



SANTA MONICA BAY
NATIONAL ESTUARY PROGRAM

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**FY26 Semi Annual Report
October 1, 2025 – March 31, 2026**

Report Date: April 30, 2026

**Prepared for the United States
Environmental Protection Agency**

Acronyms

BCGP	California Boating Clean and Green Program
CalCOFI	California Cooperative Oceanic Fisheries Investigations
Caltrans	California Department of Transportation
CCC	California Coastal Commission
CEC	Contaminants of Emerging Concern
CCMP	Comprehensive Conservation and Management Plan
CDBW	California Department of Boating and Waterways
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CMP	Santa Monica Bay Comprehensive Monitoring Program
CRI	Loyola Marymount University's Coastal Research Institute
CSU	California State University
CVA	Clean Vessel Act
DFA	Division of Financial Assistance of the State Water Resources Control Board
ECS	Environmental Charter Schools
EIR	Environmental Impact Report
EMPA	Estuarine Marine Protected Area
EWMP	Enhanced Watershed Management Plans
FCEC	Fish Contamination Education Collaborative
FMP	Fishery Management Plan
FY	Fiscal Year
HAB(s)	Harmful Algal Blooms
HtB	Heal the Bay
JWPCP	Joint Water Pollution Control Plant (Carson)
LACDBH	Los Angeles County Department of Beaches and Harbors
LACFCD	Los Angeles County Flood Control District
LACSD	Los Angeles County Sanitation Districts
LADWP	Los Angeles Department of Water and Power
LARWQCB	Los Angeles Regional Water Quality Control Board
LASAN	City of Los Angeles Sanitation
LAWA	City of Los Angeles – Los Angeles World Airports
LCP	Local Coastal Plan
MPA	Marine Protected Area
MRCA	Mountains Recreation and Conservation Authority
MWD	Metropolitan Water District of Southern California
NEP	National Estuary Program
NOAA	National Oceanic and Atmospheric Administration
NPS	National Parks Service
NSMBW	North Santa Monica Bay Watershed
OWDS	On-site Wastewater Disposal Systems

PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
Prop	Proposition Grant
PVPLC	Palos Verdes Peninsula Land Conservancy
PVSTIEG	Palos Verdes Shelf Technical Information Exchange Group
QAPP	Quality Assurance Project Plan
ROE	Right of Entry (permit)
RCDSMM	Resource Conservation District of the Santa Monica Mountains
SCWP	Safe Clean Water Program
SCC	California State Coastal Conservancy
SCCOOS	Southern California Ocean Observing Systems
SCCWRP	Southern California Coastal Water Research Project
SCMI	Southern California Marine Institute
SFEP	San Francisco Estuary Partnership
SMBNEP	Santa Monica Bay National Estuary Program
SMBRC	Santa Monica Bay Restoration Commission
SMMC	Santa Monica Mountains Conservancy
State Parks	California Department of Parks and Recreation
SWRCB	State Water Resources Control Board
TAC	Santa Monica Bay Restoration Commission Technical Advisory Committee
TBF	The Bay Foundation
TMDL	Total Maximum Daily Load
UCLA	University of California, Los Angeles
USC	University of Southern California
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VRG	Vantuna Research Group, Occidental College
WASC	Safe Clean Water Program's Watershed Area Steering Committee
WCB	Wildlife Conservation Board
WMP	Watershed Management Plans

Overview

This semi-annual report provides an update on the Santa Monica Bay National Estuary Program's (SMBNEP) [Fiscal Year 2026 \(FY26\) Work Plan](#) tasks for the time period October 1, 2025, through March 31, 2026. The FY26 Work Plan is focused on a subset of actions and next steps identified in the [2018 CCMP Action Plan](#). Seven goals are identified in the CCMP Action Plan and are listed below. All seven goals are addressed by the actions and next steps identified in the FY25 Work Plan and this semi-annual report. The goals are achieved through actions by many different entities, including public agencies, municipalities, and non-profit organizations that take the lead on specific projects.

Seven CCMP Action Plan goals:

1. Protect, enhance, and improve ecosystems of Santa Monica Bay and its watersheds
2. Improve water availability
3. Improve water quality
4. Enhance socio-economic benefits to the public
5. Enhance public engagement and education
6. Mitigate impacts and increase resiliency to climate change
7. Improve monitoring and ability to assess effectiveness of management actions

Structure of Semi-Annual Report

This section of the semi-annual report is organized by the individual actions included in the FY26 Work Plan. For each action the Long-term Environmental Results from the CCMP Action Plan are identified and brief updates on implementation of the next steps are included in a table. A narrative section follows the table for the steps that require more description. In some cases, the table identified that a "next step" did not have project activities during this time-period; this was due to a combination of factors including but not limited to funding, partner prioritizations, or permitting delays.

Additional information on activities can be found on the [SMBNEP website](#), the CCMP Action Plan, the FY26 Work Plan, and as part of individual products produced for each project.

CCMP Action #1*Acquire open space for preservation of habitat and ecological services*

Long-term Environmental Results / Outcomes: Publicly acquire new open space as it becomes available throughout the watershed to promote connectivity, preserve habitat, and sustain ecological services.

Action #1 Next Steps / Project Name	Objectives	Status	Update
Support partners in identification and prioritization of key acquisition or conservation easement properties.	To acquire and/or protect high priority properties that are at risk of development, or provide high diversity, include wildlife corridors, and/or provide local socio-economic benefits.	Ongoing	No activities occurred during this reporting period.

CCMP Action #2

Restore kelp forests in the Bay to improve the extent and condition of the habitat

Long-term Environmental Results / Outcomes: Restore 150 acres of kelp forest to improve habitat functions, local fisheries, and coastal resilience.

Action #2 Next Steps / Project Name	Objectives	Status	Update
Implement the rocky reef/kelp forest restoration project.	To restore 3 acres of rocky reef kelp forest by reducing urchin density within barrens to the target of 2 urchins per square meter to allow the reestablishment of giant kelp; to inform statewide restoration and management of kelp forest/rocky reefs.	Ongoing	Partnered with commercial urchin harvesters and utilized volunteer scientific divers to reduce urchin densities within 3.0 acres of urchin barrens off Underwater Arch Cove, Palos Verdes. An additional 1.3 acres of reef were pre-monitored in Underwater Arch Cove, preparing the area for restoration efforts. Of that 1.3 acres, 0.5 acres have been restored. TBF serves on the Community Work Group for the California Kelp Restoration and Management Plan, led by the California Department of Fish and Game. The Community Work Group did not meet during this reporting period.
Biological response monitoring of restoration areas.	To track the response of the kelp forest community after restoration activities occur.	Ongoing	Planning and logistics for the post-restoration monitoring of 1.3 acres of restored kelp forest in Underwater Arch Cove is complete. Post-restoration monitoring is scheduled for late spring 2026.

Action #2 Next Steps / Project Name	Objectives	Status	Update
Develop recommendations for the deposition of materials from Rindge Dam or other suitable sources to augment sediment supply.	To support scientific analyses, inform priorities, and assist with site evaluations and communications for material deposition.	Ongoing	Planning process is ongoing for the Malibu Creek Ecosystem Restoration Project including the potential use of the material behind Rindge Dam for nearshore reef restoration and sediment augmentation (see Action #9).

Action #2 Narrative:

Teams of restoration divers (via SCUBA) have been clearing the ocean floor of excess purple sea urchins (*Strongylocentrotus purpuratus*), thereby reducing herbivory and allowing for the natural recruitment and development of giant kelp (*Macrocystis pyrifera*). During the reporting period of October 1, 2025, through March 31, 2026, 3.0 acres of rocky reef was cleared of excess urchins in Underwater Arch Cove. The efforts during this reporting period have focused on a 3-acre area of reef in Underwater Arch Cove that had previously been restored via urchin culling. Surveys documented a resurgence of purple urchins in the area resulting in a return to an urchin barren state. While most of our restoration sites have continued to persist in their kelp stable state after restoration events, this area at Underwater Arch Cove has struggled to achieve the same stability. A thorough second pass over this contained area of resurgence was completed during this reporting period by teams of divers consisting of TBF staff, volunteer scientific divers, and commercial urchin harvesters. Additionally, 1.3 acres of reef with no recent prior restoration were pre-monitored, and 0.5 acres of that have been restored within the reporting period at Underwater Arch Cove.

A total of 81.41 acres of reef has been cleared along Palos Verdes since the beginning of the project in July 2013. In that time, TBF and partners documented the development of a variety of macroalgae communities occurring on the reefs, higher densities and biomass of kelp bass (*Paralabrax clathratus*) and other fish species within restoration sites, increased density of CA spiny lobster (*Panulirus interruptus*), higher algal and invertebrate diversity at all restoration sites, and increased purple sea urchin and red sea urchin (*Mesocentrotus franciscanus*) gonadosomatic indices. These increases are comparable to reference site values. Focusing on kelp restoration areas where purple sea urchin

suppression had occurred, canopy percent cover and kelp acreage increased in the completed restoration sites.

CCMP Action #3

Recover abalone populations in the Santa Monica Bay and region to support rare species and socioeconomic benefits to people

Long-term Environmental Results / Outcomes: Establish 2-3 minimally viable green and red abalone populations (i.e., at least 2,000 abalone per hectare) in the Bay; establish 1-2 viable white abalone populations (i.e., at 2,000 abalone per hectare) in the Bay.

