

Q4 2017 Special Edition: Annual Report

SUMMARY OF ACCOMPLISHMENTS AND ONGOING PROJECTS OF SMBNEP

Wetlands, Rivers, and Streams



Malibu Lagoon, April 2017

Malibu Lagoon Post-Restoration Monitoring – This long-term comprehensive monitoring program evaluates the condition of the post-restoration Lagoon through biological, physical, and chemical surveys. In 2017, a four-year comprehensive monitoring report was completed and released in August, and surveys continued into the fifth year of monitoring. The Lagoon continues to have improved circulation, water quality, and overall condition. Public restoration events are held monthly to remove non-native, invasive vegetation. Ongoing. (SMBRA, TBF)

Community-Based Restoration at Ballona Wetlands – This project will restore approximately three acres of heavily degraded wetland habitats at the Ballona Wetlands Ecological Reserve through invasive vegetation removal over several years. In 2017, volunteers and members of the community continued removing invasive vegetation through community restoration events and produced a Year 1 Annual Report in July. Ongoing. (TBF)

Ballona Wetlands Restoration Project Draft EIS/R – This multi-year program informed a draft of the joint Environmental Impact Statement / Environmental Impact Report (Draft EIS/R) led by the California Department of Fish and Wildlife and the US Army Corps of Engineers. In 2017, the lead agencies released the Draft EIS/R in September and a public hearing was held in November. The lead agencies will compile public comments through 5 February 2018. Completed. (TBF)

Evaluating Regional Wetland Monitoring Programs – This program is working towards increasing our regional understanding of the condition of our coastal wetland systems, and applying that knowledge towards standardizing wetland monitoring across the state of California. In 2017, this program continued work on a site-intensive data translator and held workshops for vegetation, invertebrate, and water quality monitoring. Ongoing. (SMBRA, TBF)



Stone Canyon Creek volunteers, December 2017

Rindge Dam Removal Study – Draft Integrated Feasibility Report (IFR) with Environmental Impact Statement/ Environmental Impact Report was completed in January 2016. Public Comment period ended March 27, 2017. Document is currently undergoing peer review as well as review by US Army Corps of Engineers and California Dept. of Parks and Recreation. Ongoing. (SMBRC, TBF)

Stone Canyon Creek Restoration – This community stream habitat restoration and education program along a Ballona Creek

tributary is conducted in partnership with UCLA and adjacent elementary UCLA Lab School. In 2017, 11 community events were held, with more than 500 volunteers, and over 50 UCLA students enrolled in a Restoration Ecology course used the site as a living laboratory. Ongoing. (TBF)

Beaches, Dunes, and Bluffs

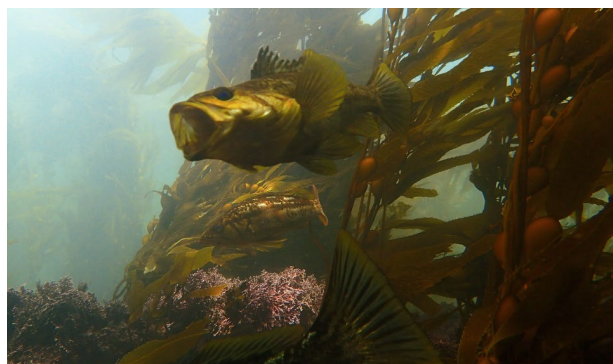
Santa Monica Beach Restoration Pilot Project – This pilot project is restoring approximately three acres of sandy coastal habitats to the beach in the City of Santa Monica. The project is reestablishing native vegetation to the beach in an effort to create a sustainable coastal strand and foredune habitat complex resilient to sea level rise. In 2017, native dune vegetation and sand hummocks began to establish, the project area provided habitat for rare species, ongoing monitoring informed climate change resiliency planning, and a Year 1 Annual Report was produced. Ongoing. (TBF)

Healthy Beaches Research – In partnership with Loyola Marymount University (LMU), this research project is conducting a site-suitability analysis to determine potential areas of beach restoration, evaluating factors such as recreational use, physical, and biological characteristics. The study will also take into consideration future sea level rise scenarios and increases in coastal storm impacts. In 2017, five research projects were conducted by nine LMU students. Ongoing. (TBF)

LAX Dunes Restoration Project – In partnership with Los Angeles World Airports and the Friends of LAX Dunes, conducts monthly volunteer restoration events at the LAX Dunes to remove invasive vegetation and teach the local community about the importance and resilience of coastal dune systems. In 2017, 16 community events were held and over 587 bags of invasive non-native vegetation were removed. Ongoing. (TBF)

Coastal Cleanup Day – TBF coordinates an international Coastal Cleanup Day (CCD) volunteer event. In 2017, TBF coordinated CCD at the LAX Dunes, in partnership with the Friends of LAX Dunes and Los Angeles World Airports. Nearly 50 volunteers removed approximately 550 lbs of invasive vegetation as part of a long-term habitat restoration project for the LAX Dunes. Completed. (TBF)

The Ocean



A kelp bass (Paralabrax clathratus) gaping its mouth in the surge off the Palos Verdes Peninsula.

