

# WATER QUALITY SUCCESS STORIES FROM CALIFORNIA'S OCEAN LANDMARKS

## INVESTING IN MULTI-BENEFIT SOLUTIONS

Through the strategic investment of state bond funds, California is improving water quality in the state's most ecologically vital places - with significant returns for ocean recreation and tourism. Projects from across the state provide examples of how future Proposition 84 and Proposition 1 investments can be leveraged to improve water quality and foster cleaner beaches, oceans, and thriving coastal ecosystems statewide.

## HISTORY OF OCEAN LEADERSHIP

California's long history of ocean leadership

In 2013, California established the nation's first state-wide network of marine protected areas (MPAs), designating 124 special areas along the coast to conserve sea life and habitats, and enhance ocean recreation and science. MPAs include many of the state's most popular coastal destinations, such as Point Reyes, Point Lobos, Crystal Cove and La Jolla.

They encompass tidepools, rocky reefs, kelp forests, submarine canyons and eelgrass beds that serve as feeding and breeding grounds for fish, shellfish, sea birds, and marine mammals. California has also identified 34 Areas of Special Biological Significance (ASBS), specifically to protect water quality in some of the state's most unique and sensitive ocean environments. MPAs and ASBSs also provide research and recreation opportunities, and help safeguard the many jobs and businesses that rely on a healthy ocean.

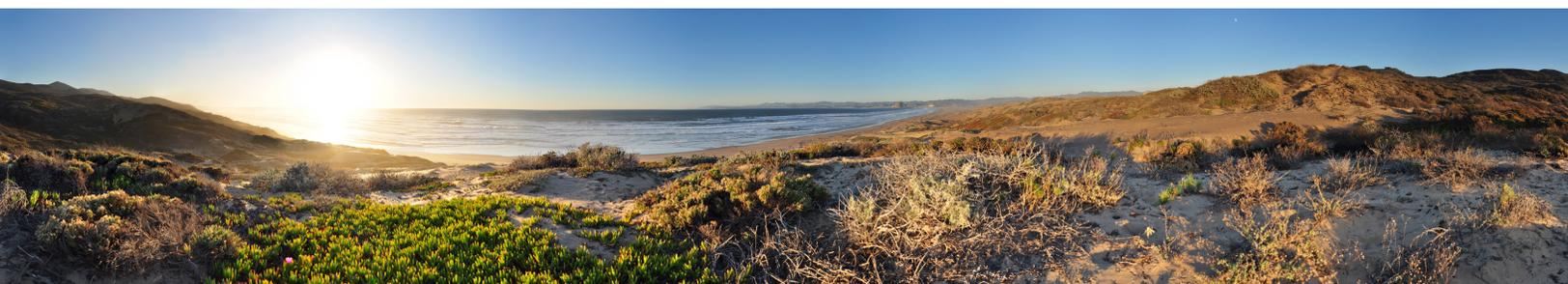


*Improving water quality in California's special ocean places is a smart investment that pays dividends for coastal communities. Special places like Carmel Bay and Fitzgerald Marine Reserve help power a \$39 billion ocean economy and 472,000 jobs. The state's oldest marine park, Point Lobos, draws over 40,000 visitors each year.*



## ECOSYSTEM AND ECONOMIC BENEFITS

California has a track record of successful water quality restoration and protection projects in MPAs and ASBS. By investing Proposition 84 funds in best management practices like grassy swales, porous pavement, catch basins and storm filters, the state has significantly reduced pollution entering these sensitive areas. The result - a cleaner ocean - is good news for wildlife, fishermen, coastal visitors, and local businesses from surf shops to whale watching boats. Scientific monitoring is already underway in MPAs and ASBSs to ensure a reliable benchmark to measure water quality improvements.



# IN FOCUS: WATER QUALITY PROJECTS THAT WORK

## JAMES FITZGERALD SWALE AND MEDIA FILTER

Montara MPA at Fitzgerald Marine Reserve ASBS



Famed for its spectacular tidepools, Fitzgerald is the site of countless research projects and school field trips. It also serves as a research lab for four unique stormwater management practices: a vegetated swale, a grassy swale, a BioClean® flume filter, and a Stormwater Management StormFilter®. These projects not only improve water quality, but serve as demonstration projects for stormwater management.

## CARMEL BAY DIVERSION

Carmel Bay MPA at Carmel Bay ASBS



Carmel's scenery has inspired artists, poets and writers for more than a century. Today Carmel Bay draws SCUBA divers and ocean lovers from around the world to its sandy beaches and thriving kelp forests. The Carmel Bay Diversion Project is designed use gravity-fed diversions and regularly scheduled pump-outs to ensure the runoff from 23 different outfalls is kept out of the bay during peak tourist season.

## ZUMA BEACH SEPTIC REPLACEMENT

Point Dume MPA at Laguna Point to Latigo Point ASBS



The Zuma and Point Dume beaches are renowned for their surf breaks, but chronic water quality issues have plagued the area, making surfers sick and leading to beach closures. Los Angeles County's Zuma Beach Septic Replacement Project replaced 12 failing septic systems and leach fields, resulting in major reductions in fecal indicator bacteria. In 2013, there was not a single day where water quality posed a threat.

## IRVINE COAST INFILTRATION PROJECT

Crystal Cove MPA at Irvine Coast Marine Life Refuge ASBS



Orange County's Crystal Cove is as popular with visitors as it is vital for wildlife. The Irvine Coast Infiltration Project treats polluted stormwater runoff from a busy beach parking lot using a combination of porous pavement, biotreatment, and an infiltration gallery. The project prevents large amounts of pollutants, from leaking car oil to toxic metals, from contaminating the ocean every year.