Action #3 Next Steps / Project Name	Objectives	Status	Update
Establish abalone outplanting sites and conduct juvenile and larval outplanting.	To reintroduce abalone, test effectiveness of outplanting methods, and assess habitat site suitability.	Ongoing	During this reporting period, no additional abalone outplant (or release) events occurred. The last abalone outplants occurred in September 2025, with 2,582 red abalone outplanted to a new Palos Verdes site and 1,629 white abalone outplanted to two new Catalina Island sites. To date, a total of 10,989 white abalone have been outplanted throughout the Santa Monica Bay and Los Angeles region; with the next outplants scheduled to occur in May 2026. Dive teams maintained a suite of sensors to continually measure temperature and dissolved oxygen at the Palos Verdes and Catalina Island outplanting sites.

Action #3 Next Steps / Project Name	Objectives	Status	Update
Monitor abalone restoration and reference sites.	To conduct SCUBA-based surveys within outplant sites to assess the survivability of outplanted abalone and suitability of the site for future outplanting efforts.	Ongoing	Outplant monitoring occurred at scheduled intervals of 1-month post-outplant (or abalone release), then quarterly thereafter. Five white abalone outplant sites have been established off Palos Verdes and Catalina Island to date. During this reporting period from October 1, 2025 – March 31, 2026, abalone outplanting sites were monitored in October 2025 (1-month surveys) and January 2026 (quarterly surveys). A total of 62 live white abalone and 57 live red abalone outplants were observed across all sites; and a total of 219 white abalone shells and 411 red abalone shells were collected.
Maintain aquaculture facility for abalone.	To facilitate captive spawning and rearing of red and white abalone in support of future restoration activities for outplanting in the wild; to serve as central staging facility for southern California outplant efforts.	Ongoing	TBF staff continued to operate and maintain two abalone laboratory spaces at SCMI, holding endangered white abalone. During this reporting period, a total of 5,180 juvenile white abalone were transferred to SCMI from partner aquaculture facilities for spring and fall 2026 outplant events. The next transfer of abalone to TBF is scheduled for June 2026 to supplement the fall 2026 outplant(s).

Action #3 Narrative:

TBF operates and maintains two abalone aquaculture facilities located at SCMI. These spaces are principally used to support captive-bred white and red abalone for outplant to the ocean. Other activities involve captive-bred abalone rearing, juvenile abalone grow-out, and method development to improve abalone care and the production of abalone for outplant. The facility is a registered aquaculture facility and has been certified as “sabellid free” by CDFW, which permits abalone operations.

Site monitoring occurs at 1-month post-outplant, then quarterly thereafter. Site monitoring is not performed if weather or ocean conditions do not permit a safe or productive day of diving. For assessment, a team of divers perform either ten 4x30-meter survey transects, or the site is divided into quadrants to perform roving diver surveys. Divers use flashlights to investigate crevices and carefully look under small rocks for abalone. When a diver encounters an abalone, its location, length (if able to measure), tag ID (if able to read), and any other notes are recorded. The roving diver surveys are a new monitoring method first used in the fall of 2025. This survey method reduces diver effort and time spent at depth. Abalone outplant sites have expanded to include new sites, and are projected to do so again. The roving diver surveys are a response to this expansion allowing the dive teams to more rapidly assess a given site to ensure comprehensive coverage of all sites. These project modifications will support the continued establishment of new sites and the increase in geographic range of abalone restoration throughout the Santa Monica Bay.

TBF has established five abalone outplant sites throughout the Santa Monica Bay and Catalina Island to date, with a total of 10,989 white abalone and 6,405 red abalone outplanted. Since 2019, TBF and partners have recorded the number of shells collected and live observations of outplanted red abalone (*Haliotis rufescens*) and white abalone (*Haliotis sorenseni*). During this reporting period from October 1, 2025 – March 31, 2026, TBF and partner organizations have recorded 62 live observations of outplanted white abalone, 3 at Palos Verdes and 59 at Catalina. 57 live observations of outplanted red abalone have occurred at Palos Verdes. A total of 219 white abalone shells were collected, 34 and 185 from Palos Verdes and Catalina respectively. 411 red abalone shells have been collected off of Palos Verdes. Quarterly monitoring will continue to identify live abalone and shells to assess survivorship of outplanted abalone. Notably, the majority of live abalone and shells collected during this reporting period originated from the sites that were outplanted in September 2025 and surveyed in October 2025.

In preparation for 2026 outplanting events, TBF staff attend biweekly coordination calls led by NOAA and partner organizations to discuss upcoming fieldwork operations and outplant preparations. The next quarterly surveys are scheduled in April 2026 at all abalone outplant sites, along with site-cleanup and maintenance to prepare for the spring 2026 outplant events in May 2026. TBF staff and partners will work to outplant 6,000 white abalone to 6 sites throughout Palos Verdes, Point Loma, and Catalina Island via these outplants. The next transfer of juvenile white and red abalone to SCMI is scheduled for June 2026 to supplement the fall 2026 outplant events. Site scouting and habitat suitability surveys are planned for spring and summer 2026, with the goal to establish an additional Palos Verdes outplant site by fall 2026. Throughout this time, TBF staff will continue the operations of the aquaculture facilities involving daily abalone animal

husbandry care at SCMI.

TBF staff are in the final design stages with Tenji Aquarium Design + Build to create a new abalone aquaculture system. The new system will be in place, at SCMI, by winter 2026. This new system will replace the outdated existing system at SCMI. The new system has greater capacity to allow for the expansion of the abalone captive breeding program in future years. This expansion is further supported by the outfitting of a restoration vessel that will allow for larger dive teams and shorter transit periods to abalone outplant sites. The vessel is expected to be in service in June 2026. The aquaculture system expansion is supported by funds from the State of California managed by the California State Coastal Conservancy. The restoration vessel is supported by federal funds managed by the USEPA.

CCMP Action #4

Assess and restore seagrass habitats in the Santa Monica Bay and nearshore environments to benefit marine ecosystems and improve coastal resilience

Long-term Environmental Results / Outcomes: Restore 2-5 acres of seagrasses to the Bay to improve habitat functions and coastal resilience.

Action #4 Next Steps / Project Name	Objectives	Status	Update
Survey the extent and condition of seagrasses in the Bay using R2Deep2, side-scan sonar, and SCUBA divers to inform the Comprehensive Monitoring Program.	To survey the extent and condition of seagrasses in the Bay using SCUBA divers and side-scan sonar, to inform the CMP and restoration activities.	Ongoing	TBF and project partners conducted numerous SCUBA-based surveys to monitor seagrass within the Bay at transplant and donor sites. These surveys are conducted quarterly and involve sensor maintenance, soil cores, and site scouting. Such surveys were conducted in October 2025, December 2025, January 2026, February 2026, and March 2026.

Action #4 Next Steps / Project Name	Objectives	Status	Update
Conduct pilot restoration project(s) of offshore eelgrass in the Bay.	To conduct a pilot restoration project of offshore eelgrass in the Bay within a one-acre footprint.	Ongoing	TBF staff and partners implemented a pilot project <i>Z. pacifica</i> transplant effort in July 2021 in Santa Monica Bay. The transplant sites were last monitored in 2024, with no transplant survivors. In June 2022, TBF staff and Paua Marine Research Group staff performed the first offshore <i>Z. marina</i> transplant, which successfully expanded to 0.18 hectares of novel eelgrass habitat in 2 years off Catalina Island. Donor sites, where the transplanted grass was collected, were monitored in December 2025 and March 2026. These sites will continue to be monitored on a quarterly basis. Planning and preparations are ongoing for upcoming eelgrass transplants on Catalina Island in June 2026, and in Malibu at two sites in July 2026.
Evaluate restoration potential of seagrasses in the Bay, harbor, wetlands, and nearshore environments.	To improve understanding and probability of success for seagrass restoration projects.	Ongoing	Ongoing monitoring of donor and transplant sites involved the deployment of PAR and MiniDOT sensors in existing <i>Z. marina</i> and <i>Z. pacifica</i> beds in Santa Monica Bay, Catalina Island, La Jolla, Malibu, Goleta, and Santa Cruz Island. Data on light, temperature, and dissolved oxygen collected at these sites will be used to inform site selection for future transplant efforts.

Action #4 Narrative:

Santa Monica Bay Subtidal Eelgrass Restoration: This innovative project, funded by State Coastal Conservancy (as part of the LA Living Shoreline Project), Honda Marine Science Foundation, and NEP Coastal Watershed Grants Program, supported the experimental establishment of subtidal eelgrass offshore of Dockweiler Beach,

Redondo Canyon, and Malaga Cove within Santa Monica Bay. TBF staff and project partners applied monitoring techniques developed by the regional Submerged Aquatic Vegetation Technical Advisory Committee, led by SCCWRP. This group also provided external scientific input and recommendations to the subtidal components of the restoration project, while concurrently spreading awareness of the importance of open coast eelgrass transplants. Further, TBF staff convened preeminent SAV researchers in California to establish the “Santa Monica Bay Subtidal Eelgrass Restoration Project Technical Advisory Committee” (TAC), comprised of researchers from academic institutions, governmental agencies, and environmental consultants. This group proved invaluable in refining the approach of the project and providing essential recommendations and insights into transplanting and monitoring processes. The members of the TAC expressed overwhelming support for the project and highlighted the importance of conducting this work.

