SANTA MONICA BAY NATIONAL ESTUARY PROGRAM Fiscal Year 2025 Work Plan

1 October 2024 – 30 September 2025

18 April 2024

Final Work Plan approved by the SMBNEP Management Conference

SANTA MONICA BAY
NATIONAL ESTUARY PROGRAM

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Common Work Plan Acronyms

Army Corps	Army Corps of Engineers
ASBS	Areas of Special Biological Significance
BART	Baby Abalone Recruitment Traps
BEP	Boater Education Program
BIL	Bipartisan Infrastructure Law
CalTrans	California Department of Transportation
CCA	Coastal Conservation Association of California
CCMP	Comprehensive Conservation and Management Plan (formerly Bay Restoration Plan)
CCVA	Climate Change Vulnerability Assessment
CDBW	California Department of Boating and Waterways
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CDPH	California Department of Public Health
CDWR	California Department of Water Resources
CMP	Santa Monica Bay Comprehensive Monitoring Program
CNRA	California Natural Resources Agency
CoSMoS	Coastal Storm Modelling System
CRAM	California Rapid Assessment Method
CRI	Loyola Marymount University's Coastal Research Institute
CSU	California State University
CVA	Clean Vessel Act
CWMW	California Wetland Monitoring Workgroup
CWQMC	California Water Quality Monitoring Council
DMO	Del Mar Oceanographic
DDT	Dichlorodiphenyltrichloroethane
ECS	Environmental Charter Schools
EWMP	Enhanced Watershed Management Plans
FMP	Fishery Management Plan
FY	Fiscal Year
GHG	Greenhouse Gases
GPRA	Government Performance and Results Act
HABs	Harmful Algal Blooms
HHW	Household Hazardous Waste
HSWRI	Hubbs Sea World Research Institute
IRWM	Integrated Regional Water Management
IRWMP	Integrated Regional Water Management Plan
JPA	Joint Powers Authority
JWPCP	Joint Water Pollution Control Plant (Carson)
LA	Los Angeles
LACC	LA Conservation Corps
LACDBH	Los Angeles County Department of Beaches and Harbors
LACDPH	Los Angeles County Department of Public Health
LACPW	Los Angeles County Public Works
LACFCD	Los Angeles County Flood Control District
LACSD	Los Angeles County Sanitation Districts

LADWP	Los Angeles Department of Water and Power
LARC	Los Angeles Regional Collaborative for Climate Action
LARWQCB	Los Angeles Regional Water Quality Control Board
LASAN	City of Los Angeles Sanitation
LCP	Local Coastal Plan
LVMWD	Las Virgenes Municipal Water District
MARINe	Multi-Agency Rocky Intertidal Network
MDRA	Marina Del Rey Anglers
MOU	Santa Monica Bay Restoration Commission's Memorandum of Understanding
MPA	Marine Protected Area
MRCA	Mountains Recreation and Conservation Authority
MWD	Metropolitan Water District of Southern California
NEP	National Estuary Program
NEPORT	National Estuary Program Online Reporting Tool
NMFS	National Oceanic and Atmospheric Administration's National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	National Parks Service
NRC	Natural Resource Council
NZMS	New Zealand Mudsnails
OA	Ocean acidification
OAH	Ocean acidification and hypoxia
OPC	Ocean Protection Council
OREHP	Ocean Resource Enhancement Hatchery Program
OWDS	On-site Wastewater Disposal Systems
PCB	Polychlorinated biphenyls
PE	Program Evaluation
POTW	Public Owned Treatment Works
PMRG	Paua Marine Research Group
Prop	Proposition Grant
PVPLC	Palos Verdes Peninsula Land Conservancy
QAPP	Quality Assurance Project Plan
RCDSMM	Resource Conservation District of the Santa Monica Mountains
ROE	Right of Entry
SAFE	Short-Term Abalone Fixed Enclosures
SAV	Submerged Aquatic Vegetation
SCC	California State Coastal Conservancy
SCCOOS	Southern California Ocean Observing Systems
SCCWRP	Southern California Coastal Water Research Project
SCMI	Southern California Marine Institute
SCWP	Los Angeles County's Safe Clean Water Program
SFEP	San Francisco Estuary Partnership
SLC	State Lands Commission
SLR	Sea Level Rise
SMB	Santa Monica Bay
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
SWFSC	Southwest Fisheries Science Center
TAC	Santa Monica Bay Restoration Commission Technical Advisory Committee
TBF	The Bay Foundation
TMDL	Total Maximum Daily Load
TWSD	Triunfo Water and Sanitation District
UCD	University of California, Davis
UCLA	University of California, Los Angeles
UCSB	University of California, Santa Barbara
USC	University of Southern California
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WBMWD	West Basin Municipal Water District
WCB	Wildlife Conservation Board
WMP	Watershed Management Plans

I. INTRODUCTION

Santa Monica Bay National Estuary Program Entities

Section 320 of the federal Clean Water Act establishes the National Estuary Program (NEP), which is administered by the United States Environmental Protection Agency (USEPA).[1] The Santa Monica Bay National Estuary Program (SMBNEP) promotes collaborative watershed-based partnerships to develop and implement a Comprehensive Conservation and Management Plan (CCMP) that addresses a range of environmental problems facing Santa Monica Bay, while recognizing and balancing the needs of the local community. The SMBNEP is comprised of two distinct entities: the Santa Monica Bay Restoration Commission (SMBRC) and The Bay Foundation (TBF). Each entity is briefly described below. The Memorandum of Agreement describes the respective roles and responsibilities and the collaborative relationship between SMBRC and TBF to further the goals of the SMBNEP. More information on SMBNEP can be found at www.smbnep.org.

The SMBRC is a non-regulatory, locally based state entity established by an act of the California Legislature in 2002 to monitor, assess, coordinate, and advise the activities of state programs and oversee funding that affects the beneficial uses, restoration and enhancement of Santa Monica Bay and its watersheds [Pub. Res. Code §30988(d)] (www.smbrc.ca.gov). The SMBRC serves as the Management Conference for SMBNEP and is comprised of the Governing Board, Executive Committee, Technical Advisory Committee (TAC), SMBRC staff, and Santa Monica Bay Community Members. SMBRC staff provide administrative services to SMBRC and work to support the development and implementation of the CCMP, which includes activities to protect, enhance, and restore the diverse ecosystems within the Santa Monica Bay watershed that provide habitat for more than five thousand species of plants, fish, birds, mammals, and other wildlife. The SMBRC's Memorandum of Understanding (MOU) describes the governance structure of the SMBRC.

TBF is an independent, non-profit 501(c)(3) organization founded in 1990. The mission of TBF is to contribute to the restoration and enhancement of the Santa Monica Bay and other coastal waters (www.santamonicabay.org/). Serving as Host Entity for SMBNEP, TBF receives an annual federal grant from USEPA pursuant to section 320 of the Clean Water Act (CWA; 33 U.S.C. §1330) to implement the CCMP. TBF also receives important grants and donations from other entities to support TBF and its implementation of the CCMP.

In addition, Loyola Marymount University's Coastal Research Institute (CRI) works collaboratively with TBF to support CCMP and Comprehensive Monitoring Program (CMP) efforts. CRI brings together expertise from Loyola Marymount University's Frank R. Seaver College of Science and Engineering and TBF to restore and enhance Santa Monica Bay and local coastal waters. CRI contributes to a better understanding of global urban coastal resource management through the execution of projects that stem

[1] Additional information on USEPA's National Estuary Program is available at https://www.epa.gov/nep.

from TBF's work as part of SMBNEP and its efforts to implement the CCMP. CRI engages educators, academics, graduate students, undergraduate students, agencies, industry, and more in research related to coastal resource management.

Comprehensive Conservation and Management Plan and FY25 Work Plan

The original CCMP, or Bay Restoration Plan, of 1995 was updated in 2008 and again in 2013. The SMBNEP completed a major CCMP revision in 2021, including a revised Action Plan in October 2018, a Finance Plan in December 2019, an amended MOU of SMBRC in June 2020, an Introduction Chapter in February 2021, and a Comprehensive Monitoring Program (CMP) in April 2021 (all key components of the CCMP). Additionally, a Memorandum of Agreement between SMBRC and TBF was completed in August 2021.

USEPA's funding guidance describes a revision as an alteration of the CCMP that involves significant changes such as new or significantly altered goals, or to incorporate new information and data, such as climate change. Revisions are made to the CCMP through an iterative and public process with active participation from members of the SMBRC Governing Board and many members of the public. The 2018 CCMP Action Plan identified approaches and strategies intended to make substantial progress toward clean waters and healthy habitats over the next five to 20 years. It reflects the consensus of SMBNEP partners regarding the top strategies and priorities to ensure continued progress and achieve improved water quality, protection and restoration of habitats, and benefits to humans in the Bay and its watersheds. The revision to the CCMP was approved by USEPA Region 9 and USEPA Headquarters in September 2021. The process to update the CCMP began in late 2023 (see SMBNEP Organizational Needs).

This Fiscal Year 2025 (FY25) Work Plan builds off the 2018 CCMP Action Plan and is focused on a subset of the identified actions and next steps in the Plan. The purpose of the Work Plan is to identify program objectives, tasks, and timelines of the work to be performed during the federal fiscal year (FY25): 1 October 2024 – 30 September 2025, specifically to accomplish the goals and actions of the CCMP Action Plan, the CMP, and various technical, managerial, and administrative activities necessary to continue to advance the mission of SMBNEP.

In addition, USEPA identified four areas of special interest in FY21-24 NEP funding guidance (October 2020) that the FY25 Work Plan should focus on: 1) nutrient pollution reduction, 2) water reuse and conservation, 3) marine litter reduction, and 4) green infrastructure and resiliency. The CCMP Action Plan and the FY25 Work Plan incorporate many actions that focus on these special interest areas. For example, nutrient pollution reduction is addressed directly, by supporting elimination of non-point pollution from sources (Actions #18 and #20) and researching and informing best management and pollution reduction practices to address non-point source pollution and facilitate reduction (Action #40). Additional actions support pollution reduction research, projects, and policy (e.g., Actions #16, #17, and #43) and restoring habitats that mitigate pollutant loading (e.g., Action #11).

