

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

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

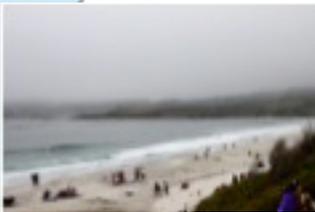
Montara MPA at Fitzgerald Marine Reserve ASBS



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).

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