Baseline monitoring surveys of extant *Z. pacifica* donor sites were conducted by project partners in October 2020 at potential donor sites off Catalina Island, including deploying a physical oceanographic sensor tracking wave characterization. In addition, side-scan sonar mapping and SCUBA-based surveys were undertaken to estimate the number of turions (shoots) and the expanse of the donor sites. Subsequently the project harvested *Z. pacifica* material from two donor beds on Catalina Island, “Palisades”, and “East End”. The grass collected from these sites was utilized for three transplants within Santa Monica Bay. Each transplant site received roughly 500 turions, shoot-like structures supporting the blades of the eelgrass. Two methods were applied: one used a single turion placed into holes excavated by divers, and the second bundled 8-10 turions together. Post-transplant monitoring was conducted at 24 hours, 1-week, 2-weeks, 1 month, and two quarterly surveys after transplant activities to inform survivability. Quarterly monitoring of these sites last occurred in 2024 documenting no surviving transplants. During this reporting period, TBF and project partners conducted numerous SCUBA-based surveys to monitor seagrass within the Bay, at Catalina Island and elsewhere in the Southern California Bight, incorporating potential transplant and donor sites. Quarterly monitoring events occurred in October 2025, December 2025, January 2026, and March 2026. Bottom-mounted sensors continue to be deployed at Catalina donor sites. Early data were processed with results presented in a report produced in May 2023 for Restore America’s Estuaries and September 2025 for Estuaries and Coasts. TBF and PMRG also conducted site scouting efforts in April of 2025 in order to find desirable new transplant sites off the coast of Malibu. Four sites were selected and oceanographic sensors were installed at these locations. Additional site scouting occurred off Catalina Island in February and March 2026, to identify future potential offshore eelgrass transplant sites.

Relatedly, TBF, alongside Paua Marine Research Group, Vantuna Research Group, and Scripps Institution of Oceanography, procured CA State Proposition 50 funding to utilize SCUBA-based surveys, side-scan sonar, and the deployment of a suite of biophysical oceanographic sensors to record light, temperature, and dissolved oxygen. These data will further elucidate key data gaps outlined in the CCMP surrounding SAV and soft-bottom habitat within the Bay. Project partners have deployed sensors at nine sites throughout southern California, on the mainland and on select

islands, to develop a regional understanding for key factors affecting eelgrass. This three-pronged data acquisition program, diver surveys, side-scan sonar, and sensor deployment addresses the central scientific problem of determining key physical environmental drivers influencing the realized niche of *Z. pacifica*. This information will aid site selection for restoration efforts from local to regional scales with significant potential benefits for Southern California coastal shelf habitats.

In essence, the work this period is to better understand the physical, chemical and biological characteristics of sites where *Z. pacifica* exists. Potential transplant sites will be narrowed based upon characteristics, defined by the timeseries data generated by the sensors and accompanying SCUBA-based surveys. The likely locales for transplant within Santa Monica Bay National Estuary Program Study Area are along the west and south facing aspects of the Malibu coastline. Additional consideration will be applied to avoid the lingering effects of the Woolsey and Palisades fires in the nearshore soft bottom habitat. The first round of transplants into Santa Monica Bay had differing yet some initial success, i.e., the persistence of transplanted eelgrass. None of these sites are currently supporting eelgrass from the transplant effort in 2021. The next eelgrass transplants will occur in June 2026 at Catalina Island and July 2026 at two sites selected off the Malibu coast.

CCMP Action #5

Assess and implement offshore artificial reefs to benefit marine ecosystems and provide socioeconomic benefits to people

Long-term Environmental Results / Outcomes: Implement artificial reef projects to achieve 69 new acres of rocky reef habitat of a similar condition as reference reef habitats.

Action #5 Next Steps / Project Name	Objectives	Status	Update
Implement rocky reef restoration project off Palos Verdes.	To restore 42 acres of rocky reef habitat lost to landslides activity using high relief rocky modules that will resist future burial from sediment deposition.	Completed	SCMI and VRG continued post-restoration monitoring of the Palos Verdes Reef Restoration Project in 2025 (funded by Prop 12). During the reporting period, SCMI has been working on reports that will aid CDFW in the development of the California Artificial Reef Plan. Past reports describe large increases of fish biomass within the 61.9-acre restoration complex in comparison to pre-construction values. More information about this project can be accessed via this link https://www.oxy.edu/academics/vantuna-research-group/palos-verdes-reef .
Use of acoustic tags of great white sharks and other species of interest	To better understand permanence and distribution of great white sharks and other species within Santa Monica Bay		Acoustic tag data was collected in November 2025 and February of 2026 documenting the presence of nine different tagged juvenile great white sharks detected in the northern part of Santa Monica Bay near Topanga and Will Rogers and one in the south detected off Redondo Beach. Two bat rays and one leopard shark were detected near Point Dume and the Malibu Pier respectively.

Action #5 Next Steps / Project Name	Objectives	Status	Update
Preliminary work regarding the benefits of dynamic revetments and nearshore reefs.	To preliminarily advance work towards understanding dynamic revetments and nearshore reefs, including feasibility of using recycled concrete for construction.	Ongoing	The SMBNEP FY22-23 Bipartisan Infrastructure Law Work Plan , (Infrastructure Investment and Jobs Act), approved by the SMBRC Governing Board and Executive Committee includes funding for the Santa Monica Breakwater Rocky Intertidal Preserve and Adamson House Projects. Updates for these efforts will be provided in the BIL reporting.

Action #5 Narrative:

The Palos Verdes Reef Restoration Project aims to restore the nearshore ecological rocky-reef community, support an estimated six tons of reef fish and a proportional number of invertebrates, and increase the abundance of commercial and recreational species, offsetting historical losses to ecosystem services. The project received \$1,409,000 in Prop 12 funds for construction and post-construction monitoring for Year 1. Vantuna Research Group and Southern California Marine Institute completed construction of an artificial reef in September 2020 to restore rocky reef habitat near Bunker Point off the Palos Verdes Peninsula, which involved strategically placing 57,000 tons of quarry rock in a 42-acre area. The year three report for this project published in April 2024 describes increases in fish biomass on, and neighboring the reef modules. On the reef modules themselves this increase was 1,728% greater than the preconstruction values. In total, across a 61.9-acre area of restoration reef complex fish biomass increased by 329% adding up to 7.86 metric tons of fish. Annual monitoring was conducted in 2025 and a report is in development.

In 2024, Occidental College also completed data collection at 68 rocky reef sites in Santa Monica Bay as part of the SMBRC Proposition 50 Grant Program (see Action 36).

Four acoustic receivers were purchased by TBF in 2016 using USEPA 320 funds, to improve the coverage of the Southern California Acoustic Telemetry Network, led by Dr. Chris Lowe at CSU Long Beach. Three receivers were first deployed in May 2017 to sites in northern Santa Monica Bay. Currently, there are six stations maintained by the CSULB Shark Lab from Malibu Pier in the north to Redondo Beach in the south bay. Data generated by this expansion of the network will improve protection and understanding for juvenile great white sharks and other fishes tagged and recorded by

this network of sensors. In November and February, 2025 and 2026 respectively, four receivers located from Point Dume to Will Rogers recorded contact with tagged juvenile great white sharks and two other species of interest. In total nine different juvenile great white sharks were detected off of Topanga and Will Rogers. Two bat rays were detected near Point Dume and a leopard shark near the Malibu Pier (these detections occurred in November 2025). One great white shark was detected off of Redondo in November 2025. The initial tagging locations of these sharks are known and associated with their tag. Initial tagging locations ranged from Torrey Pines, San Diego County to Carpinteria, Santa Barbara County.

CCMP Action #6

Restore coastal strand and foredune habitat to beaches and sandy shores to improve coastal resilience

Long-term Environmental Results / Outcomes: Restore 10 acres of coastal strand and dune habitat along Santa Monica Bay beaches to improve ecological function, increase coastal resilience, and provide habitat for rare species.

Action #6 Next Steps / Project Name	Objectives	Status	Update
Continue long-term monitoring of the Santa Monica Beach Restoration Pilot Project.	To continue long-term monitoring to inform coastal resilience, ecosystem benefits, and adaptive management of the restoration area.	Ongoing	Planning and coordination have been ongoing to prepare for the annual monitoring of the Santa Monica Beach Pilot Project. Similar monitoring will be conducted at all of the TBF-led dune restoration sites including Zuma, Westward Beach, other dunes recently established in Santa Monica, Dockweiler, and Manhattan. The monitoring will be conducted in May and June of 2026.
Support efforts to standardize sandy beach monitoring and a regional approach to restoration	To continue efforts to standardize sandy beach monitoring and data collection for southern California through stakeholder partnerships and CMP implementation.	Ongoing	No activities were reported during this reporting period.

Action #6 Narrative:

TBF and many partners, e.g., City of Santa Monica, City of Manhattan Beach, City of Malibu, LACDBH, RCDSMM, State Parks, Audubon, Surfrider Foundation, and Girl Scout Troop 71075 conducted operations and coordinated community events to maintain, enhance, and expand vegetated sand dunes along the coastline of Los Angeles County. These dune sites improve habitat and provide protection from sea level rise by reducing coastal flooding and erosion. Progress from

October 1st, 2025 to March 31, 2026 on each project site are provided below organized from north to south.