Water reuse and conservation is another important area of interest for SMBNEP and is included in the CCMP Action Plan and FY25 Work Plan directly (e.g., Actions #21, #30, and #31). Action #32 aims to reduce marine debris and other actions further support litter reduction, such as monitoring microplastics and other marine debris (Action #33), working to meet Total Maximum Daily Loads (TMDLs; Action #16), and informing non-point source pollution (Action #40).

The fourth special interest area is identified as green infrastructure and resiliency and is intended to capture habitat restoration projects and beneficial best management practices that improve resiliency, especially to coastal hazards such as flooding or other disturbances. SMBNEP's 2016 Climate Change Vulnerability Assessment identified vulnerabilities and areas where resilience should be prioritized. The 2018 CCMP Action Plan reflects that climate resiliency focus, both in the goals (see below), and in specific actions. Major habitat preservation and restoration activities that also support resilient systems include Actions #1, #2, #4, and #6-13 and capture a wide range of habitats such as beaches, dunes, wetlands, kelp forests, and eelgrass habitats, while also providing many additional benefits. Additional resiliency strategies are highlighted in the form of improving understanding of endangered or threatened species such as steelhead trout (Action #15), increasing local water supplies (Actions #17 and #21), supporting effective governance and policy (Actions #24 and #25), improving stakeholder engagement and education on impacts and solutions (Action #30), conducting research and monitoring of mitigation strategies (Actions #34-36 and #42), and developing funding and partnerships to further resiliency goals (Action #44).

CCMP Action Plan Goals

The Management Conference and the public identified the need to retain the top priorities of SMBNEP from the previous Bay Restoration Plan. Those priorities were improving water quality, conserving and rehabilitating natural resources, and protecting the Bay's benefits and values to people. Given the cross-cutting and multi-benefit nature of most of the projects and programs listed in this Action Plan, the Management Conference decided not to arbitrarily separate out projects based on categorizing them into one of the three priority areas. Rather, the three priority areas are integrated and supported throughout the Work Plan, along with a new priority area, understanding and adapting to climate change impacts.

Within these four priority areas (including understanding and adapting to climate change impacts) seven overarching goals were identified in the CCMP Action Plan and are listed below. All seven goals are priority focus areas in this FY25 Work Plan through the implementation of actions and next steps identified in Section III, SMBNEP Planned Activities. The goals are achieved through actions of many entities including public agencies 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

Connection to USEPA Goals

USEPA's FY22-26 Strategic Plan (March 2022) communicates the Agency's priorities and provides the roadmap for achieving its mission to protect human health and the environment including seven major strategic goals and four cross-agency strategies. The FY25 Work Plan and the CCMP serve several of USEPA's goals, but SMBNEP's work is especially focused on Goal 1: Tackle the Climate Crisis (including Objective 1.2) and Goal 5: Ensure Clean and Safe Water for All Communities (including Objectives 5.1 and 5.2). SMBNEP is also taking steps to better address Goal 2: Take Decisive Action to Advance Environmental Justice and Civil Rights (including Objectives 2.1 and 2.2; see Advancing Equity discussion below). This Work Plan also includes activities that will contribute to USEPA's FY23-24 National Water Program Guidance and the FY21-24 CWA §320 National Estuary Program Funding Guidance.

Advancing Equity

While not required by USEPA for annual CWA section 320 funds, SMBNEP strives to align the FY25 Work Plan tasks with the priorities for the Bipartisan Infrastructure Law (BIL) funds identified in the NEP BIL Funding Implementation Memorandum for FY22-26: to ensure that benefits reach underserved communities and to build the adaptive capacity of ecosystems and communities.

For BIL funds, NEPs must develop a BIL Long-Term Plan describing the key activities in all funding years and an Equity Strategy detailing how the NEP will contribute to the goal of at least 40 percent of BIL funding benefits flowing to underserved communities consistent with the Justice40 Initiative.

The BIL Equity Strategy was submitted to USEPA on 1 June 2023 and approved by USEPA. Per USEPA guidance, the BIL Equity Strategy includes the following:

- A definition of underserved communities;
- The percentage of NEP funds prior to BIL funding flowing to projects that benefit underserved communities (i.e., a baseline);
- Analysis of underserved communities that may benefit from NEP projects to identify where additional investments can be made that benefit such communities while implementing CCMPs;
- Numeric targets for activities supporting underserved communities and key activities to achieve these goals;

- How benefits will be tracked; and
- A stakeholder engagement plan to ensure public participation and that community stakeholders are meaningfully involved in what constitutes the benefits of a program.

Unless otherwise indicated, the FY25 Work Plan uses “disadvantaged community” to be consistent with projects and programs that use the definition provided in Water Code section 79505.5, subdivision (a): A community with an annual median household income that is less than 80 percent of the statewide annual median household income. The FY25 Work Plan uses “underserved communities” to refer to communities that may experience low income, linguistic isolation, less than high school education, unemployment, adverse health outcomes, pollution burdens, limited access to green and open space, are not being reached by SMBNEP’s current engagement strategies such as Black, Indigenous, and People of Color communities, or other inequities. The FY25 Work Plan includes efforts to engage the public (e.g., Actions #6, 7, 13, 27, 30-32) and support disadvantaged communities in achieving healthy habitats, green infrastructure, and pollution reduction (Action #28).

The BIL Equity Strategy is a starting point for better identifying and engaging with disadvantaged communities, underserved communities, and Black, Indigenous, and People of Color communities and identifying partners, barriers, and projects that directly benefit these communities. SMBNEP will have an opportunity to consider integrating equity into all of its work during the process to update the CCMP, which began in late 2023.

See Section II (Programmatic Updates) for discussion of BIL-related work accomplished in FY23 and Section III (SMBNEP Organizational Needs) for additional BIL work to be conducted in FY25.

II. WORK PLAN OVERVIEW

Work Plan Structure

This section of the Work Plan provides a brief discussion of the Work Plan's structure and a summary of SMBNEP program accomplishments and key projects. Section III details the individual actions, next steps, objectives, deliverables, and environmental outcomes (results) and SMBNEP organizational needs. Many of these actions or next steps have detailed implementation, monitoring, or permitting plans and summarizing them all would make this document an unmanageable size. For additional details on individual projects, refer to TBF's website and SMBNEP annual work plans, semi-annual reports, and annual reports on SMBNEP's website. Appendix A of this Work Plan lists projects that were completed in FY24. Section IV and Appendix B will depict the Work Plan budget, travel documentation, and SMBRC and TBF staff once finalized in the April draft submitted to the SMBRC Governing Board for consideration of approval.

The Work Plan was developed from the CCMP Action Plan and input from the SMBRC Governing Board, the SMBRC Santa Monica Bay Community Members workshop, SMBNEP partners, the public, and SMBRC and TBF staff. This process involves public meetings as well as a written comment period to facilitate input. The development of an annual work plan is a core function of an NEP. The annual federal CWA section 320 NEP grant is administered by USEPA and awarded to an NEP for carrying out annual work plan activities. Non-federal grant matching funds are required at a minimum rate of 1:1. The scope of this Work Plan is broad and multifaceted. Significant efforts will be devoted to carry out water quality improvement and habitat restoration programs and projects this year, in support of many of the actions in the CCMP Action Plan. The structure of the Work Plan is intended to mimic the structure of the CCMP Action Plan to better communicate progress towards implementing the 44 actions in the CCMP Action Plan.

There will also be a focus and efforts in FY25 to implement programs that connect and integrate issues (e.g., climate change and comprehensive monitoring), and efforts to improve public outreach and participation. As part of the stakeholder education and engagement category, there will be efforts to provide opportunities for public information exchange and discussion on issues important to SMBNEP and community members. This may include scheduled informational items during SMBRC Governing Board meetings or separate workshops. Although not identified for specific actions in this Work Plan, topics for SMBRC Governing Board meeting informational items and workshops will be planned on an as-needed basis throughout the fiscal year. Additionally, USEPA-required reporting will be conducted as part of this Work Plan but work to develop the reports is not tied to a specific action. Consistent with USEPA NEP funding guidance, reporting includes a semi-annual and an annual report outlining how funds were spent in the fiscal year and annual reporting on habitat restored and funding leveraged (i.e., NEPORT). SMBNEP also publishes the Baywire newsletter for updates on SMBNEP activities throughout the year.

Work Plan Changes from FY24

The formatting this Work Plan remains largely the same when compared to the FY24 Work Plan, which was updated from previous work plans to improve accessibility and readability. In this Work Plan, each action has its own section with a table of next steps that are consistent with the CCMP Action Plan. Project leads, partners, objectives, and descriptions are identified. Many of the priorities and actions remain similar to previous years. New next steps or projects that are part of the FY25 Work Plan are emphasized in the tables with asterisks. If an action identified in the CCMP Action Plan is not contained in this Work Plan, it still remains a priority of SMBNEP. It may be that funding hasn't been identified for FY25, or that action may still be in development or in a planning stage. This does not preclude those next steps from being included in future work plans.

SMBNEP Program Accomplishments from Previous Fiscal Year (2024)

This section highlights programmatic updates and accomplishments by CCMP action number from federal fiscal year, FY23: 1 October 2022 - 30 September 2023.

Programmatic Updates

SMBNEP Website – The SMBNEP website (https://www.smbnep.org/), which launched in late September 2021, serves to inform the public about SMBNEP's purpose and priorities, outlines SMBNEP's organizational structure, provides information on SMBNEP activities, and is a repository for plans, reports, and other guiding documents that detail SMBNEP's tasks and accomplishments. Between 1 October 2022 and 30 September 2023, the site received 1,126 visitors and 3,325 page views.

SMBNEP BIL Work Plan – On 15 September 2022, SMBRC approved the Work Plan for FY22-23 federal Bipartisan Infrastructure Law funds (BIL Work Plan). The BIL Work Plan includes eight projects of new and ongoing efforts to advance equity and climate resilience in the Santa Monica Bay watersheds and further the CCMP Action Plan. TBF and SMBRC staff continue to implement the BIL Long-term Plan and inform the Equity Strategy.The BIL Long-term Plan outlines activities for the eight projects identified in the FY22-23 BIL Work Plan. In September 2023, USEPA approved the SMBNEP BIL Equity Strategy for implementing the projects outlined in the BIL Work Plan. The Bay Foundation presented on the approved Equity Strategy at the 19 October 2023 SMBRC Governing Board meeting.