## LA JOLLA DIVERSION AND ASBS PROTECTION IMPLEMENTATION PROGRAM

Matlahuayl MPA and La Jolla ASBS



Tidepoolers, divers, swimmers and kayakers flock to La Jolla year round. Visitors enjoy viewing leopard sharks, colorful Garibaldi, and playful sea lions. Two new projects have improved water quality at this popular spot: one captures and infiltrates stormwater runoff from a parking lot using porous pavement and an infiltration trench, the other diverts flows through a trash screen and into the sanitary sewer for treatment. The projects have removed nearly one million gallons of runoff.

*Based on the Southern California Coastal Water Research Project Proposition 84 Grant Evaluation Report: Assessing Pollutant Reductions to Areas of Biological Significance (March 2015).*

**CONTACT:** Sara Aminzadeh, Executive Director, California Coastkeeper Alliance, 415-794-8422

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## OPC Proposition 1 Funding Scoping

### I. Proactively Facilitate Integrated Projects and Funding Decisions with Other Agencies.

Proposition 1 provides funding across multiple agencies to support projects that have ocean and watershed protection and restoration as an eligible project type within their respective programs. It is important that there is a unified approach across these agencies in developing the evaluation criteria for project funding, as well as monitoring requirements, for such projects to ensure that projects funded across the various Proposition 1 programs meet the same level of accountability in providing public benefits.

**RECOMMENDATION:** OPC could facilitate inter-agency coordination by:

- Developing an integration panel with other agencies to coordinate funding decisions, establish shared or jointly funded efforts and facilitate joint investment in the best multi-benefit projects.
- Issuing joint proposal solicitations or develop a collective agreement on funding projects in specific geographic areas or watersheds or to prioritize certain types of projects.
- Developing a check box or field in the applications where applicants can indicate all applicable agencies bond funding to facilitate joint proposal consideration.

### II. Prioritize and Solicit Multi-Benefit Projects.

Even with a large amount of funding becoming available, California's ocean health needs far exceed available resources. Projects that achieve multiple benefits, such as endangered species protection, habitat restoration, climate change resiliency, land acquisition and preservation of open space, flood management, and water quality protection should be prioritized for Proposition 1 funding to achieve the best possible outcomes for water quality, ecosystems, and all Californians.

The development of high quality, multi-benefit projects is challenging and time-consuming due to the number of collaborators that should be involved in the integrated planning process. Furthermore, designing projects to advance measurable criteria, particularly ecological and social criteria linked with benefits to sensitive species and/or disadvantaged communities respectively, requires a greater investment in the planning process. Unlike water and flood management agencies that can fund planning processes to advance their objectives, disadvantaged communities, NGOs, and fishery agencies often lack funding to plan multi-benefit projects, resulting in projects that too often fail to benefit disadvantaged communities and sensitive species.

**RECOMMENDATION:** OPC should further prioritize and encourage multi-benefit projects by:

- Including multi-benefit criteria in the full Proposal's evaluation guidelines. One way to better achieve this is for the draft Guidelines to score the extent to which full Proposals provide "multiple benefits."
- Increasing the value of the "removes or mitigates multiple stressors from the ocean and near coastal environment" criterion in the full Proposal evaluation.
- Offering planning and technical assistance and separate planning grants to advance multi-benefit watershed and urban river enhancement projects that will provide benefits to disadvantaged communities.

### **III. Identify Project Types That Meet Priorities I and II Above.**

We urge OPC to identify and strategically focus on types of projects that facilitate inter-agency coordination and joint funding, achieve multiple benefits, have proven successful in previous public funding efforts, and reflect OPC priorities. These could include proposals that improve coastal water quality, improve bay and estuary climate change resiliency, restore coastal wetlands, or yield benefits for fish passage and flow. We've outlined four key types of projects below:

#### **1. Projects that Improve Water Quality in MPAs**

Agencies: OPC, SWRCB, DFW

Multiple benefits: water quality enhancement, restoration of beneficial uses, bolster MPAs

Proposition 1 funds can create multiplier effects by building upon and leveraging the already significant investments the state has made in marine managed areas, particularly in Areas of Special Biological Significance (ASBS) and Marine Protected Areas (MPAs).

SUPPORT: Allocation of bonus points for projects that advance the management of individual marine managed areas or the statewide protected area network.

#### **2. Habitat restoration projects that make bays, wetlands, and estuaries more resilient to sea level rise.**

Agencies: OPC, SWRCB, DFW, Coastal Conservancy

Multiple benefits: flood protection and mitigation, protect and restore ecosystems and species, bolster state MPA network through protection of nursery habitats, water quality enhancement, resiliency to sea level rise and other climate change impacts

SUPPORT: Prioritization of habitat restoration projects that provide multiple benefits, including benefitting disadvantaged communities.

#### **3. Coastal water quality and coastal erosion mitigation projects that target pollution hotspots that can exacerbate ocean acidification.**

Types of projects: implementing stormwater surge prevention and coastal buffer zones, maintaining intact wetlands and improving water treatment; addressing coastal erosion by reducing nutrient and sediment loading of water.

#### **4. Projects that benefit fish passage and flows**

Agencies: OPC, SWRCB, DFW, Coastal Conservancy

Multiple benefits: water quality enhancement, protect and restore ecosystems and species, bolster MPAs

A Coastal Conservancy study identified more than 13,000 potential barriers to fish passage in California's coastal watersheds. Improving connectivity within aquatic ecosystems requires barrier removal, including road and stream crossings, irrigation diversions, and dams. The OPC initiated work in fish passage barrier removal several years ago, but this effort has since been slowed. Further efforts could prove beneficial to advancing strategic barrier removals in threatened runs important to MPAs, and encourage natural sediment flow to beaches to reinforce coastal climate change resiliency.