Malibu Living Shoreline Project: two volunteer community events were conducted in Malibu. 45 participants donated 90 hours. Volunteers removed non-native vegetation and spread 3 lbs. (~1650g) of native seed including: beach burr, beach evening primrose, Seacliff buckwheat, coastal sagebrush, and California goldenbush throughout Zuma Beach and Westward Beach Dune sites.

Santa Monica State Beach: An additional 7.5 acres of dunes were established between January and March 2026, including 5.0 acres south of the pier and 2.6 acres north of the pier. This is accomplished through delineating the sites with posts and rope, signage, and planting and seeding plants native to beaches in Southern California. 600 bush sunflower and 150 California coastal poppy container stock were planted. Frequent watering of these plants was conducted throughout the spring. In addition to container plants, seed was dispersed. A total of 143.7 lbs. were applied, representing 17 species, including sand verbena, beach burr, beach evening primrose, and salt bush. 71 volunteers over 4 events donated 175 hours conducting adaptive management of the Santa Monica Pilot Project and Phase Two sites, established in 2016 and 2024 respectively. Volunteers and TBF staff weeded, seeded (5.25 lbs.), and collected seed from flowering plants. In the newly established dunes, TBF hosted 382 volunteers over 13 events, who donated 986 hours to establish these sites. Additionally, TBF conducted 5 dune tours and 18 tabling events that reached approximately 350 people.

Dockweiler Beach 38 community volunteers donated 76 hours over 3 events spreading 3.25 lbs. of native seed in the site and continued efforts to remove non-native vegetation. A monthly nature tour of the dunes, in partnership with LA Audubon and the Nature Nexus Institute, drew additional participants, including a group of 23 Palisades Cub Scouts. As part of this collaboration, TBF also monitors the site for Western Snowy Plover nesting activity. One nest was documented at the site last year and permanent orange fencing was installed to protect the nesting area.

At **Manhattan Beach** 205 volunteers donated over 454 hours, over 12 events to remove non-native vegetation and collect seed for the Santa Monica Beach Dune expansion. Tabling events set near the volunteer events and two additional school tours, informed the public about the dunes and the presence of the endangered El Segundo Blue Butterfly within the dune sites. These community events were complemented by the many days spent by TBF staff collecting and storing seed, watering plants, and maintaining the post and rope infrastructure that delineates the dune sites. Time on the dunes allowed for notable observations of nesting pairs of Western Snowy Plovers (2 nests at Dockweiler site) and Killdeer (2 pairs in Santa Monica Beach Dunes), active shorebird foraging, California legless lizards, and abundant

invertebrate and pollinator activity.

CCMP Action #8

Restore coastal bluff habitats in the Bay watershed to support ecosystem services

Long-term Environmental Results / Outcomes: Restore 5 acres of bluff habitats in the SMB watersheds to support ecosystem services.

Action #8 Next Steps / Project Name	Objectives	Status	Update
Initiate Point Dume stair replacement and bluff restoration project to benefit people and wildlife.	To replace a deteriorated beach access staircase and restore bluff habitat at Point Dume State Beach.	Ongoing	Construction was completed and is open for public use. State Parks continues to maintain the site to promote the establishment of native vegetation. Monitoring and site maintenance is ongoing.

CCMP Action #9

Implement Malibu Creek Ecosystem Restoration Project (Rindge Dam and other barrier removals) to support ecosystem restoration

Long-term Environmental Results / Outcomes: Complete implementation of the Malibu Creek Ecosystem Restoration Project including the removal of barriers to improve stream and riparian habitats and to benefit the steelhead trout.

Action #9 Next Steps / Project Name	Objectives	Status	Update
Support lead agencies in efforts to complete the design and engineering plans for the Malibu Creek Ecosystem Restoration Project.	To develop design and engineering plans to remove Rindge Dam and additional barriers, to restore terrestrial and aquatic habitat connectivity and establish natural sediment transport regime.	Ongoing	No activities were reported by partners during this reporting period.
*Support lead agencies in identifying and obtaining funding for the project	Implement removal of upstream fish passage barriers upstream of Rindge Dam	Ongoing	No activities were reported by partners during this reporting period.

CCMP Action #12

Restore smaller coastal lagoons and other wetland types to increase wetland habitat area and condition throughout the watershed

Long-term Environmental Results / Outcomes: Restore and increase wetland and transition habitat acreages for small lagoons such as Topanga Lagoon and other wetland systems to improve ecological functions.

Action #12 Next Steps / Project Name	Objectives	Status	Update
Finalize restoration planning and permitting for Topanga Lagoon Restoration Project and initiate project.	To create a restored habitat that integrates fish passage barrier removal, wetland habitat restoration, visitor services, and recreational opportunities at Topanga Lagoon.	Ongoing	Topanga Lagoon Restoration Project (funded by Prop 12) continued the design and permitting phase. RCD was awarded a Measure A grant to cover cost of all design through 10%. Grant applications were submitted to cover the final 10% design needed for bridge, roadway, and lagoon elements. California State Parks' design elements are under revision. The 60% design package for Pacific Coast Highway was submitted to Caltrans.
Complete land acquisition, feasibility analyses, and restoration design in coordination with bridge redevelopment for Trancas Lagoon.	To restore habitats adjacent to Trancas Lagoon after Caltrans bridge expansion is completed.	Ongoing	Caltrans completed the bridge spanning 250 feet as well as a sidewalk under Pacific Coast Highway. Vegetation was planted as part of the restoration. Project leads are still seeking landowner support for expanded restoration.

Action #12 Next Steps / Project Name	Objectives	Status	Update
Conduct comprehensive monitoring of small lagoons in northern Bay to inform CMP and seek funding to continue Malibu Lagoon monitoring.	To conduct comprehensive monitoring of the northern Bay lagoons, inform the Comprehensive Monitoring Program (wetlands chapter), and acquire funding to continue long-term monitoring and data collection at Malibu Lagoon.	Ongoing	See Action #36 for SCCWRP's Prop 50 project to conduct monitoring of the small lagoons in northern Bay to fill CMP data gaps.

Action #12 Narrative:

The Topanga Lagoon Restoration Project is implemented by State Parks and partners including RCDSMM, Caltrans, and LACDBH with funding from SCC, WCB, State Parks, and others. The project aims to restore Topanga Lagoon, improve habitat for the endangered steelhead trout and tidewater goby, increase resiliency to sea level rise and climate change, improve visitor experience, and enhance recreational opportunities. The Final EIR was released in August 2024 and certified in September 2024. During this reporting period, RCD was awarded a Measure A grant to cover cost of all design through 10%. Grant applications were submitted to cover the final 10% design needed for bridge, roadway, and lagoon elements. California State Parks' design elements are under revision. The 60% design package for Pacific Coast Highway was submitted to Caltrans. Additionally, Caltrans completed the bridge spanning 250 feet as well as a sidewalk under Pacific Coast Highway. Vegetation was planted as part of the restoration effort. Project leads are still seeking landowner support for expanded restoration.

In previous reporting periods, TBF coordinated with SCCWRP and Moss Landing Marine Laboratory for the Estuarine Marine Protected Area, (EMPA) monitoring program, which includes Malibu Lagoon as a study site. TBF partnered with CSULB to coordinate, deploy, and manage one water quality sensor in the lagoon.

TBF has worked with partners in this effort to provide data sondes in and neighboring other small coastal lagoons. All

sensors were lost in Topanga Lagoon during the Palisade Fire and existing sondes have been removed from other locations for repairs. CSU Long Beach continues to have loggers deployed (Van Essen CTD and MiniDOT) at one location near the back of Malibu Lagoon. Plans to redeploy sensors in Topanga are TBD and data collection is ongoing in Malibu Lagoon.

CCMP Action #13

Restore Ballona Wetlands Ecological Reserve to enhance wetland habitats and benefits to people

Long-term Environmental Results / Outcomes: Restore 577-acre Ballona Wetlands Ecological Reserve to improve wetland, transition, and upland habitats, functions, and services. Create public access trails and bike paths and encourage recreation and stewardship at the Ballona Wetlands Ecological Reserve.

Action #13 Next Steps / Project Name	Objectives	Status	Update
Support the lead agencies by contributing technical information to the Final Environmental Impact Statement and Report and permitting	To support the lead agencies in completing permitting and federal environmental review documents.	Ongoing	No activities were reported by partners during this reporting period.
Support lead agencies to identify and obtain restoration funding.	To support lead agencies in finding funding to implement the Ballona Wetlands Restoration Project.	Ongoing	No activities were reported by partners during this reporting period.

CCMP Action #14

Implement wildlife crossings and other innovative projects for benefits to wildlife and people

Long-term Environmental Results / Outcomes: Complete construction and implementation of two major freeway wildlife crossing projects to benefit wildlife, genetic diversity, and people.

Action #14 Next Steps / Project Name	Objectives	Status	Update
Support lead agencies to find funding for Phase 2 of the Liberty Canyon Wildlife Crossing project.	To implement Phase 2 of the Wallis Annenberg Wildlife Crossing , formerly the Liberty Canyon Wildlife Crossing Project, (Final/100% Design) in support of wildlife movement and safety and enhanced habitats.	Ongoing	Construction of the Wallis-Annenberg Wildlife Crossing continued. During the reporting period, powerlines were successfully installed underground. Completion is estimated for late 2026.
Support lead agencies in permitting and environmental review of Liberty Canyon Wildlife Crossing project.	To complete implementation of the Wallis Annenberg Wildlife Crossing in support of wildlife movement and safety and enhanced habitats	Ongoing	No activities reported by partners during the reporting period.