Action #1 Acquire Open Space

Upper Escondido Canyon Park Acquisition - In March 2023 the Mountains Recreation and Conservation Authority acquired 88 acres of open space for about $4.83 million to add to Escondido Canyon Park in Santa Monica Mountains. The project protects high-quality habitat and open space, benefits special status species, enhances climate resilience, and expands public access including to highly visited areas by members of historically underrepresented communities. The property supports regional habitat connectivity and wildlife movement. It also provides ecosystem services for the Mountains such as carbon sequestration, preservation of water quality and watershed

health in the North Santa Monica Bay watershed, and support of pollinator species. Partners include Trust for Public Land, Santa Monica Mountains Conservancy, California Natural Resources Agency, Wildlife Conservation Board, National Park Service.

Agoura Hills Santa Monica Mountains Gateway Acquisition - In December 2022 Mountains Recreation and Conservation Authority acquired 8.2 acres in Agoura Hills for $2.63 million. The area abuts hundreds of acres of protected open space including the in-construction Wallis Annenberg Wildlife Crossing. About two miles away is Ventura County's Habitat Connectivity and Wildlife Corridor designed to support connectivity between Santa Monica Mountains, Simi Hills and Santa Susana Mountains. The project protects habitat, provides wildlife refuge due to climate change, enhances habitat connectivity, and benefits threatened and endangered species. The project will also enhance public recreational opportunities by linking existing trail systems. Partners include Wildlife Conservation Board and the City of Agoura Hills.

Action #2 Restore Kelp Forests

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, 2022 through September 30, 2023, 3.78 acres were pre-monitored, and cleared of excess urchins off Point Fermin. Restoration efforts will continue to be conducted to further work at Point Fermin and Underwater Arch Cove. The specific area being cleared off Point Fermin was initially cleared in 2015-2017 when dive teams noticed recently settled purple sea urchins, roughly 2-5 mm in diameter across the reef. Restoration efforts were resumed in January 2022 and, no observations of a new recruitment class have been made.

A total of 62.55 acres of reef have 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 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 fransicanus)* gonadosomatic indices. These increases are comparable to reference site values. Focusing on kelp restoration sites, where purple sea urchin suppression had occurred, canopy percent cover and kelp acreage increased.

Action #3 Recover Abalone Populations

TBF operates and maintains two mariculture facilities located at SCMI. These spaces serve as a wet lab and hatchery for abalone rearing, experimentation, and long-term housing of broodstock. The facility is a registered aquaculture facility and has been certified as "sabellid free" by CDFW.

TBF has established two outplant sites off Palos Verdes, PVR01 and Chile Verde. Since the spring 2021 white abalone outplant date, TBF and partners have recorded the number of shells collected and live observations of outplanted red and white abalone.

During this reporting period, TBF and partner organizations have recorded 91 live observations of outplanted abalone and collected 387 white shells and 23 red shells. Quarterly monitoring will continue to identify live abalone and shells to assess survivorship.

To aid in acclimation to the ocean abalone are placed in PODs, (Protective Outplanting Devices). The abalone spend two weeks in the PODs before the PODs are opened. This allows the abalone to acclimate to the ocean and researchers to document initial mortality among the abalone. At two weeks the abalone can egress from the PODs continuous monitoring of a subset of the PODs is accomplished using a time lapse camera and sensors measuring temperature and dissolved oxygen, Dive teams survey and monitor the abalone outplant sites on the following schedule from the time the PODs are opened: one week, two weeks, one month, and quarterly. Site monitoring is not performed if weather or ocean conditions do not permit a safe or productive day of diving. For assessment, the site is broken into ten 4 x 30-meter surveys and the divers will survey that area in approximately 40 minutes. 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), other notes may be recorded.

In preparation for 2023 outplanting events, on January 5, 2023, 539 white abalone were transferred from Aquarium of the Pacific to one of TBF's abalone facilities at the Southern California Marine Institute (SCMI). On January 12, 2023, due to storm impacts and flooding, The Cultured Abalone Farm (TCAF) evacuated approximately 2,030 white abalone to TBF abalone facilities. On February 1, 2023, TBF staff transferred 216 white abalone from the Moss Landing Marine Lab (MLML) to the TBF abalone facilities. In July 2023, 373 white abalone were transferred from BML by a volunteer LightHawk flight and 141 were transported by vehicle from the Santa Barbara Sea Center. Any abalone 25mm or greater in size were selected and outplanted in spring and fall 2023 at the experimental abalone sites off Palos Verdes and San Diego.

Action #4 Assess and Restore Seagrass Habitats

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, incorporates the experimental establishment of subtidal eelgrass offshore of Dockweiler Beach, Redondo Canyon, and Malaga Cove within Santa Monica Bay. TBF staff participated on the regional Submerged Aquatic Vegetation Technical Advisory Committee, led by SCCWRP. This group 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, broad bladed eelgrass *Zostera pacifica* donor sites were conducted by project partners in October 2020 at 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 and expanse of the donor sites. Subsequently the project harvested *Z. pacifica* material from two donor beds on the backside of Catalina Island, “Palisades”, and “East End”, 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. Thus far, 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 will continue through 2022.

Survivability varied from site to site and by method. In general, survivability at 24 hours was 100% across all sites and methods, except for the single shoot method at Dockweiler which had a survivorship of 91%. At the one-month interval survivorship at Redondo (85% single and 85% bundle) and Malaga (86% single and 77% bundle) outperformed Dockweiler (74% single to 26% bundle). At the 20 October 2021, quarterly survey survivorship at Redondo (80% single and 61% bundle) and Malaga (83% single and 60% bundle) outperformed Dockweiler (60% single to 11% bundle). At the February 4, 2022, quarterly survey survivorship at Malaga (36% single and 27% bundle) outperformed Redondo (0% single and 0% bundle) and Dockweiler (0% single to 0% bundle). At the 18 April 2022, quarterly survey survivorship at Malaga (14.3% overall) outperformed Redondo and Dockweiler (0%). On the 28 July 2022 quarterly survey, no eelgrass was observed in any sites.

During this reporting period, TBF and project partners conducted numerous SCUBA-based surveys to monitor seagrass within the Bay, both transplant and donor sites. Quarterly monitoring events occurred in October 2022, January 2023, April 2023, and June 2023. Bottom mounted sensors were deployed in the donor sites from September 2022 through March 2023. These data have been processed and we represented in the final grant report produced in May 31, 2023. Additional visits to transplant and donor sites are scheduled for the upcoming reporting period for both biological monitoring surveys and to retrieve and deploy additional sensors. 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 will deploy sensors at nine sites to acquire a suite of environmental data metrics. A three-pronged data acquisition program will address the central scientific problem of determining key physical environmental drivers influencing the realized niche of Z. pacifica and enhance applied restoration efforts from local to

regional scales with significant potential benefits for southern California coastal shelf habitats.

Action #5 Assess and Implement Offshore Artificial Reefs

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 amount 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. During this reporting period, the project leads completed the Year 2 post-construction monitoring report, indicating increased percentage of biotic benthic cover and fish biomass compared to before construction at and near the restoration site. No invasive species were recorded at the restoration site nor at any nearby reefs at the same depth. Project leads began monitoring for the Year 3 post-construction monitoring report, anticipated to be released in summer 2024. In 2023, additional monitoring continued at this project site and nearly every other rocky reef in Los Angeles County through funding from the SMBRC Proposition 50 Grant Program (see Action 36).

Four acoustic receivers were purchased by TBF in 2016 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.

Action #6 Restore Healthy Beaches

Santa Monica Beach Restoration Pilot Project: A report encompassing the results of five years of monitoring, post restoration, was produced in December of 2021. The report describes the expansion of vegetation, formation of dunes 0.5 meters in height, with sand accretion along the perimeter fence up to one meter in height. Western snowy plovers were regularly reported in monitoring data.

TBF staff visited this site periodically during the reporting period, collecting trash and inspecting the site infrastructure for damage or displacement. The site continues to develop desirable dune characteristics and the vegetation continues to mature. This year the flowers on the primrose, beach bur and sand verbena at this site have persisted through the fall, adding a great deal of beauty to this well-functioning site. The heavy rains and large waves of this winter caused driftwood to wash onto the site. This wood will contribute to heterogeneity and is likely to contribute to future dune development. The history of this project, a site tour, and the results of the monitoring occurred on January 12th, 2023, at the Beach Ecology Coalition Meeting hosted at the Annenberg Beach House.

Santa Monica Dune Restoration Project: This project was planned in partnership with City of Santa Monica, California State Parks, Audubon Society, and public stakeholders and will include restoration of approximately 5 acres of beach habitat on Santa Monica Beach, including the area with an existing snowy plover enclosure. This project was approved to receive funding by the Refugio Beach Oil Spill Trustee Committee in September 2021 through the National Fish and Wildlife Foundation. The grant agreement was executed in July 2022. Project outreach, stakeholder engagement, planning, design, and permitting were begun in fall 2022. As of fall 2023, TBF and partners are working with the Coastal Commission to finalize the Coastal Development Permit before implementation.

During the reporting period, TBF staff interacted with the City of Santa Monica, LA County Lifeguards, LA County Beaches & Harbors, CA State Parks and other stakeholders to inform site footprint, location, and the plant palette for the future restoration site. Further outreach and stakeholder engagement continued through the fall of 2023.

Malibu Living Shoreline Project: This project, in partnership with the City of Malibu, Los Angeles County Department of Beaches and Harbors (LACDBH), and State Coastal Conservancy (SCC) aims to restore approximately three acres of sandy beach and dune habitats at Zuma Beach and Westward Beach to improve coastal resilience and increase the health of the beach systems through a living shoreline approach. All permits, including ROE and CDP, were obtained in winter 2020. Implementation was conducted in winter 2020-21 and resulted in removal of approximately 25 tons of invasive iceplant and other non-native vegetation from the project area. Implementation also included planting over 500 native plants, seeding, and the installation of post and rope fencing to delineate the project boundary and pathways. Other elements included sand fence segments and biomimicry stakes to promote dune growth. The first three rounds of semi-annual post-restoration monitoring were completed. TBF conducted supplemental seeding and planting with community and student support. Interpretive signage was installed in May 2022. The Year 1 Annual Report was finalized in May 2022. Adaptative management and site maintenance are ongoing.