Kelp Forest Restoration – This project aims to restore up to 150 acres of giant kelp forests. Commercial fishermen and TBF scientists monitor and restore these reefs as they are transformed from urchin barrens to kelp forests. 4.67 acres of kelp have been restored in 2017 contributing to a total of 43.27 acres since the project began in 2013. Results from 2017 describe increases in the abundance, biomass and diversity of macroalgae, invertebrates and fishes in the restored sites. In one site, kelp canopy increased by 250%. Ongoing. (TBF)

Socio-economic Research Related to Marine Spatial Planning – This aerial-survey based project maps the location, type, and activity of boats along the southern California coast from the U.S. Mexican Border to Point Conception, tracking boater responses to the establishment of the Marine Protected Area network. Eight survey flights were completed and in collaboration with Occidental College, a manuscript was submitted for peer review in 2017. Ongoing. (TBF)

MPA Outreach – TBF participates in the L.A. MPA Collaborative, comprised of NGOs and stakeholders throughout Los Angeles County and statewide. The collaboration develops and disseminates information about the status and management of the Marine Protected Area network in the region. Ongoing. (TBF)

Abalone Restoration Project – A multifaceted approach to research, and method development to restore populations of abalone to Santa Monica Bay and adjacent coastal waters. In 2017, quarterly monitoring of outplanted green abalone showed an increase in the number and density of green abalone in the outplant area. The abalone laboratory was completed in 2016 to serve as a center for research and conditioning of abalone to advance the recovery of these ecologically and economically important species. In 2017, funding and plans were developed to expand that lab, increasing its capacity to support abalone efforts throughout the state. This project is supported by NOAA, NMFS, SCMI, and Cal Poly Pomona. Ongoing. (TBF)

Palos Verdes Shelf Fish Contamination Education Collaborative – A collaborative group that aims to educate local fishermen and consumers about the health risks of contaminated seafood, in partnership with U.S. EPA, local agencies, and community based organizations. Ongoing. (SMBRC, TBF)

Underwater Exploration – In 2017, TBF launched an exploration program to utilize its remotely operated underwater vehicle, R2Deep2, to support ongoing conservation and restoration projects, and explore lesser known marine habitats in Santa Monica Bay. Ongoing. (TBF)

Climate Change

Climate Change Action Planning – Following the completion of the Climate Change Vulnerability Assessment in 2016, the climate change action plan identifies and evaluates actions to increase the adaptive capacity of goals and objectives in the Bay Restoration Plan (BRP). Results will be used to inform the BRP and Comprehensive Monitoring Plan (CMP) revision in 2018. Ongoing. (SMBRC, TBF)

Climate Change Adaptation – In partnership with USC Sea Grant, Los Angeles Regional Collaborative for Climate Action and Sustainability, and Heal the Bay this program assists coastal jurisdictions in developing strategies to adapt to climate change impacts, including sea level rise and increased storm activity. Initial 100-year coastal sea level rise and storm modeling results were completed and released on-line by USGS, and webinars were conducted to disseminate the modeling results. In 2017, TBF partnered with USGS to develop innovative visualization products, presenting sea level rise data as experiential information through the use of virtual reality environments. Ongoing. (SMBRC, TBF)

Rocky Intertidal Habitat Study – In 2017, TBF launched an effort to study the biological and physical effects of sea level rise on rocky intertidal habitats in Santa Monica Bay. Using the Point Fermin Rocky Intertidal as a preliminary study site, TBF and LMU interns collected high-resolution elevation and biological species data to begin modeling the effects of sea level rise to this unique Santa Monica Bay habitat. Ongoing. (TBF)

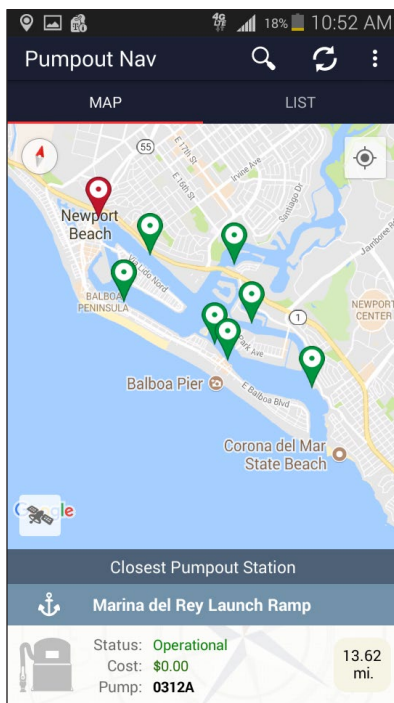
Ocean Acidification Sensors in Santa Monica Bay – An array of instruments that measure pH, dissolved oxygen, and pCO₂ have been deployed off the Palos Verdes Peninsula since the second half of 2016, by the Sanitation District of Los Angeles County. The data collected by this project will help us understand how ocean acidification and hypoxia are manifesting off our coast. This project is funded by the U.S. EPA, supported by LA County Sanitation and SCCWRP, and will contribute to regional efforts along California and the West Coast in the coming years. Ongoing. (SMBRC, TBF)