Action #14 Next Steps / Project Name	Objectives	Status	Update
*Identify additional locations for wildlife crossings	To implement the US 101 Conejo Pass Area Wildlife Tracking Study to improve wildlife connectivity from the Santa Monica Mountains to the Conejo Pass area, reduce wildlife collisions, and increase resiliency to climate change	Ongoing	No activities reported by partners during this period.

CCMP Action #15

Implement projects that improve understanding and/or enhance endangered and threatened species populations (e.g., habitat improvements for Western Snowy Plover, genetic banking)

Long-term Environmental Results / Outcomes: Improved extent and condition of habitats for rare species throughout the Bay and its watershed.

Action #15 Next Steps / Project Name	Objectives	Status	Update
Support Southern California steelhead trout genetic banking study.	To conduct the Southern California steelhead trout genetic banking study to inform population recovery.	Completed	No activities reported during this reporting period
Support restoration and monitoring activities to benefit California red legged frog populations.	To improve riparian and stream habitats to support red legged frog populations.	Ongoing	NPS continued to implement the California Red-legged Frogs Project (funded by Prop 12) including releasing tadpoles and conducting surveys. No activities reported by partners during this reporting period.

Action #15 Next Steps / Project Name	Objectives	Status	Update
Support projects within western snowy plover critical habitat.	To provide habitat and ecological benefits in support of the threatened western snowy plover and to restore critical habitat	Ongoing	Beach dune restoration sites have been established at Zuma, Westward, Santa Monica, Dockweiler and Manhattan Beach(es). These sites are actively maintained and monitored by TBF and partners e.g., USFWS, Audubon Society. Western snowy plovers have been observed in Santa Monica and Dockweiler sometimes in groups of 50 or more. Continued beach and dune restoration projects and communications with USFWS regarding projects and activities that may impact western snowy plovers and the El Segundo blue butterfly. 7.5 acres of beach dune habitat were established on Santa Monica Beach in the spring of 2026 increasing habitat opportunity for western snowy plover and other shorebirds. For more detail on dune establishment see update in Action #6. Observations of western snowy plovers and the El Segundo blue butterfly using the dune project areas is encouraging.

Action #15 Narrative:

See Action #3 in support of white abalone enhancement, Action #6 in support of western snowy plover and El Segundo blue butterfly habitat enhancement.

CCMP Action #16

Support the implementation of activities and projects such as those in Enhanced Watershed Management Plans (EWMPs) and activities identified in the TMDL implementation schedule to help achieve TMDL goals for 303d listed waterbodies in the Bay and its watershed

Long-term Environmental Results / Outcomes: Assist in achieving constituent percentage load reduction targets for waterbodies in the Santa Monica Bay according to TMDL compliance timeline.

Action #16 Next Steps / Project Name	Objectives	Status	Update
Continue to support implementation of projects identified in EWMPs and WMPs.	To allocate and oversee State Bond funding for implementation of projects identified in EWMPs and WMPs; support implementation of projects made available under the Safe Clean Water Program (SCWP).	Ongoing	No activities reported by partners during this reporting period. see also Action #17 and Action #43 for efforts related to SCWP support.
Continue implementation of LA IRWMP.	To facilitate and support coordination and allocation of IRWMP funding and implementation of projects identified in EWMPs and WMPs in the watershed.	Ongoing	No activities reported by partners during this reporting period.

CCMP Action #17

Infiltrate, capture, and reuse stormwater and dry-weather runoff through green infrastructure, LID, and other multi-benefit projects and improve understanding of ecosystem services provided

Long-term Environmental Results / Outcomes: Assist in achieving constituent percentage load reduction targets for waterbodies in the Santa Monica Bay according to TMDL compliance timeline.

Action #17 Next Steps / Project Name	Objectives	Status	Update
Complete additional LID projects throughout the watershed.	To complete more LID projects throughout the watershed to improve flood protection, water quality, and provide additional benefits.	Ongoing	SMBRC staff continued to oversee Culver City's Citywide Bioretention Basin Project (funded by Prop 50, see Action #36). Construction of the runoff capture systems is expected to begin in late 2026. SCC continued to oversee the Beach Cities Green Streets (funded by Prop 12; see additional narrative).

Action #17 Narrative:

SMBRC staff continued to oversee implementation of the following Prop 50 project:

Culver City's Citywide Bioretention Basin [Project](#): The project will implement various best management practices (BMPs) in eight locations with the aim of protecting water quality in the Santa Monica Bay watershed and addressing TMDLs. The proposed BMPs will capture dry-weather and wet-weather runoff for treatment and infiltration. By capturing this runoff before it enters the storm drain infrastructure that flows to Ballona Creek, pollutants such as metals, bacteria, and trash will be filtered and retained, therefore, not flowing into the Creek. The project will construct runoff control systems in Culver City; monitor the effectiveness of the runoff control systems on reducing pollutant loading to downstream water bodies; and conduct outreach to inform and gather feedback from the public. Native plant landscaping will also be used for biofiltration and bioretention systems, to support natural treatment processes as runoff flows through and is filtered. During this reporting period, the grantee completed the Annual Progress Report, Operations and Maintenance Plan, and the 50% and 75% Design Plans. Construction of the runoff capture systems is expected to begin in summer 2026.

SCC continued to oversee implementation of the following Prop 12 project:

[Beach Cities Green Streets Project](#): This project consists of designing and constructing Green Street infrastructure across the cities of Torrance, Redondo Beach, Hermosa Beach, and Manhattan Beach to help meet water quality objectives set for the Santa Monica Bay beaches. The Beach Cities will retrofit existing impervious areas within the public parkways and right-of-ways using green infrastructure technologies such as porous pavement, catch basin trash screens, bio-filtration / bio-retention systems and dry wells. The construction contract was awarded by City Council on May 6, 2025. Construction is anticipated to begin in July 2025.

CCMP Action #18

Support installation and monitoring of additional sewage and bilge pumpout facilities in Southern California harbors

Long-term Environmental Results / Outcomes: Meet 86-100% annual average usability percentage (based on analysis of equipment performance) for all publicly funded sewage pumpout stations throughout Southern California.

Action #18 Next Steps / Project Name	Objectives	Status	Update
Continue quarterly monitoring of public sewage pumpout stations.	To assess the condition of public sewage pumpout and dump stations.	Ongoing	Per statewide directive, as of January 2024 monitoring occurs biannually and continues to include dump stations. In October 2025, TBF and partner Morro Bay National Estuary Program (MBNEP) completed a monitoring event across 71 public sewage pumpouts and eight dump stations spanning 14 Southern California harbors. In November 2025, TBF finalized its corresponding monitoring summary report. 87% of surveyed pumpouts and 86% of surveyed dump stations were operational, and 100% of the systems tested were leak-free. Throughout this semi-annual time period, TBF continued to manage the Pumpout Nav app's user-submitted problem reports and follow up with the appropriate sewage disposal facility's stakeholders to flag the alert and the unit's non-operation.
Support installation of sewage pumpouts in Marina del Rey or King Harbor.	To provide the boating community with additional pollution prevention resources.	Ongoing	No activities were reported during this reporting period.

Action #18 Next Steps / Project Name	Objectives	Status	Update
Support efforts of neighboring harbors in installation of bilge and sewage pumpouts in Southern California.	To provide the boating community with additional pollution prevention resources.	Ongoing	TBF continued to champion CDBW CVA Installation & Operations/Maintenance grants across Southern California. Ventura West Marina and Channel Islands Harbor Patrol docks are undergoing construction, and as December 2025 TBF is championing both facilities apply for CDBW CVA installation grants to procure sewage pumpouts post-completion.

Action #18 Narrative:

TBF's Boater Education Program works to enhance stewardship and reduce ocean pollution generated by recreational boating activities. A key pollutant of focus is boat sewage. Discharging sewage overboard causes severe environmental and human health problems, especially in a state with more than four million recreational boaters. To reduce the negative impacts of discharging sewage overboard, all boaters are encouraged to use sewage management facilities including pumpout stations, mobile pumpout services, marine composting toilets, dump stations, and floating restrooms. To decrease potential sewage discharged into waterways, TBF's Boater Education Program monitors public boat sewage disposal facilities to ensure Southern California's pumpout and dump station network is operational, well-maintained, and accessible to recreational boaters. During monitoring events, the Pumpout Nav app is used for surveying and staff provides technical assistance to facility managers and supports maintenance needs and equipment replacements such as nozzles and banjo valves. The monitoring effort is supported by the federal Clean Vessel Act Education and Outreach grant administered through the California State Parks Division of Boating and Waterways. During this reporting period, monitoring of pumpout units (fall 2025) found an average 87% operability (based on analysis of equipment's functionality), and 100% of the pumpout units tested with biodegradable dye tablets were leak-free. Additionally, during this semi-annual period, monitoring of dump stations (fall 2025) resulted in 86% operability (based on analysis of the equipment).

CCMP Action #20

Support elimination of non-point pollution from onsite wastewater treatment systems

Long-term Environmental Results / Outcomes: Achieve level of performance and water quality protection set by state policy for all OWDS in the Santa Monica Bay watershed.