During this reporting period, the dunes at the Zuma Beach site remained in good condition and the plants seemingly benefited from the prodigious rains of the winter and early spring of 2022-2023. The high wave events in early January that caused pronounced coastal erosion at other foredune beach restoration sites, had little impact at Zuma. Discharge from the Creek and Zuma lagoon was expansive and cut through the beach berm leaving a scarp from the lagoon edge along the restoration site to the breach at the surf line. TBF staff visited and cleaned up trash and debris within the site and led two tours with Malibu Middle School students. These tours involved species identification, data collection along defined transects, and exploration of coastal dynamics. There was moderate damage to the site from Hurricane Hilary (August 2023).

The Westward Beach site was significantly impacted by coastal erosion associated with the high wave energy impacting the beach in the first two weeks of January 2023. LACDBH responded to these changes in the beach profile by creating a rock revetment

to protect the restrooms located near the northern extent of the Westward Beach parking lot. TBF staff recovered infrastructure associated with the project site on the 7th and 9th of January. This included the recovery and transport offsite of sand fencing, and post and rope. Dramatic recontouring of the site has occurred. TBF presented at a meeting of the Beach Ecology Coalition on January 12th, 2023. The presentation included images and descriptions of the changes that occurred at Westward Beach only days earlier. TBF staff spent several days onsite, in the late-spring/early-summer reestablishing the restoration site boundaries. Some modifications to the sites were made in response to the changes to the beach. A new approach toward the segmentation of the rope strung between the posts should allow staff to quickly remove segments of the line while leaving the posts in place. If successful, this strategy will limit the time needed to reestablish these and other sites in response to changes to the beach while maintaining the presence of the boundary i.e., the poles. Further assessment of this approach will occur in winter 2023-2024.

Los Angeles Living Shoreline Project: This innovative project, in partnership with LACDBH, State Parks, SCC, and Honda Marine Science Foundation, aims to implement a multi-habitat approach to restore approximately 3.5 acres of beach and coastal bluff habitat. This project at Dockweiler Beach directly supports a disadvantaged community and adds to SMBNEP's efforts to improve coastal resilience in Los Angeles County. It also incorporates the experimental establishment of offshore eelgrass within a one-acre footprint (see Action #4 – eelgrass).

TBF implemented the beach portion of the project in January through March 2022. As part of implementation activities, TBF and LACC removed the old existing plover enclosure fence and replaced it with post and rope fencing. The outer project perimeter and interior pathways were also delineated with post and rope to guide beach visitors through the site. In addition, non-native sea rocket was hand pulled, and the project area was subsequently seeded with native dune species. Approximately 200 native plants were planted in the project area outside of the plover enclosure. Sand fencing segments were also installed in this area to help promote dune growth. The first round of post-restoration monitoring was performed in August 2022 and was repeated in August 2023.

For the bluff portion of the project, additional coordination and permitting with the City of Los Angeles Bureau of Engineering was necessary. TBF submitted a Right of Way permit application to the city in December 2021 and a local CDP application in January 2022. Following submission of the CRP application package, the City of Los Angeles waived the need for a local CDP. A Right of Way permit was obtained in July 2022. Implementation of the bluff was completed in October 2022. Over the course of several weeks' crews installed silt fencing, pulled and removed ice plant, and installed erosion prevention measures, i.e., stakes and wattles. The final action taken in this sequence was the application of a seed mix utilizing hydroseeding as an additional measure of erosion control and to promote germination of the seeds. This site required maintenance during and after the heavy rains with repeated repair or replacement of sections of the silt fence. Repositioning and re-staking of sections of wattle were also undertaken. Ongoing communications with LACDBH operational staff helped manage the site during this challenging period as the rains and storm water flows from Vista Del

Mar caused considerable erosion. TBF has yet to reenter this area following the erosion and construction of retaining walls. Onsite assessment and management of the bluff site will resume when permissible.

The beach dune aspect of this project was impacted by the high energy wave events in early January. On January 10th, TBF staff recovered and removed displaced post and rope from the site, other materials undamaged by the storms, were left in place. These infrastructure elements were redeployed in late spring commensurate with the local changes in the beach topography. Communication with USFWS occurred in early March to coordinate any activities that might be undertaken if western snowy plovers were present or observed nesting in or neighboring the site.

Manhattan Beach Dune Restoration: The goal of this project is to restore approximately 3 acres of dune habitat along the beach in the City of Manhattan Beach to provide infrastructure protection and increase coastal resilience, while improving habitat quality. The project is located on existing back dunes along the coast of Manhattan Beach, adjacent to Bruce's Beach, from approximately 36th Street to 23rd Street, within approximately 0.6 miles of coastline. The restoration project involves the removal of non-native vegetation, seeding / planting of native vegetation, strategic installation of sand fencing and other features to help establish vegetation, installation of post and rope, and installation of interpretive signage. TBF obtained a ROE permit to conduct scientific monitoring on-site in May 2021 and amended the permit in December 2021 to include implementation and post-restoration activities. The final CDP application package, including the Restoration and Monitoring Plan, was submitted in August 2021 and subsequently approved in January 2022. TBF drafted the application for the LACFCD permit in October 2021 and received and secured the Flood Construction Permit in January 2022.

Restoration commenced in January 2022 and is ongoing. With support from LACC, community volunteers, and project partners, TBF removed and disposed of nearly 28 tons of iceplant and planted 1,400 native dune plants. The post and rope pathways and project boundary were delineated and sand fencing segments were installed to promote dune growth. TBF coordinated with LACDBH to obtain Special Events Permits for community restoration events to support implementation.

During this reporting period, TBF conducted several days of site maintenance. Additional container stock from native plant nurseries was planted in October along with some modest weeding. The replacement of signage and installation of a few segments of sand fencing was conducted in December 2022 in advance of the holiday break and again in April 2023, after the winter rains. Manhattan Beach was also impacted by high wave energy in January with little discernable impact to the dune sites. Maintenance and volunteer activities have been ongoing in 2023, and additional weeding, seeding, and planting will be undertaken to improve the condition of these dunes.

Action #7 Restore LAX Dunes

The LAX Dunes are the largest remaining remnant contiguous coastal dune system in Southern California. The 302-acre dune site is owned and managed by Los Angeles World Airports (LAWA). The site provides habitat for over 900 species, including the

beautiful and delicate federally endangered El Segundo blue butterfly. During this period, TBF continued coordination and work with LAWA and partners on revegetation efforts, habitat restoration, future restoration planning, and scientific monitoring of the LAX Dunes. TBF is supporting LAWA in their efforts to further the restoration of an additional 50 acre plot, specifically to improve habitat values for the El Segundo blue butterfly. These efforts would focus on reducing the presence and impacts of non-native and invasive vegetation while increasing the presence of sea cliff buckwheat.

Action #8 Restore Coastal Bluffs

In March 2023, the PVPLC completed the Abalone Cove Habitat Restoration Project (managed by SCC), restoring 13 acres of rare coastal bluff habitat to support threatened and endangered species, reduce coastal erosion, and improve water infiltration in the Abalone Cove Reserve. See Appendix A (Completed Projects) for more information.

Additional coordination between TBF and LACDBH continues regarding potential bluff restoration projects adjacent to county beaches, including several sites at Dockweiler Beach, and one being led by LACDBH. Several bluff restoration projects are being conducted in the SMBNEP study area by partners such as Palos Verdes Peninsula Land Conservancy, Los Angeles Conservation Corps, City of Redondo, and South Bay Parkland Conservancy. Projects are removing invasive species, planting natives, and providing habitat for the federally endangered El Segundo blue butterfly. Additional work continues through a stakeholder engagement group known as the El Segundo Blue Butterfly Coalition (ESB Coalition), bringing together partners from many different non-profit groups, agencies, and representatives from municipalities. The ESB Coalition is working on several projects, including updates to their new website, a mapping tool to track restoration efforts, and coordination of project updates and discussions from many partners.

Action #9 Implement the Malibu Creek Ecosystem Restoration Project:

The **Malibu Creek Ecosystem Restoration Project** aims to restore aquatic habitat connectivity along Malibu Creek and its tributaries, establish a more natural sediment regime from the watershed to the shoreline, and restore aquatic habitat of sufficient quality along Malibu Creek and tributaries to sustain or enhance indigenous populations of aquatic species within the next several decades, allowing for migratory opportunities to roughly 15 miles of aquatic habitat that have been unreachable for many decades in this watershed. The project involves the removal of Rindge Dam and approximately 780,000 cubic yards of sediment behind the dam and modification/removal of eight upstream barriers within the Malibu Creek watershed.

During the reporting period, State Parks selected a consultant team and started the pre-construction, engineering, and design phase. This phase includes baseline biological surveys, hydrology/hydraulic modeling and flood risk assessment, engineering plans, environmental permitting, public outreach, and other project studies to advance the project to a 90% level of design. The target date for completion of this phase is March 2026. A public workshop was held on June 13, 2023 to receive public input on this phase of the project. Community events and outreach programs are planned for public and student education and information will be shared about traditional lands and cultural

legacies in consultation with Pipimaram (Fernande?o Tataviam), mitsqanaq'n (Venture?o Chumash) and Tongva (Gabrielino) people. State Parks staff presented an overview of the project at the 19 October 2023 SMBRC Governing Board meeting.

Action #12 Restore Small Coastal Lagoons

The **Topanga Lagoon Restoration Project** is implemented by State Parks and partners including the RCDSMM, Caltrans, and LACDBH with funding from SCC, WCB, State Parks, and others. The project aims to restore Topanga Lagoon, enhance wildlife connectivity, 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. During this reporting period, project leads received funding for a study on wave form and morphology for each project alternative and continued the CEQA process. State Parks, RCDSMM, and LACDBH also submitted a proposal for about $5.6 million to fund final design and permitting of the project's visitor-serving elements by December 2026. The project's TAC met in April 2023 to review the draft project analyses and provide expert guidance on regulatory considerations, prioritize conflicting goals for restoration, and identify any deficiencies. A public meeting was held in June 2023 to provide an update on the project status, recent planning developments, alternative restoration designs, and the vision for the future of Topanga Lagoon and Beach.

