



For Immediate Release

Contact:

Julie Du Brow, The Bay Foundation
310-922-1301
jdubrow@santamonicabay.org

Dennis Weber, California State Parks
Dennis.Weber@parks.ca.gov
916-651-8724

Comprehensive, Post-Restoration Monitoring Report of Malibu Lagoon Indicates Success Towards Project Goals

Former ‘Dead Zone’ is now a Healthier System with Increased Water Circulation and Oxygen, Bringing a Wetland Back to Life

Los Angeles, CA (June 10, 2015) – The Bay Foundation has just released the ["Malibu Lagoon Restoration and Enhancement Project Comprehensive Monitoring Report \(Year 2\)"](#), the first report to fully compare and evaluate pre-restoration conditions to two years of post-restoration conditions. The project has been watched carefully by many for its potential to be a test case for giving life back to a local wetland. (For a copy of the full report, please use: http://www.santamonicabay.org/wp-content/uploads/2015/06/Malibu-Lagoon_Comprehensive-Monitoring-Report_Yr2_FINAL_web.pdf)

Based on the first two years of a five-year monitoring program, the Malibu Lagoon Restoration Project shows that it is on track to meet or exceed the documented criteria for success. The Project’s core goals included improving the ecological health of the lagoon’s system by enhancing habitats for native wildlife, creating several acres of new wetlands, and increasing tidal flushing and water circulation to improve water quality and eliminate the “dead zones” and oxygen-deprived areas.

Prior to the restoration, the 31-acre Malibu Lagoon was on the U.S. Environmental Protection Agency list of impaired water bodies for over a decade due to excess nutrients and low oxygen levels. Without oxygen, aquatic life cannot breathe, so very little was able to live in some parts of the lagoon. Additionally, sediment slowly continued to deposit, choking out the remaining wetland habitats. The lagoon lies at the end of the Malibu Creek Watershed, the second largest watershed draining into Santa Monica Bay. It

receives year-round freshwater from sources upstream and is periodically open to the ocean via a temporary stream that cuts through the sandbar, breaching the estuary.

"This restoration project in the western portion of the lagoon reconfigured the channels and removed tons of contaminated debris and mud--all leading to much better circulation of water and levels of oxygen throughout the system, both when the lagoon is open to the ocean, or closed by the sand berm," states Dr. John Dorsey, Professor, Department of Civil Engineering and Environmental Science at Loyola Marymount University. "In just a relatively short time, we're seeing a healthier group of invertebrates, many needing good water quality to flourish, as well as a nursery habitat for juvenile fish. I expect plants and animals living in the channels, and along the banks, to become even more diverse as these habitats continue to mature."

The [Comprehensive Monitoring Report's](#) primary goal is to report the post-restoration conditions of the Project using hydrologic, chemical, and biological data. When applicable, it describes trends over time compared to pre-restoration data.

Several key components of the post-monitoring program that met/exceeded project success criteria include:

- Water quality was highly improved. Dissolved oxygen readings exceeded success criteria thresholds and were higher than pre-restoration conditions, which frequently dropped below healthy thresholds.
- Circulation throughout the lagoon—both wind-driven and tidal flushing—was improved in both open and closed berm conditions, as indicated by mixing and high levels of dissolved oxygen throughout the lagoon. This was especially noticeable in the back channels, which previously had very low dissolved oxygen and anoxic conditions due to limited or zero circulation.
- Based on the standardized, statewide California Rapid Assessment Method (CRAM), which measures the condition of wetlands, the lagoon's scores already exceeded pre-restoration conditions, and data indicated improving condition scores with each successive survey, especially for things like improved physical structure and hydrology.
- The pre-restoration benthic invertebrate community was limited to mostly pollution-tolerant organisms, while the post-restoration surveys have shown a more diverse and sensitive invertebrate community composed of an increased percentage of organisms that cannot exist in highly polluted conditions.
- The post-restoration fish community returned to the area, with the added function of serving as a nursery habitat exhibited by the abundance of captured larva and juveniles (e.g. staghorn sculpin, goby, and topsmelt). Fish are highly mobile, so each fish survey represents a snapshot in time that fluctuated across seasons and lagoon locations.

"Seeing the biological community and wildlife return and continuing to develop complexity over time is both rewarding and encouraging, and it shows that a science-based plan works," said Suzanne Goode, Senior Environmental Scientist for California State Parks and lead for the restoration effort for the department. "I'm truly proud of the success so far,

thankful to the supporters, and happy to see such a consistent flow of visitors to the lagoon."

The Malibu Lagoon Restoration and Enhancement Project was completed by California State Parks with project partners State Coastal Conservancy, Resource Conservation District of the Santa Monica Mountains, and The Bay Foundation. Monitoring included funding from Wildlife Conservation Board and the Los Angeles County Department of Parks and Recreation.

The restored Malibu Lagoon is the result of 20 years of discussion and 10 years of planning with more than 100 participant individual and group stakeholders in a public process that included the local community, environmental groups and state and national agencies. The stakeholders conceived the major elements of the plan including the new educational and access features, and provided direction to technical experts who did the detailed design.

"The early results from the monitoring describe a coastal lagoon in southern California returning to good health. I am deeply thankful to everyone whose efforts assisted in the restoration of this ecosystem," states Tom Ford, Executive Director of The Bay Foundation. "The monitoring of the lagoon will continue for another three years, and I'm looking forward to seeing those results; I hope they prove to be as positive as those describing the past two years following the restoration. The transformation of Malibu Lagoon will always remind me of how we can make life on this planet better for all of us, either via a cool new park design or by increased dissolved oxygen in newly created lagoon channels that makes space for more baby fish."

###

About The Bay Foundation (TBF)

The TBF is a 501(c) 3 non-profit environmental group founded in 1990 to restore and enhance the Santa Monica Bay (from the LA-Ventura county line to the Palos Verdes Peninsula) and local coastal waters. The Foundation is the non-profit partner of the Santa Monica Bay Restoration Commission, raising and expending funds for research, education, planning, cleanup efforts and other priorities identified in the Commission's Santa Monica Bay Restoration Plan. As advocates for the Bay, TBF works collaboratively with a broad group of stakeholders, including government agencies, industry, environmental groups, and scientists, to implement innovative policies and projects that clean up the waterways, create green spaces and natural habitats in the Los Angeles region. The TBF conducts research and mentors student intern and volunteers through its Center for Santa Monica Bay Studies at Loyola Marymount University.
<http://www.santamonicabay.org/>

About California State Parks

California State Parks manages 280 park units, which contain the finest and most diverse collection of natural, cultural, and recreational resources to be found within California. Responsible for almost one-third of California's scenic coastline, the California State Park system includes 280 parks, beaches, trails, wildlife areas, open spaces, off-highway vehicle areas, and historic sites. It consists of approximately 1.59 million acres, including over 339 miles of coastline, 974 miles of lake, reservoir and river frontage, approximately 15,000 campsites and alternative camping facilities, and 4,456 miles of non-motorized trails. For more information, visit www.parks.ca.gov.