Action #20 Next Steps / Project Name	Objectives	Status	Update
Complete sewer connections of residential properties to the centralized wastewater treatment facility in the Malibu Civic Center area.	To improve water quality and reduce nutrient pollution through connecting residential properties to the centralized wastewater treatment facility.	Ongoing	Expanding property connections continued (Phase 2 and 3 of the project). Due to the December 2024 Franklin Fire and January 2025 Palisades Fire, approximately 303 beachfront properties along the Malibu beach area have been destroyed. Project progress is on hold until the City has resolved beach front property rebuild permitting issues. No activities were reported during this reporting period.
Continue the coordinated OWTS identification, permitting, and inspection system between the LARWQCB and the cities and counties in the watershed.	To continue to support efforts by the LARWQCB and cities and counties to achieve full implementation of the statewide policy for siting design, operation, and maintenance of OWTSs.	Ongoing	LARWQCB staff continued inspections at municipal and industrial facilities and issuing waste discharge permits as needed.

CCMP Action #21

Support policies that promote reuse, recycling, and advanced wastewater treatment to reduce reliance on imported water sources

Long-term Environmental Results / Outcomes: Help reduce dependence of the Los Angeles region on imported water and lower the percentage of imported water use by water agencies; work towards meeting the State's goals for recycled water in the Recycled Water Policy.

Action #21 Next Steps / Project Name	Objectives	Status	Update
Support recycled wastewater efforts by A.K. Warren Water Resource Facility of LACSD.	To support expansion of wastewater effluent recycling by JWPCP of LACSD.	Ongoing	The Grace F. Napolitano Pure Water Southern California Innovation Center (the demonstration facility of MWD and LACSD's Pure Water Southern California project) continued operation including testing innovative purification technologies and informing the optimal design and operation of a full-scale advanced water purification facility. During the reporting period, Metropolitan Water District and LACSD jointly certified the final EIR for the \$9.4 billion Pure Water Southern California project. Both agencies are now working on the design phase.

Hyperion Treatment Plant to implement pilot project for recycled water.	To support timely completion of Hyperion's pilot project.	Ongoing	Pure Water Los Angeles (encompassing LASAN's Hyperion 2035 and LADWP's Operation NEXT programs) continued. LASAN continued to conduct stakeholder engagement to build relationships and communication channels with stakeholders and broaden understanding of Pure Water Los Angeles, and maintain their awareness and engagement with Pure Water Los Angeles.
Support recycled wastewater efforts by Tapia Water Reclamation Facility and others through the expansion of distribution system and regional partnerships.	To support expansion of recycled wastewater distribution and reuse.	Ongoing	The Pure Water Project Las Virgenes-Triunfo continued. During the reporting period, designs for both the purification facility and brine pipeline were completed. Site clearing and initial construction activity at the purification facility and brine pipeline will start in April 2026.

CCMP Action #22

Support policies and implement projects that divert landfill waste and encourage composting to improve water quality and lower greenhouse gas emissions

Long-term Environmental Results / Outcomes: Establish 10 local community-based compost hubs and divert food waste from 20 food service establishments; distribute compost among community support agriculture, gardens, and restoration projects.

Action #22 Next Steps / Project Name	Objectives	Status	Update
Support continuation of Table to Farm compost hubs.	To reduce food waste being sent to landfills, compost food waste, and apply compost to urban gardens to grow food.	Ongoing	TBF and ECS continued to promote Table to Farm community composting and gardening throughout the school year. TBF supported the installation of irrigation at Environmental Charter Middle School-Inglewood's (ECMS-I's) fruit trees and greenhouse to initiate growing microgreens.

Action #22 Narrative:

Table to Farm, initiated in 2016, is a partnership between Environmental Charter Schools (ECS), TBF, and the community-at-large working collaboratively to reduce greenhouse gas emissions by recycling organic food waste and growing local produce. Between 2016 and 2019, three compost hubs were established at ECS Inglewood, Gardena, and Lawndale. In 2020, a [community garden was established](#) outside of ECS Inglewood's middle school campus. The garden continues to thrive and hosts regular volunteer events to support planting, harvesting, and maintenance. During this reporting period, ECS and TBF continued to advocate for community composting participation and enhanced the ECS-Inglewood's greenhouse with updated irrigation to support the growth of microgreens.

CCMP Action #24

Support the inclusion of coastal resilience through natural means and softscape measures into local coastal plan updates

Long-term Environmental Results / Outcomes: Inclusion of climate change adaptation measures in at least half of the 12 local coastal jurisdictions general plans (or equivalent) amendments.

Action #24 Next Steps / Project Name	Objectives	Status	Update
Attend stakeholder meetings for local cities LCP development / updates / implementation.	Attend and participate in stakeholder meetings, workshops, and conversations related to LCPs and promote the inclusion of natural living shoreline measures as a coastal resilience strategy.	Ongoing	No activities were reported during this reporting period.
Opportunistically assist cities in the development of sea level rise vulnerability studies.	To identify and partner with cities to develop sea level rise vulnerability studies to strategically recommend coastal resilience strategies.	Ongoing	No activities were reported during this reporting period.
Use data collected from beach restoration “soft-scape” projects to inform and assist LCP development.	To provide science-based data to inform LCP development and support beach restoration.	Ongoing	No activities were reported during this reporting period.

CCMP Action #25

Support best management practices, increased public access, and improved public facilities for beaches and other public trail systems to support both enhanced natural resources values and benefits to people

Long-term Environmental Results / Outcomes: Improve access to the coast and enhance coastal experiences through linking and expanding the California Coastal Trail; develop and build partnerships that support the implementation of natural infrastructure throughout the Bay watersheds.

Action #25 Next Steps / Project Name	Objectives	Status	Update
Support implementation of identified actions within plans such as the LACDBH Sea Level Rise Vulnerability Assessment.	To implement adaptation projects that will improve coastal resilience.	Ongoing	No activities were reported by partners during this reporting period.
Continue to advise BMPs for beaches that promote habitat condition improvements and support for unique species.	To build upon and continue partnerships with groups and agencies to benefit beach habitat conditions.	Ongoing	No activities were reported by partners during this reporting period.

CCMP Action #26

Participate in research, education, outreach, and policy on invasive species removal and control

Long-term Environmental Results / Outcomes: Reduce impact of invasive species in critical habitats throughout the Bay and its watershed as measured by the CMP.

Action #26 Next Steps / Project Name	Objectives	Status	Update
*Conduct additional studies and outreach efforts to control impacts of, manage, or reduce the sale of invasive species	Address impacts of invasive species in the watershed		No activities were reported by partners during this reporting period.

CCMP Action #27

Produce educational resources and materials and conduct outreach to improve best management practices for Southern California boaters (e.g., fuel, sewage, and hazardous waste management)

Long-term Environmental Results / Outcomes: Increase understanding and adoption of sustainable boating habits to reduce boating related pollutants entering waterways (e.g., boat sewage, used oil, antifreeze, bilge water, batteries, copper, trash, and aquatic invasive species).

Action #27 Next Steps / Project Name	Objectives	Status	Update
Produce educational materials.	To produce educational materials to increase awareness of boating best management practices to boaters.	Ongoing	TBF in partnership with CDBW and CCC's California Boating Clean and Green Program (BCGP), produced and distributed the winter 2025 Changing Tide newsletter . Between October and December 2025, TBF produced the printed and digital 2026 <i>Southern California Tide Calendars</i> (in Spanish and English). In January 2026, the 2026 Clean Boater Questionnaire was generated and distributed for virtual engagement. Between January and March 2026, TBF coordinated the assembly and distribution of more than 882 California Boater Kits.

Conduct outreach.	To conduct outreach to increase awareness of boating best management practices to boaters.	Ongoing	In November 2025, TBF finalized its community-based social marketing study with contractor, Action Research, which promoted and studied proper sewage disposal through pumpouts in Oceanside Harbor. TBF presented on community-based social marketing findings from the 2022, 2023, and 2025 pilots to 198 attendees at the Pacific Northwest Social Marketing Association's SPARKS conference. In December 2025, TBF also co-delivered a presentation on the 25th Anniversary of the Dockwalker Program to an audience of 86 attendees at the California Clean Boating Network's annual meeting. In December 2025, TBF concluded a survey that gauged Santa Monica Bay boaters' knowledge of and attitudes towards marine composting toilets (MCT), receiving 93 respondents. Additionally, in December 2025, TBF was awarded the 2026 California Clean Vessel Act Education and Outreach Grant. In January 2026, TBF attended a Channel Islands National Marine Sanctuary Advisory Council meeting to inform and address the Council's questions regarding the implementation of the Dockwalker Program, in the Santa Barbara to Ventura and Channel Islands area. (This resulted in a planned in-person Dockwalker Training in Ventura for May 2026.) In March 2026, TBF promoted and co-hosted one Dockwalker Training with State Parks and California Coastal Commission Boating
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Action #27 Next Steps / Project Name	Objectives	Status	Update
			Clean and Green Program (BCGP). 31 attendees were certified as Dockwalkers at this event. TBF co-produced the 2025 California Boater Kit Feedback Survey Report and 2025 California Boater Kit Recipient Questionnaire Report. These reports shared the boaters' assessment of the pollution prevention toolkit and environmental awareness respectively. From January through March 2026, TBF distributed 882 2026 California Boater Kits to Southern California Dockwalkers for peer-to-peer direct outreach.
Manage Pumpout Nav app.	Increase proper disposal of boater sewage.	Ongoing	Continued to manage the Pumpout Nav app to ensure that the status of pumpout and dump station operational readiness are accurate, contemporary and complete. The Pumpout Nav app allows for TBF to respond to problems reported by Southern California boaters. In February 2026, TBF initiated a contract with developer Ecom to oversee the app's California maintenance and development. Between October 2025 – December 2025 and February – March 2026, TBF directed and collaborated with Ecom to inform this work.