TBF continued coordination 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. CSULB and partners implemented the first round of EMPA monitoring in the lagoon in March and April 2021 and another in fall 2021, including fish traps, nutrients, and other metrics. SCCWRP led a Proposition 50 proposal in partnership with TBF and CSULB to fill CMP data gaps for the small northern Bay wetland lagoon systems, which was approved.

Additionally, a proposal led by SCC to the EPA Wetland Program Development Grant (including TBF and many other partners) to help take the next steps in standardizing regional wetland monitoring for southern California. This proposal was preliminarily accepted, with additional work towards a Scope of Work by SCC and partners.

Action #13 Restore Ballona Wetlands Ecological Reserve

Ballona Wetlands Restoration Project – CDFW completed the final environmental document for a project to restore the Ballona Wetlands Ecological Reserve, the largest coastal wetland complex in Los Angeles County, in December 2019 and certified the final EIR in December 2020. The project aims to enhance and establish native coastal wetlands and upland habitat on 566 of the reserve's 577 acres south of Marina del Rey and east of Playa Del Rey, restoring ecological function to currently degraded wetlands and providing a critical buffer against the effects of sea level rise. At the 20 October 2022 SMBRC Governing Board meeting, CDFW staff provided an update on the project including funding received from SCC to continue planning and design, a request for proposals to complete the design and permitting of sequences 1 and 2 of the project,

tribal engagement, and public outreach planning. In May 2023, a Los Angeles County Superior Court judge issued a ruling on the Ballona EIR litigation requiring CDFW to disclose and analyze new flood control design parameters and commit to additional environmental review if performance criteria changes. CDFW released a press release regarding the decision. CDFW decertified the EIR in September 2023 and initiated the process to revise the EIR, including releasing a Notice of Preparation in October 2023. More information on the project, an FAQ, and links to all the project documents can be found on CDFW's project website.

Ballona Reserve Community Stewardship Project – TBF, in partnership with CDFW, Friends of Ballona Wetlands (FBW), Community volunteers are conducting a project to remove invasive vegetation while broadening public involvement and stewardship at the Ballona Wetlands Ecological Reserve (Reserve), in Area B south of Culver Boulevard. During this period, TBF and FBW, continued community restoration efforts. The Year 6 Annual Report was published in October 2022.

Action #15 Enhance Populations of Rare Species

SCC continued to manage implementation of the **Reestablishment of California Red-Legged Frogs** (CRLF) Project. The project builds on an earlier effort by National Park Service (NPS) to reintroduce the CRLF to the Santa Monica Mountains and consists of actions to establish self-sustaining populations of CRLF in Santa Monica Mountain streams and to address impacts from the Woolsey Fire. During this reporting period, NPS continued surveys and translocation of egg masses and tadpole rearing and release. Due to the storms in early 2023, the egg mass surveys and translocations extended beyond March 2023 for several weeks. Tadpoles were released in mid-June 2023.

See Action #3 in support of white abalone enhancement, Action #6 in support of western snowy plover habitat enhancement.

Action #17 Implement and Study Runoff Capture Projects

SMBRC and SWRCB staff continued overseeing implementation of the following previously funded Prop 84 projects:

Culver Boulevard Realignment and Urban Stormwater Project: SMBRC staff continued to coordinate with SWRCB staff in overseeing implementation of this stormwater pollution reduction project. This project, carried out by the City of Culver City, consists of capturing and treating dry-weather runoff and storm runoff from a drainage area of 800 acres for local irrigation and using a below-ground infiltration basin to recharge groundwater. Construction was completed in May 2022. During this reporting period, the Operations and Maintenance Plan was approved and Culver City continued addressing outstanding issues that prevent the stormwater elements from being fully operational. These include cleaning debris build up and installing a channelizing berm in the outfall, a secondary irrigation line, and educational signage. SMBRC staff attended the final site visit with SWRCB staff in November 2023. The

project was extended to February 2024 allow the city to complete effectiveness monitoring in the 2023-2024 wet season.

Westwood Neighborhood Greenway Project: SMBRC staff worked with LASAN to close out the Westwood Neighborhood Greenway Project, which will clean and conserve water while providing native habitat for wildlife and opportunities for public engagement. This project aims to improve water quality by diverting and capturing runoff from 2,400 acres of drainage area into two bioswales. The project received $2.2 million in Prop 84 funds. Construction was completed in September 2020. During this reporting period, LASAN staff presented an overview of the project and lessons learned to the SMBRC Governing Board at its August 2023 meeting and continued to coordinate with SMBRC staff to close out the project.

Ladera Park Water Quality Enhancement Project: SMBRC staff continued to coordinate with SWRCB staff in overseeing implementation of the Ladera Park Water Quality Enhancement Project by the Los Angeles County Department of Public Works. This project aims to treat, store, and infiltrate runoff from a 110-acre tributary area through a combination of pre-treatment, retention, and infiltration facilities. Construction of the stormwater elements was completed in July 2021. During this reporting period, Los Angeles County inspected monitoring equipment and flow sensors, completed landscaping, and continued work on the slide gate, motor, telemetry and water harvesting system. Due to unforeseen delays, the County was unable to conduct post-construction monitoring in the 2022-2023 wet season. SMBRC staff attended the final site visit with SWRCB staff in November 2023. The project was extended to February 2024 to allow the city to complete effectiveness monitoring in the 2023-2024 wet season.

SCC continued oversee implementation of the following previously funded Prop 12 projects:

Monteith Park and View Park Green Alley Stormwater Capture: The project consists of constructing an infiltration system and recreational and aesthetic improvements at Monteith Park and at View Park alley. Stormwater will be diverted into the infiltration system and be allowed to percolate into the ground. The project will prevent potentially polluted runoff from being discharged downstream thus improving the water quality in the Ballona Creek Watershed. During this reporting period, design plans were completed in October 2022 and the construction bid was opened in December 2022. The construction bid was awarded in January 2023. Construction began in August 2023 and is anticipated to be completed by September 2024.

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. During this reporting period, work continued to develop the final

design of the project including review and revisions of the 75% design plan. The project also continued finalizing utility coordination and confirming pothole data.

Paramount Ranch Storm Flow and Sediment Reduction: The proposed project was canceled due to Woolsey Fire impacts and the Prop 12 funds were reallocated to the Topanga Lagoon Restoration Project and the Palos Verdes Restoration Reef Project.

Action #18 Install and Monitor Pumpout Facilities

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 free app is utilized for surveying. TBF staff provides technical assistance to facility managers and supports maintenance needs and equipment replacements such as nozzles and banjo valves. This collaborative approach to pumpout and dump station monitoring was conducted in partnership with San Francisco Estuary Partnership and Morro Bay National Estuary Program which yields statewide consistency. It is supported by the federal Clean Vessel Act (CVA) Education and Outreach grant administered through California State Parks Division of Boating and Waterways. Pumpout Nav's data is maintained by the monitoring agencies and app updates are developed and published regularly. During this reporting period, monitoring of pumpout units found an average 78% usability (based on analysis of equipment performance), and 99% of the pumpout units tested with biodegradable dye tablets were leak-free. Additionally, TBF and SFEP co-produced and developed a methodology related to a sewage pumpout volume study.

Action #21 Support Policies to reduce Reliance on Imported Water

The **Las Virgenes-Triunfo Pure Water Project** involves constructing a 100 gallon-per-minute, indirect potable water reuse demonstration project for reservoir augmentation that will produce up to six million gallons of local, drought resistant water supply per day, while improving in-stream habitat. The demonstration facility received $925,720 in Prop 12 funds from SCC and completed construction in September 2020. The demonstration facility is needed to test the advanced microfiltration, reverse osmosis, ultraviolet light disinfection, and oxidation components of the future Pure Water Advanced Water Treatment Facility. During this reporting period, the demonstration facility released the Year 2 Purification System Performance Report describing the testing activities carried out during the second year of operation and continued to hold events, celebrations, and in-person tours for schools and the public. A public scoping meeting was held in October 2022.

The Programmatic EIR was adopted by the Las Virgenes-Triunfo Joint Powers Authority Board and the Advanced Water Purification Facility project was invited to apply for USEPA's Water Infrastructure Finance and Innovation Act funding in December 2022. In February 2023 Las Virgenes-Triunfo released the conceptual design report, conveyance study, and equalization storage study which serve as the conceptual design documents for the Advanced Water Purification Facility. In June 2023 the project released Errata No. 2 that addresses a minor addition to the Programmatic EIR that the JPA Board of Directors certified in December 2022. Throughout the reporting period, project leads provided presentations and briefings at city councils, water districts, and water reuse conferences; published social media posts, newspaper and digital media ads, articles, and press releases in local newspapers; and released the podcast series.

Action #22 Implement Composting and Landfill Diversion Projects

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 gates. The garden continues to thrive and has monthly volunteer events to support the upkeep of planting, harvesting, and maintenance. During this reporting period, significant progress was made in revitalizing the initiative post-COVID-19 campus closures. Together with ECS, TBF rebuilt ECS Inglewood's and ECS Gardena's compost bin systems, strengthened ECS Lawndale's compost system, attended four outreach events to engage community members on the initiative and ways to participate, and co-produced three workshops. Additionally, funding from the Earth Island Institute and the Women's Earth Alliance was acquired to plant fruit trees alongside ECS campuses in parkways.

Action #27 Conduct Boater Outreach to Improve BMPs

Boater Education Program – This multi-faceted program engages the Southern California boating community to prevent boat-based ocean pollution and foster environmental stewardship. During the FY23 time period, the program co-developed and/or furthered The Changing Tide statewide newsletters, annual Southern California Tide Calendars in English and Spanish, Southern California Boater's Guides, 2022 California Clean Vessel Act Pumpout and Dump Station Performance Report, and 2022 Boater Kit Feedback Survey Report. https://dbw.parks.ca.gov/pages/28702/files/2021 Boater Kit Report.pdf.