Kelp Forest Hydrodynamics Study – This cooperative project is designed to inform how kelp forests influence current patterns, wave velocity, and sediment transport off the coast of the Palos Verdes Peninsula. This project is conducted in partnership with the University of California Davis, and Cal State Northridge, and funded by the California State Coastal Conservancy and USC Sea Grant. TBF's kelp

forest restoration sites offer the perfect study area, allowing instruments to measure physical, chemical, and biological data before the presence of kelp in an urchin barren, and after the presence of kelp when restoration work is complete. Instruments will be deployed into early 2018 as kelp recovers and grows into dense, healthy kelp forests. Ongoing. (TBF)

Our Communities

Proposition 84 Grant Program – The SMBRC was originally allocated \$18 million in state funding for projects that implement the Bay Restoration Plan, including coastal watershed contamination prevention and coastal and marine habitat restoration. New project proposals were reviewed by the Santa Monica Bay Clean Beach Task Force, with five projects totaling \$9 million recommended for funding and approved by SMBRC’s Governing Board. Ongoing projects include: City of Los Angeles University Park Rain Gardens, Milton Park Green Street Storm Water BMPs, City of Los Angeles Westwood Greenway, County of Los Angeles Ladera Park Water Quality Improvement Project, and Rancho Palos Verdes Trash Capture Project. Ongoing. (SMBRC)



Pumpout Nav app identifies pumpout stations along the coast

Boater Education Program – A multi-faceted program designed to engage the Southern California boating community to reduce and eliminate boating-related ocean pollution. In 2017, the program continued to publish “The Changing Tide” statewide quarterly newsletters, annual tide pocketbook, and the new Pumpout Nav app for pumpout station monitoring. The program also produced and distributed 7,000 Boater Kits by staff and Dockwalker partners, trained 68 Dockwalker volunteers, and held the first advanced Dockwalker training in Marina del Rey. In 2017, 106 boaters participated in Honey Pot Day across four harbors. Ongoing. (SMBRA, TBF)

Clean Bay Certified Program – This program partners with watershed cities to certify restaurants that comply with stormwater permit requirements and the Program’s additional pollution prevention practices. This year all partner cities began using the new 34-point inspection checklist with more robust and rigorous measures such as: local or organic food purchasing policy, non-use of poison bait boxes, and offering single-use foodware only upon request. 350 food serving establishments were certified in 2017. Ongoing. (TBF)

Table to Farm Composting for Clean Air – To better address food waste and greenhouse gas emissions from landfills and transportation due to hauling waste, TBF is working with Inglewood restaurants, Social Justice Learning Institute, and Environmental Charter Middle School (ECMS) to close the food loop. In just 2.5 months, this pilot project rescued 883 lbs of food waste, which is being composted at ECMS-Inglewood, in a four-bin system. Students will learn about their local compost market, create business plans to market and distribute finished compost to local farms and gardens, and be part of a local solution to air quality and climate issues. Ongoing. (TBF)

Water Quality Monitoring – In partnership with LMU, this project evaluated stormwater runoff and pollutant reductions at the Culver City Rain Garden. In 2017, the project continued the second year of stormwater sampling and conducted analyses on the resulting data; significant stormwater capture and pollutant reductions were documented. Ongoing. (TBF)

Ballona Wetlands Outreach – This program includes a wide variety of outreach activities including presentations, nature tours, bird walks, science-in-action activities, educational trainings, newsletters, social media, and more. Ongoing. (TBF)

Water and Energy Conservation – This project worked with middle schools to conduct outreach and education on water, energy, and natural gas conservation. The project was completed in 2017 and included the development of many educational tools such as infographics and story-maps, concluding with the development of a Final Report in July. Completed. (TBF)



LMU interns at LAX Dunes

Internship Program – This program, in partnership with LMU's Coastal Research Institute (CRI), coordinates student and postgraduate research and volunteer efforts through multiple restoration and scientific data collection projects. In 2017, six paid CRI summer interns conducted research on a broad array of ecological, physical, and chemical parameters to inform TBF's programs and projects. An additional 12 undergraduate and five graduate students completed a variety of projects ranging from topographic surveys to bird surveys to analyses of long-term fecal indicator bacteria trends in Santa Monica Bay. Ongoing. (TBF)