Action #27 Next Steps / Project Name	Objectives	Status	Update
Find funding and implement fuel spill prevention tools and outreach.	To reduce fuel and oil pollution from the boating community.	Ongoing	From January to March 2026, TBF distributed 882 (2026) California Boater Kits, each with a fuel bib and two oil absorbent sheets as well as harbor maps with oil recycling information, and more targeted oil pollutant information for Southern California boaters in partnership with BCGP. TBF also co-hosted one Dockwalker Training in March 2026 conducted in partnership with State Parks and CCC, which additionally included information on oil recycling and oil pollution best management practices.
Support and develop marine debris reduction and cleanup efforts.	To reduce fishing line marine debris from the angling community.	Ongoing	TBF continued to promote its instructional do-it-yourself fishing line recycling instructions. TBF produced the 2026 <i>Southern California Tide Calendars</i> (in English and Spanish) which include harbor maps featuring fishing line recycling station locations. In March 2026, TBF co-hosted one Dockwalker Training in partnership with State Parks and CCC, which additionally includes information on marine debris reduction and clean-up efforts.

Action #27 Narrative:

With four million boaters, California has one of the highest levels of recreational boating in the United States. This large volume of recreational activity in our waterways can come at a cost. Boat-based pollutants such as sewage, used oil, household hazardous waste, marine debris, aquatic invasive species, and emerging contaminants impair our waterways.

TBF's Boater Education Program was initiated in 1996 with a Clean Vessel Act Education and Outreach grant. The California State Parks Division of Boating and Waterways Clean Vessel Act Program and the Federal Clean Vessel Act Grant Program through the Sport Fish Restoration Program continues to support this initiative. TBF's Boater Education Program provides recreational boaters with pollution prevention tools and resources. This initiative is dedicated to reducing boat-based ocean pollution and fostering stewardship by utilizing collaboration, direct outreach, and technical assistance. Hundreds of thousands of boaters have been engaged using an adaptable strategy based on 1) the support for the provision of sewage disposal facilities like marine composting toilets and pumpout and dump stations; 2) community-based social marketing and 3) the creation of tools such as the Pumpout Nav app, *Southern California Boater's Guide*, *When Nature Calls* sewage guide, California Boater Kits, surveys, questionnaires, educational videos, and more with key partners. A collaborative approach is utilized, amplifying clean boating messages via initiatives like the Dockwalker Program, California Clean Boating Network, and strong relationships with the boating public, marinas, yacht clubs, and more.

During this semi-annual reporting period, TBF completed 2025 deliverables such as finalizing a community-based social marketing pilot, conducting a marine composting toilet survey, coordinating 2026 California Boater Kit production, and producing *The Changing Tide* winter edition, which was received by over 600 individuals. In finalizing the Oceanside community-based social marketing pilot studying proper sewage disposal via stationary pumpouts, TBF found strong community interest among boaters, a willingness to do "the right thing". Boaters noted a persistent sentiment of obstacles that made the behavior challenging. Although the study did not detect measurable behavior change, the pilots were well-received by the boaters. This research ultimately emphasizes the importance of addressing infrastructure issues to facilitate behavior change, alongside leveraging community engagement and social norms to combat sewage discharge challenges effectively. As such, TBF is beginning to conduct education and outreach on marine composting toilets (MCTs), a self-contained leak-proof sewage system, to further encourage boaters to effectively reduce the risk of discharging. TBF produced and deployed a survey to gauge the knowledge of and interest in MCTs from local Santa Monica Bay boaters. By December 2025, this survey received 93 respondents who boat in Santa Monica Bay, and two-thirds of them were aware of what an MCT is, but had concerns about maintenance and cleaning, disposing of the compost, and the initial cost and complexity of installation as barriers towards installing an MCT on board. Over half of the respondents said that they would consider installing an MCT if their concerns were addressed, indicating an openness to these systems and providing TBF with more information on how to effectively engage boaters on MCT systems.

TBF used social media to promote Dockwalker Trainings on social media via, Patagonia Action Works, and email listservs. Throughout the semi-annual period, TBF has managed the Pumpout Nav app which now has a total of 6,800 users, 5,700 new users, and an average app engagement time of 2 minutes and 39 seconds. A majority of these users (1,347) were located in Los Angeles.

CCMP Action #28

Support efforts of disadvantaged communities to achieve healthy habitats, implement green infrastructure, and reduce pollution

Long-term Environmental Results / Outcomes: Help disadvantaged communities to achieve healthy habitats through restoration and pollution reduction projects.

Action #28 Next Steps / Project Name	Objectives	Status	Update
Support IRWMP and similar programs to preferentially invest in communities with an annual median household income that is less than 80 percent of the statewide annual median household income	Deliver recycled water to schools and parks.	Ongoing	No activities were reported by partners during this reporting period.

CCMP Action #29

Reduce health risks of swimming in contaminated waters and consuming contaminated seafoods through more comprehensive source control and, advanced monitoring and public notification

Long-term Environmental Results / Outcomes: Achieve no elevated health risks associated with swimming and seafood consumption through source control, monitoring, and public notification.

Action #29 Next Steps / Project Name	Objectives	Status	Update
Continue implementation and improvement of beach water quality monitoring and reporting system.	To support SWRCB's collection and coordination of bacterial sampling results for beach water quality monitoring required under AB 411; to support Heal the Bay's efforts to standardize beach water quality monitoring and effectively disseminate the information to the public.	Ongoing	Heal the bay with the city of Santa Monica, formed the Santa Monica Pier Task Force to investigate sources of fecal indicator bacteria at Santa Monica Pier to identify solutions to improve water quality. The task force held two meetings during this reporting period. As part of the task force, Heal the Bay conducted two studies investigating water quality at the pier. Drafts of the annual reports for the Beach Report Card and River Report Card were completed and are under review in advance of publishing on May 20. The Beach Report Card and NowCast were continuously updated during this period.
Maintain and enhance the existing seafood contamination education and enforcement program.	To support and facilitate the continuation and enhancement of the existing seafood contamination education and enforcement program.	Ongoing	During the reporting period, the FCEC began Phase II, which included installing updated Do Not Consume signs at nine beaches and coastal locations. PVSTIEG released the Final Human Health and Ecological Risk Assessment in January 2026. In January 2026, USC and California Sea Grant hosted a final community member meeting on four projects funded by SWRCB that aim to improve understanding

Action #29 Next Steps / Project Name	Objectives	Status	Update
			of the human health and ecological risk due to deep ocean DDT+ deposits (i.e., ocean disposal sites, other coastal sources, and DDT processes) in the Southern California Bight.

CCMP Action #30

Conduct community engagement, education, and inform policies related to water conservation and reuse to reduce water demand and reliance on imported sources

Long-term Environmental Results / Outcomes: Help reduce dependence of the Los Angeles region on imported water and lower the percentage of imported water use by water agencies.

Action #30 Next Steps / Project Name	Objectives	Status	Update
Link water conservation with outreach events and social media.	To opportunistically incorporate water conservation topics during outreach events and on social media.	Ongoing	No activities were reported during this reporting period.
Educate, engage communities, and provide resources that promote the importance of native plants.	To promote the use of drought tolerant native plants.	Ongoing	No activities were reported during this reporting period.
Support efforts by water agencies to promote water conservation and reuse including dissemination of materials.	To promote current information on water conservation and reuse efforts developed by water agencies.	Ongoing	No activities were reported during this reporting period.

CCMP Action #32

Reduce marine debris by supporting bans on single-use items, conducting outreach, and participating in trash reduction programs

Long-term Environmental Results / Outcomes: Implement ban on single-use disposable plastics in Los Angeles County and 100% of cities throughout watershed; engage 30 food service establishments as ReThink Disposable participants.

Action #32 Next Steps / Project Name	Objectives	Status	Update
Find funding for and continue ReThink Disposable LA.	To contribute to source reduction of single-use disposable items from food service establishments.	Ongoing	Continued to promote the City of Los Angeles' LA Sanitation & Environment's (LASAN's) Reusable Foodware Microgrant Program and its impact.
Support municipality bans of polystyrene, non-recyclable plastics, and single use items.	To contribute to source reduction of polystyrene, non-recyclable plastics, and single use items through state and local legislation as well as downstream measures.	Ongoing	As of December 2025, TBF co-chairs the Reusable LA coalition with Heal the Bay. In this period, the coalition continued to promote the “ Hold the Plastic Please ” outreach campaign at various events and on social media. It also continued to meet with LA City Councilmembers to inform and advocate for a reuse for onsite dining ordinance using a model ordinance developed by the coalition.

CCMP Action #34

Improve understanding of emerging contaminants through monitoring and research to inform source control and reduce loading (e.g., fire retardants), especially in the context of climate change

Long-term Environmental Results / Outcomes: Reduce impacts of emerging contaminants on key habitats in the Bay and its watersheds.