Over 2,800 California Boater Kits were assembled and distributed, each with a fuel bib and two oil absorbents, in partnership with the California Boating Clean and Green Program. Six Dockwalker Trainings were co-hosted with State Parks and CCC with 97 Dockwalker volunteers in attendance. Outreach to nearly 100 individuals in the boating community was conducted via co-hosting several virtual webinar events with State Parks and California Coastal Commission and with one in-person outreach event in Marina del Rey. A community-based social marketing (CBSM) research project was

finalized in December 2022, and re-implemented in summer of 2023 in Marina del Rey and Long Beach to gain insights on influencing the behavior of proper sewage disposal through stationary sewage pumpout use. CBSM findings were presented at the national States Organization for Boating Access conference in August 2023. Additionally, TBF continued to manage the Pumpout Nav app via ensuring pumpout and dump station status are accurate and responding to ad hoc problems reported by Southern California boaters; added two new pumpouts to the app; contributed to and supported app development and maintenance in partnership with SFEP, specifically by obtaining the display of No Discharge Zones on the app; co-initiated a focus group research study with consultant Action Research and SFEP to determine Pumpout Nav's effectiveness for boaters, gauge its user-experience, and evaluate the utility of the educational resources provided in the app.

Action #32 Reduce Marine Debris

ReThink Disposable – In 2018, TBF partnered with Clean Water Action to bring ReThink Disposable to Los Angeles, a technical assistance program for food service businesses targeting the reduction of single-use disposable items used on-site. By implementing ReThink Disposable, quantitative results of reduced single use disposables and restaurant cost savings have been measured, documented, and utilized to further support of municipal efforts to adopt single-use disposable reduction ordinances. During this reporting period, TBF partnered with City of Los Angeles Sanitation & Environment, Clean Water Action/Clean Water Fund and APTIM to kick off and begin implementation of the City of Los Angeles' Reusable Foodware Microgrant Program. TBF carried out outreach and surveyed hundreds of food service establishments in Boyle Heights, South LA, Wilmington, and Pacoima to solicit participation. Thereafter, TBF provided technical assistance to over 30 participating businesses between August and September 2023 on reducing single-use disposables and converting to reusables for on-site dining.

Action #36 Monitor Climate Change Impacts and Ocean Acidification

2019 Palos Verdes Wirewalker Special Study: LACSD's project OA sensors to accurately collect real-time data at high-resolution, both temporally and vertically through the water column, and characterize OAH levels and variability in the upper 100m of the water column. The project commenced in May 2019 and concluded in November 2022. When functional, the system provided unparalleled visualization of oceanographic conditions on the Palos Verdes shelf. These data showed spatial-temporal variability unable to be captured by traditional mooring systems, which could allow for events such as algal blooms or plume movement to be contextualized through the water column. This was also an opportunity for LACSD staff to learn more about this technology through deployment and troubleshooting of system elements.

SMBRC Prop 50 Grant Program – SMBRC's Prop 50 grant program prioritizes projects that fulfill monitoring needs identified in the SMBNEP CMP. On 3 February 2022, the SWRCB's Division of Financial Assistance (DFA) approved seven projects for funding and one project as a standby project consistent with the SMBRC Governing Board's

recommendations. In August 2022, SMBRC staff was notified that one of the projects would not proceed and declined the award. In October 2022, DFA approved a Revised Project List reallocating the remaining funds to two existing projects. During this reporting period, two grant agreements of the six approved projects were executed: Assessment of the Nearshore Rocky Reef Resources of Santa Monica Bay (Occidental College) and Support of Comprehensive Monitoring Program Wetlands Evaluation through Monitoring and Assessment of Santa Monica Bay Estuaries (SCCWRP). The grantees developed and submitted project deliverables for SMBRC staff review including Monitoring Work Plans, draft QAPPs, and quarterly and annual progress reports. SMBRC staff continued to collaborate with DFA staff and awardees to develop grant agreements for the six approved four remaining projects with execution anticipated in early 20243. The projects will fill CMP data gaps to better understand climate change impacts in key habitats of Santa Monica Bay and its watersheds including Pelagic, Soft Bottom, Rocky Reefs, Rocky Intertidal, Sandy Shores, Coastal Wetlands, and Freshwater / Riparian.

Action #38 Monitor Rocky Intertidal Habitats

Research led by Dr. Christina Vasquez resulted in a publication titled Interactive effects of multiple stressors on the physiological performance of the invasive mussel *Mytilus galloprovincialis*. The study published in Marine Environmental Research in June 2022 (Abstract). Dr. Vasquez and her students produced this research with support from the SMBNEP via CRI and from Seaver College of Science and Engineering. The study highlights that *Mytilus galloprovincialis* is an invasive and stress tolerant mussel; little is known regarding multiple stressor responses in the species; exposure to hyposalinity followed by heat shock revealed stressor interactions; metabolic rate, clearance rate and antioxidant activity were influenced by multiple stressor response; and synergistic and antagonistic effects influence physiology. These findings help SMBNEP better understand how climate change related stressors may impact this invasive species and the habitat that it occupies.

III. SMBNEP PLANNED ACTIVITIES

This section outlines each of the FY25 Work Plan actions and next steps to be undertaken during this fiscal year in summary tables. It also highlights whether the project is new or ongoing, objectives, a description/milestone summary, lead entities, partners, long-term environmental results or outcomes, and the connection to the CWA Core Elements. As required by USEPA, a semi-annual report and annual report will provide updates on implementing each task in the FY25 Work Plan and the online database NEPORT will be used to report on habitat restored and funding leveraged in FY25. Outcomes are long-term environmental changes or benefits resulting from implementing the Work Plan actions and next steps. Additional information about each action can be found in the CCMP Action Plan along with an associated narrative.

Many of the FY25 actions are continued from previous efforts or projects. Next steps which are new for this fiscal year are identified with an asterisk in the table; all other projects or next steps should be assumed to be ongoing. Note that next steps or project activities that are part of the CCMP Action Plan but are not currently identified as part of this Work Plan are not included in the tables. That does not preclude them from being part of partner activities or as part of future work plans. Completed tasks are often closely connected to ongoing, similar projects, and/or are part of a larger project. Completed tasks from the FY24 Work Plan are identified in Appendix A.

Additional information can be found on TBF or SMBRC's websites, the CCMP Action Plan, and as part of individual products for each project. There will be updates on each of the CCMP actions included in this Work Plan as part of the April semi-annual report (April 2025) and an annual report for FY25 (October 2025). Some actions will have additional deliverables as well. In 2019, SMBNEP updated the Finance Plan, a component of the CCMP. As part of that revision, significant partner and stakeholder input was received. The table below reflects the updated partners listed for each of the actions and next steps for the FY25 Work Plan. The list of partners and lead entities is not exhaustive and may evolve over time.

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.

Clean Water Act Core Elements*: 5, 6, 7

USEPA 320: $0

Action #1 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support partners in identification and prioritization of key acquisition or conservation easement properties	SMBRC	SMMC, MRCA, NPS, State Parks, RCDSMM, CDFW	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	Communicate with partners on efforts to identify high-priority parcels for acquisition, support identification of funding sources, and acquire high-priority properties

* Per USEPA: (1) establishing water quality standards, (2) identifying polluted waters and developing plans to restore them (total maximum daily loads), (3) permitting discharges of pollutants from point sources (National Pollutant Discharge Elimination System permits), (4) addressing diffuse, nonpoint sources of pollution, (5) protecting wetlands, (6) protecting coastal waters through the National Estuary Program, and (7) protecting Large Aquatic Ecosystems.

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.

Clean Water Act Core Elements: 6

USEPA 320: $20,345

Action #2 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Implement the rocky reef/kelp forest restoration project	TBF	NOAA, MSRP trustees, NMFS, Vantuna Research Group, Commercial Sea Urchin Harvesters, CDFW, Marauder Robotics, Schmidt Marine Technology Partners, Amazon, AES	To restore three acres of rocky reef kelp forest by reducing urchin density within barrens to the target 2 urchins per square meter to allow the reestablishment of giant kelp; To inform statewide restoration and management of kelp forest/rocky reefs	Partner with fisherman and incorporate scientific volunteer divers to cull urchin densities within the urchin barrens in targeted locations; utilize robotic / AI technology to assist culling and monitoring efforts; develop partnerships and support for continued kelp restoration attaining 3 to 5 acres in FY25.
Biological response monitoring of restoration areas	TBF	VRG, CDFW, PMRG	To track the response of the kelp forest community after restoration activities occur	Conduct pre-restoration monitoring of urchin barrens and post-restoration monitoring of resulting kelp forests; complete annual community structure surveys of reference and restored sites.

Action #2 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Develop recommendations for the deposition of materials from Rindge Dam or other suitable sources to augment sediment supply	State Parks	TBF, VRG, others, CDFW	To support scientific analyses, inform priorities, and assist with site evaluations and communications for material deposition	Consider sediment deposition as part of technical studies (see Action #9). Communicate with lead agencies to provide scientific and other support, especially relating to deposition or placement of larger materials relating to reef enhancement

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.

Clean Water Act Core Elements: 6

USEPA 320: $20,057

Action #3 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Establish abalone outplanting sites and conduct juvenile and larval outplanting	TBF	NOAA, NMFS, SCMI, The Cultured Abalone Farm, NFWF Bodega Marine Lab, SWFSC, PMRG, CDFW,	To reintroduce abalone, test effectiveness of outplanting methods, and assess habitat site suitability	Conduct habitat suitability surveys for outplant sites; implement two outplant events focused on white and red abalone in established restoration areas
Monitor abalone restoration and reference sites	TBF	NOAA, NMFS, SWFSC, PMRG, CDFW	To conduct SCUBA-based surveys within outplant sites to assess the survivability of outplanted abalone and suitability of the site for future outplanting efforts	Conduct surveys to collect shells and live abalone re-encounter rates, growth data, and genetic samples of outplanted abalone; conduct wild abalone population and habitat suitability surveys along southern California mainland coast and Channel Islands (i.e., Catalina and San Clemente Islands surveys).

