderson, CSU Channel Islands. For more about the working group, visit <https://bit.ly/2ICQVyA>.