Action #34 Next Steps / Project Name	Objectives	Status	Update
Improve analytical methodology and standardize monitoring of more emerging contaminants.	To improve availability, sensitivity, and repeatability of analytical methods for emerging contaminants to improve data quality for monitoring emerging contaminants in aquatic ecosystems.	Ongoing	The State Water Resources Control, Board is continuing development of a CEC strategic plan that will focus on prevention and source control to proactively protect public health, ecological health, and water quality. No activities were reported this reporting period.

CCMP Action #35*Monitor and inform management actions for Harmful Algal Blooms (HABs)*

Long-term Environmental Results / Outcomes: Reduce prevalence of HABs in the Bay and its waterbodies as measured by the Comprehensive Monitoring Program.

Action #35 Next Steps / Project Name	Objectives	Status	Update
Continue to support research and monitoring efforts for HABs, especially in context of extreme weather events, sea level rise, changes in ocean chemistry and temperature, and other impacts, and CMP implementation	To support research and monitoring efforts that fill data gaps in our region for HAB occurrences, frequencies, causes, and impacts.	Ongoing	No activities were reported by partners during this period.

Action #35 Next Steps / Project Name	Objectives	Status	Update
Conduct monthly maintenance of SCCOOS shore station at Santa Monica Pier and seek support for additional sensors.	To collect data on oceanographic conditions in the nearshore environment and potentially inform long-term changes related to environmental factors, including climate change.	Ongoing	No activities were reported by partners during this reporting period.

CCMP Action #36

Monitor chemical, physical, and biological characteristics in the Bay to inform climate change impacts such as ocean acidification

Long-term Environmental Results / Outcomes: Development and implementation of adaptation strategy addressing impacts of ocean acidification in the Bay.

Action #36 Next Steps / Project Name	Objectives	Status	Update
Support inclusion of impacts from extreme weather events, sea level rise, changes in ocean chemistry and temperature, and other impacts into CMP, especially through new models and data	To implement monitoring associated with new climate change indicators in the CMP; to seek funding and implement the CMP; to complete and release the State of the Bay Report.	Ongoing	SMBRC staff worked with two grantees on State of the Bay chapters (see narrative below for more information)

Action #36 Next Steps / Project Name	Objectives	Status	Update
Convene technical advisors to prioritize actions based on information from CMP.	Implement projects approved for Prop 50 grant funding that prioritize monitoring and data collection needs based on the revised CMP for major habitats in the Bay and other monitoring needs identified in the CCMP.	Ongoing	SMBRC staff continued to coordinate with DFA and awardees to oversee five approved projects that fill data gaps identified in the CMP (see additional narrative).

Action #36 Narrative:

[SMBRC Proposition 50 Grant Program](#): Five of the six approved projects fill many data gaps identified in the CMP and cover a range of habitats in the Santa Monica Bay and its watersheds including chaparral, riparian, wetlands, rocky reefs, rocky intertidal, and soft bottom (see Action #17 for Culver City's Citywide Bioretention Basin Project funded by Prop 50). SMBRC staff continue to coordinate with DFA and awardees to oversee the following projects during this reporting period:

- Assessment of the Nearshore Rocky Reef Resources of Santa Monica Bay (Occidental College): The grantee Completed all field work and data analysis and began work on the Rocky Reef Chapter of the State of the Bay, which is anticipated to be complete in May 2026.
- Support of Comprehensive Monitoring Program Wetlands Evaluation through Monitoring and Assessment of Santa Monica Bay Estuaries (SCCWRP): SCCWRP completed the Wetlands State of the Bay Chapter and presented their findings to the TAC and Governing Board in December 2025. All deliverables for the project have been met, and the project has successfully ended.
- Establishing a baseline census and ecological monitoring program for *Zostera pacifica* habitats in coastal Southern California (TBF): The grantee continued to conduct quarterly habitat monitoring, deploy sensor arrays and download data and perform maintenance of the sensor arrays at project sites. The State of the Bay Report soft bottom chapter and project completion are scheduled for June 2026.
- Looking Back to See Ahead - Using long-term monitoring data to predict species persistence across the NSMBW

(Pepperdine University): The grantee continued to conduct field work and began data analysis and modeling steps. The grantee worked with SMBRC staff and partners to address access issues. The final report on the freshwater/riparian habitat is scheduled to be completed in March 2027 with the project completed in April 2027.

- Monitoring rocky intertidal habitats in the Santa Monica Bay to support habitat assessments (CSU Fullerton Auxiliary Services Corporation): The grantee carried out field work during the fall and winter of 2025. The grantee will conduct additional field work in spring 2026.

CCMP Action #37

Increase understanding of deep-water habitats such as submarine canyons, deep reefs, and outfall pipes

Long-term Environmental Results / Outcomes: Enhance functions and conditions of deep marine environments (e.g., deep reefs) in the Bay.

Action #37 Next Steps / Project Name	Objectives	Status	Update
Conduct ROV surveys to collect physical, chemical, and visual data.	To use the ROV to conduct underwater surveys to supplement monitoring.	Ongoing	No activities reported this reporting period.
Identify and apply emerging technology and techniques to better characterize Bay habitats, including recommendations.	To utilize cutting-edge advancements in remote sensing, and remote platforms to better characterize the condition of the Bay's habitats.	Ongoing	TBF is working with NOAA and Marauder Robotics to advance design of remote sensing and remote platforms to collect data in nearshore coastal environments. Deployment is scheduled for summer 2026.

CCMP Action #38

Monitor and improve understanding of rocky intertidal habitats to inform restoration actions

Long-term Environmental Results / Outcomes: Implementation of the Comprehensive Monitoring Program to achieve a better understanding of the extent and condition of habitats in the Santa Monica Bay and its watershed.

Action #38 Next Steps / Project Name	Objectives	Status	Update
* Support study recommendations and outreach efforts for improved protection	To improve understanding of rocky intertidal habitats to fill CMP data gaps and inform restoration activities		No activities were reported by partners during this period.

CCMP Action #39

Monitor and inform effective management of Marine Protected Areas (MPAs), Fishery Management Plans, and local fisheries for recreational and commercially important species

Long-term Environmental Results / Outcomes: Inform agency enforcement plans and long-term adaptive management of MPAs, assist with fishery related public health advisories.

Action #39 Next Steps / Project Name	Objectives	Status	Update
Conduct MPA Watch to monitor and inform use of MPAs in the Bay.	To implement a community-science based program to monitor activities in MPAs and encourage appropriate enforcement and regulation activities.	Ongoing	HtB conducted 3 trainings, with 21 volunteers completing the training in full. 157 MPA Watch surveys were conducted and 3 Bioblitz events were hosted.

CCMP Action #40

Research and inform best management and pollution reduction practices to address non- point source pollution and facilitate reduction

Long-term Environmental Results / Outcomes: Assist in achieving constituent percentage load reduction targets for waterbodies in the Santa Monica Bay according to TMDL compliance timeline.

Action #40 Next Steps / Project Name	Objectives	Status	Update
Identify partners and identify funding sources for long-term monitoring efforts for LID and water conservation efforts.	To establish project partners and identify potential funding sources in support of long-term monitoring for LID and water conservation efforts.	Ongoing	See Action #36 for efforts related to CMP implementation.
Implement monitoring programs for long-term monitoring and to inform effectiveness of LID/BMP implementation projects.	To fill data gaps and inform LID/BMP effectiveness in reducing non-point source pollution, especially nutrient pollution.	Ongoing	No activities were reported during this reporting period.

CCMP Action #41

Facilitate research, monitoring, and assessments that inform more accurate waste load allocations and development of new water, sediment, and biological objectives

Long-term Environmental Results / Outcomes: Assist in achieving constituent percentage load reduction targets for waterbodies in the Bay according to TMDL compliance timeline

Action #41 Next Steps / Project Name	Objectives	Status	Update
* Conduct or support data collection for water quality objective development	To review and, as appropriate, modify and adopt water quality standards as new data and information become available or as specific needs arise.	Ongoing	No activities were reported by partners during this reporting period.

CCMP Action #43

*Implement the County-wide Safe Clean Water Program to support
stormwater pollution control projects*

Long-term Environmental Results / Outcomes: Assist in achieving constituent percentage load reduction targets for waterbodies in the Santa Monica Bay according to TMDL compliance timeline.

Action #43 Next Steps / Project Name	Objectives	Status	Update
Participate in advisory board and support implementation of projects from the new funding mechanism.	To improve stormwater management in urban areas, protect water quality within our communities, provide new sources of water for current and future generations, and contribute to water quality objectives to reduce stormwater pollution, increased stormwater retention, increased service to a Census Block Group that has an annual median household income of less than eighty percent (80%) of the Statewide annual median household income	Ongoing	The Safe, Clean Water Program's Watershed Planning Initiative was established in 2023 to support the SCW Program to make informed decisions, reduce redundancies, and enhance accountability across the region. During the reporting period, the North, Central, and South Santa Monica Bay Watershed Area Steering Committees released Initial Watershed Plans. The Plans provide detailed information on Program-wide and specific targets, needs, strategies, and opportunities within the scope of the Safe, Clean Water Program. The Plans are adaptive and will be updated as new findings arise. They are not for all-purpose watershed management and do not prescribe specific Projects.

Action #43 Next Steps / Project Name	Objectives	Status	Update
	(as defined in Water Code section 79505.5), and coordination of efforts across the County.		