Action #3 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Maintain aquaculture facility for abalone	TBF	SCMI, NOAA, NMFS, CDFW, Bodega Marine Lab, Aquarium of the Pacific, Cabrillo Marine Aquarium, The Cultured Abalone Farm, MLML, SWFSC	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	Maintain and operate laboratory to house endangered white abalone and increase program wide capacity for culturing and rearing white abalone larvae and juveniles; conduct water quality testing and husbandry tasks

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.

Clean Water Act Core Elements: 6

USEPA 320: $42,976

Action #4 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Survey the extent and condition of seagrasses in the Bay using R2Deep2, side-scan sonar, and SCUBA divers to inform the Comprehensive Monitoring Program	TBF	SCC, CRI, VRG, PMRG, Scripps Institution of Oceanography, others	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	Complete annual surveys in the Malibu and Catalina Island eelgrass beds to inform the extent (area) and condition of the beds and inform condition using recommended protocols
Conduct pilot restoration project(s) of offshore eelgrass in the Bay	TBF	SCC, CRI, NOAA, CDFW, PMRG, Scripps Institution of Oceanography, others	To conduct a pilot restoration project of offshore eelgrass in the Bay within a one-acre footprint	Monitor eelgrass transplant pilot project established at three sites within SMB; seek funding to replicate methods in additional sites in SMB

Action #4 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Evaluate restoration potential of seagrasses in the Bay, harbor, wetlands, and nearshore environments	TBF	NOAA, CRI, UCLA, Scripps Institution of Oceanography, VRG	To improve understanding and probability of success for seagrass restoration projects	Conduct wave energy studies to determine effect of eelgrass restoration; collect physical oceanographic data, sediment cores and eDNA samples in transplant sites and existing eelgrass beds, develop site suitability criteria

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.

Clean Water Act Core Elements: 6

USEPA 320: $0

Action #5 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Implement rocky reef restoration project off Palos Verdes	VRG	SCMI, Vantuna Research Group, PV MSRP, NOAA, SCC, TBF, CDFW	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	Continue to annually monitor the biological community response of the Palos Verdes Reef Project, the artificial rocky reef restoration project off Bunker Point (previously funded by Prop 12)
Preliminary work regarding the benefits of dynamic revetments and nearshore reefs	VRG	TBF, CRI, others	To preliminarily advance work towards understanding dynamic revetments and nearshore reefs, including feasibility of using recycled concrete for construction	Assemble related research and initiate assessment of this approach to coastal engineering

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.

Clean Water Act Core Elements: 6

USEPA 320: $67,434

Action #6 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Continue long-term monitoring of the Santa Monica Beach Restoration Pilot Project	TBF	City of Santa Monica, State Parks, Audubon	To continue long-term monitoring to inform coastal resilience, ecosystem benefits, and adaptive management of the restoration area	Conduct physical and biological surveys annually; continue coordination with project partners and advance the planning, permitting, outreach, and implementation of an additional dune restoration site.
Conduct Phase 1 (outreach and planning) and Phase 2 (implementation) of the Malibu Living Shoreline Project	TBF	City of Malibu, LACDBH, SCC, CRI	To restore three acres of beach and dune habitat to improve coastal resilience and ecosystem benefits and improve public engagement	Continue post-restoration monitoring, site maintenance, and outreach; continue coordinating with partners and exploring opportunities for project site expansion.

Action #6 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Find funding for and implement another beach and bluff restoration project	TBF	LACDBH, City of LA, SCC, City of Manhattan Beach, City of Malibu, City of Santa Monica, CDFW, USFWS, Audubon, USC Sea Grant	To restore 3.5 acres of bluff, beach, and eelgrass habitat as part of a living shoreline pilot project (Los Angeles Living Shoreline Project); restore dune habitats in Manhattan Beach through iceplant removal and revegetation with native plants; Implement 3-5 acres of dune establishment on Santa Monica State Beach	Explore other potential sites for dune restoration; Implement Santa Monica State Beach project; advance adaptive management and restoration techniques
Support efforts to standardize sandy beach monitoring and a regional approach to restoration	TBF	Beach Ecology Coalition, CRI, SCC, Cal Sea Grant, USC Sea Grant, UCSB, SCWRP, others	To continue efforts to standardize sandy beach monitoring and data collection for southern California through stakeholder partnerships and CMP implementation	Participate in the Beach Ecology Coalition group, continue stakeholder and scientific communications, continue monitoring and data collection efforts; initiate conversations about rapid standardized beach assessment

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 Santa Monica Bay watersheds to support ecosystem services

Clean Water Act Core Elements: N/A

USEPA 320: $4,896

Action #8 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Identify partners and funding to support bluff restoration projects	TBF	PVPLC, State Parks, CDFW, City of LA, USFWS, LACDBH, many others	To establish project partners, project sites, and identify potential funding sources in support of bluff restoration	Continue to identify and coordinate with project partners, agencies, and stakeholders to prioritize project locations; identify and apply for potential funding sources for bluff restoration
Initiate Point Dume stair replacement and bluff restoration project to benefit people and wildlife	State Parks	TBD	To replace a deteriorated beach access staircase and restore bluff habitat at Point Dume State Beach	Complete restoration of native plants impacted by constructing the replacement stairs, which was completed and opened to the public in October 2022

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

Clean Water Act Core Elements: 5, 6, 7

USEPA 320: $0

Action #9 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support lead agencies in efforts to complete the design and engineering plans for the Malibu Creek Ecosystem Restoration Project	State Parks, Army Corps	TBF, RCDSMM, CDFW, CalTrout	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	Continue phase II of the project (the pre-construction, engineering and design phase) including technical studies for sediment transport analysis, surface flow modeling, develop engineering plans and specifications to 90% level of completion, logistics planning, environmental planning and permitting, and public outreach
* Support lead agencies in identifying and obtaining funding for the project	CalTrout	State Parks	Implement removal of upstream fish passage barriers upstream of Rindge Dam	Acquire funding to expedite removal of upstream barriers

CCMP Action #10

Remove additional barriers to support fish migration and ecosystem services

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.

Clean Water Act Core Elements: 2, 5, 6

USEPA 320: $0

Action #10 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Identify, prioritize, and acquire funding for barrier removal projects	RCDSMM, State Parks, NPS	CDFW, many	To engage with partner entities to identify potential opportunities for fish barrier removal	RCDSMM to conduct snorkel surveys to assess abundance and distribution of Southern California steelhead trout in Arroyo Sequit, Malibu, and Topanga Creeks and inform restoration opportunities by monitoring before and after removal of natural and human-caused barriers to fish migration; Opportunistically attend meetings and engage in conversations to advance project prioritization and funding

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.

Clean Water Act Core Elements: 2, 5, 6

USEPA 320: $0

Action #12 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Finalize restoration planning and permitting for Topanga Lagoon restoration project and initiate project	State Parks	SCC, RCDSMM, CalTrans, LACBH, CDFW	To create a restored habitat that enhances wildlife connectivity and integrates fish passage barrier removal, wetland habitat restoration, visitor services, and recreational opportunities at Topanga Lagoon (funded by Prop 12)	Continue the environmental planning process including releasing the draft EIR, reviewing comments, preparing responses, revising the EIR as needed, and preparing the final EIR certification
Complete land acquisition, feasibility analyses, and restoration design in coordination with bridge redevelopment for Trancas Lagoon	RCDSMM, LACFCD	CalTrans, Army Corps, CDFW	To restore habitats adjacent to Trancas Lagoon after CalTrans bridge expansion is completed	Participate, when possible, in a scientific advisory capacity on habitat restoration elements of RCDSMM's Trancas Lagoon project

Action #12 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Conduct comprehensive monitoring of small lagoons in northern Bay to inform CMP and seek funding to continue Malibu Lagoon monitoring	SCCWRP, SMBRC	Moss Landing Marine Labs, SWRCB, TBF, CRI, State Parks, RCDSMM	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	Implement the Prop 50-funded project to evaluate habitat extent, condition, and trends of coastal wetlands habitat and small, intermittently open estuaries within Santa Monica Bay and fill data gaps identified in the SMBNEP Comprehensive Monitoring Program (also see Action 36).

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.

Clean Water Act Core Elements: 2, 5, 6, 7

USEPA 320: $0

Action #13 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support the lead agencies by contributing technical information to the Final Environmental Impact Statement and Report and permitting	CDFW	Army Corps, LACFCD, SCC	To support the lead agencies in completing permitting and a federal environmental review document	Continue the process to revise the EIR including developing and releasing the draft revised EIR, reviewing public comments on the draft, and initiating the process to certify the revised EIR.
Support lead agencies to identify and obtain restoration, access, and interim stewardship funding	CDFW, SMBRC	SCC, TBF, LACFCD	To support lead agencies in finding funding to implement the Ballona Wetlands Restoration Project	CDFW to provide support to lead agencies to acquire funding to implement the project; SMBRC to encourage or support interim stewardship and access

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.

Clean Water Act Core Elements: N/A

USEPA 320: $0

Action #14 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support lead agencies to find funding for Phase 2 of the Liberty Canyon Wildlife Crossing project	CalTrans, MRCA	RCDSMM, Assm. Bloom, SCC, SMMC, NWF, CDFW, NPS	To implement phase 2 (Final/ 100% Design) of the Liberty Canyon Wildlife Crossing Project, also known as the Wallis Annenberg Wildlife Crossing, in support of wildlife movement and safety and enhanced habitats	Identify any additional funding needed to complete construction of the project, to be confirmed after bidding for completing the section over Agoura Road (Stage 2)
Support lead agencies in permitting and environmental review of Liberty Canyon Wildlife Crossing project	CalTrans, MRCA	RCDSMM, SCC, SMMC, NWF, CDFW	To complete implementation of the Wallis Annenberg Wildlife Crossing Project (formerly known as the Liberty Canyon Wildlife Crossing) in support of wildlife movement and safety and enhanced habitats	Continue construction of the section over the 101 freeway (Stage 1). Complete design and engineering of the section over Agoura Road (Stage 2).

Action #14 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
* Identify additional locations for wildlife crossings	NPS	SMMC, Ventura County Transportation Commission, Caltrans, NWF	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	Study wildlife movement at potential crossing points in the Conejo Pass area, evaluate current wildlife connectivity, and make recommendations for maintaining and improving connectivity such as a wildlife overcrossing or undercrossing

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.

Clean Water Act Core Elements: 2, 5, 6

USEPA 320: $2,448

Action #15 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support Southern California Steelhead Trout genetic banking study	RCDSMM	NPS, State Parks, USFWS, CDFW, others	To conduct the Southern California Steelhead Trout genetic banking study to inform population recovery	Continue to develop an action plan that identifies priority watersheds and potential tools for recovering fish during acute disturbances and restoring habitat, fish passage, and instream flows
Support restoration and monitoring activities to benefit California red legged frog populations	NPS	SCC, State Parks, RCDSMM, TBF, CDFW, USFWS	To improve riparian and stream habitats to support populations of California red legged frog	Continue working with grantees to implement the California red legged frog (*Rana draytonii)* reestablishment project (funded by Prop 12)

Action #15 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support projects within western snowy plover critical habitat	TBF	LACDBH, City of Santa Monica, City of LA, City of Malibu, USFWS, CDFW, City of Hermosa, Audubon, others	To provide habitat and ecological benefits in support of the threatened Western Snowy Plover and to restore critical habitat	Continue beach and dune restoration projects and continue to inform management actions in support of ecological benefits to the plovers

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.

Clean Water Act Core Elements: 1, 2, 4, 5, 6, 7

USEPA 320: $0

Action #16 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Continue to support implementation of projects identified in EWMPs and WMPs	SMBRC	SWRCB, municipalities, LACFCD, CDFW	To allocate and oversee State Bond funding for implementation of projects identified in EWMPs and WMPs; support implementation of projects made available under the SCWP	Continue to oversee implementation of capital projects for storm water pollution reduction through multi-benefit solutions (also see Action 17); support the Stormwater Strategy efforts led by the SWRCB.
Continue implementation of LA IRWMP	LACFCD	LVMWD, West Basin MWD	To facilitate and support coordination and allocation of IRWMP funding and implementation of projects identified in EWMPs and WMPs in the watershed	Continue to participate in the Greater Los Angeles County Region IRWM Leadership Committee, including proposed project review and selection

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.

Clean Water Act Core Elements: 2, 4, 5, 6, 7

USEPA 320: $0

Action #17 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Complete additional LID projects throughout the watershed	Municipalities	SMBRC, SWRCB, SCC, City of LA, City of Torrance, LA County, other watershed cities, LA County, NPS	To complete more LID projects throughout the watershed to improve flood protection and water quality, and provide additional benefits	Initiate Culver City's Citywide Bioretention Basin Project (received $800,000 in Prop 50 funds). Continue to implement two Prop 12 projects: Monteith Park and View Park Green Alley Stormwater Capture Project and Beach Cities Multi-Benefit Green Streets Project

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.

Clean Water Act Core Elements: 4

USEPA 320: $0

Action #18 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Continue quarterly monitoring of public sewage pumpout stations	TBF	CDBW, marina operators	To assess the condition of public sewage pumpout and dump stations	Conduct biannual monitoring (per CVA grant directive) of public sewage pumpout and dump stations in Southern California harbors
Support installation of sewage pumpouts in Marina del Rey or King Harbor	TBF	CDBW, marina operators	To provide the boating community with additional pollution prevention resources	Conduct outreach regarding the need for additional sewage pumpouts and dump stations and advocate for California CVA pumpout and dump station Installation and Operations and Maintenance grants
Support efforts of neighboring harbors in installation of bilge and sewage pumpouts in southern California	TBF	CDBW, marina operators	To provide the boating community with additional pollution prevention resources	Conduct outreach regarding the need for additional pollution prevention resources and advocate for California CVA pumpout and dump station Installation and Operations and Maintenance grants

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.

Clean Water Act Core Elements: 4, 5, 6, 7

USEPA 320: $0

Action #20 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Complete sewer connections of residential properties to the centralized wastewater treatment facility in the Malibu Civic Center area	City of Malibu	LARWQCB	To improve water quality and reduce nutrient pollution through connecting residential properties to the centralized wastewater treatment facility	Monitor and inform the SMBRC Governing Board, community members, and the general public on the progress made by the City and LARWQCB's efforts in completing the sewer connection
Continue the coordinated OWTS identification, permitting, and inspection system between the LARWQCB and the cities and counties in the watershed	LARWQCB	Municipalities	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	Monitor and inform the SMBRC Governing Board, community members, and the general public on the progress made by the LARWQCB, cities, and counties in implementation of the state-wide policy for siting design, operation, and maintenance of OWTSs

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.

Clean Water Act Core Elements: 4, 6, 7

USEPA 320: $0

Action #21 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support recycled wastewater efforts by A.K. Warren Water Resource Facility of LACSD	LACSD, MWD	LACFCD, SMBRC	To support expansion of wastewater effluent recycling by A.K. Warren Water Resource Facility of LACSD	Monitor and inform the SMBRC Governing Board membership, community members, and the general public on the progress made by A.K. Warren Water Resource Facility of LACSD in expansion of wastewater recycling through the Pure Water Southern California project. Continue testing at the demonstration facility (the Grace F. Napolitano Pure Water Southern California Innovation Center). Continue the environmental review process including release draft EIR, review comments, prepare responses, revise the EIR as needed, and prepare the certification of the Final EIR for the Metropolitan Board of Directors. The Draft EIR is anticipated to be released in late 2024 and the final EIR is

Action #21 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
				anticipated to be considered for certification in 2025.
Hyperion Treatment Plant to implement pilot project for recycled water	LASAN	LACFCD, SMBRC	To support timely completion of Hyperion's Recycled Water Program	Monitor and inform the SMBRC Governing Board membership, community members, and the public on the implementation progress of Hyperion's Recycled Water Program. Continue to implement the two pilot/demonstration projects (the Hyperion Advanced Water Purification Facility and the Membrane Bioreactor Pilot Project) that will inform the full-scale transformation of Hyperion to recycled water, complete construction and permitting, and initiate facility operation. Continue development of the Hyperion 2035 Program Implementation Plan to delineate the advanced water purification processes and design capacities, site layout, costs, schedules, construction phasing, and other details. Continue to coordinate with LADWP for development of the LADWP Master Plan which explores various recycled water alternatives for Los Angeles

Action #21 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support recycled wastewater efforts by Tapia Water Reclamation Facility and others through expansion of distribution system and regional partnerships	Las Virgenes-Triunfo JPA, SCCWRP, UCLA, City of Santa Monica	LACFCD, US Bureau of Reclamation, LVMWD, TWSD, SMBRC, many	To support expansion of recycled wastewater distribution and reuse	Complete design and initiate construction of the advanced water purification facility and conveyance elements of the Las Virgenes-Triunfo JPA's Pure Water Project

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.

Clean Water Act Core Elements: 4, 6

USEPA 320: $8,371

Action #22 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support continuation of Table to Farm compost hubs	Schools	TBF, Environmental Charter Schools, Social Justice Learning Institute, Restaurants, LA Compost, LA Food Waste Prevention & Rescue Working Group	To reduce food waste being sent to landfills, compost food waste, and apply compost to urban gardens to grow food	Support Table to Farm compost hubs at Environmental Charter Schools (ECS) in Gardena, Inglewood, and Lawndale; support Table to Farm-initiated food forests at ECS Inglewood and ECS-Gardena (middle school); support regional partners in strengthening and generating additional Los Angeles' community compost projects

Action #22 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support expansion, outreach and implementation for residential and commercial organics collection and recycling	Municipalities	TBF, CalRecycle, LA Food Waste Prevention & Rescue Working Group, LACPW	To support greenhouse gas reduction by way of residential and commercial organics recycling implementation by city and state regulatory agencies	Participate in LA Food Policy Council Food Waste Prevention Working Group; support efforts of partners and municipalities on the implementation and outreach of organics recycling to meet California's Short-Lived Climate Pollutants Law implementation targets

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.

Clean Water Act Core Elements: 7

USEPA 320: $2,095

Action #24 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Attend stakeholder meetings for local cities LCP development / updates / implementation	Municipalities	LACDBH, TBF, CRI, Heal the Bay, LARWQCB, Army Corps	To continue involvement in stakeholder meetings for local cities LCP development and 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
Opportunistically assist cities in the development of sea level rise vulnerability studies	Municipalities	USGS, TBF, CDFW, others	To identify and partner with cities to develop sea level rise vulnerability studies to strategically recommend coastal resilience strategies	Partner with cities in the development of sea level rise vulnerability studies and recommend natural living shoreline measures be included as adaptation strategies
Use data collected from beach restoration “soft-scape” projects to inform and assist LCP development	TBF	LACDBH, CRI, municipalities	To provide science-based data to inform LCP development and support beach restoration	Use data from regional beach restoration projects as case studies to inform adaptation solutions and future natural living shoreline projects

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.

Clean Water Act Core Elements: N/A

USEPA 320: $0

Action #25 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support implementation of identified actions within plans such as the LACDBH Sea Level Rise Vulnerability Assessment	LACDBH, Municipalities	SCC, City of Los Angeles, City of Manhattan Beach, State Parks, TBF, others	To implement adaptation projects that will improve coastal resilience	Develop and begin implementation of coastal adaptation projects that address sea level rise and planning efforts within climate action plans

Action #25 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Continue to advise BMPs for beaches that promote habitat condition improvements and support for unique species	LACDBH	LACDBH, Pepperdine, Beach Ecology Coalition, beach managers, Audubon, TBF, CRI, USFWS, CDFW, USC Sea Grant, Cal Sea Grant, Heal the Bay	To build upon and continue partnerships with groups and agencies to benefit beach habitat conditions	Continue partnerships and active participation with groups and agencies such as LACDBH, Audubon Society, Pepperdine, Beach Ecology Coalition, State Parks, and USFWS to implement and provide recommendations for best management practices along beaches

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.

Clean Water Act Core Elements: N/A

USEPA 320: $0

Action #26 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
* Conduct additional studies and outreach efforts to control impacts of, manage, or reduce the sale of invasive species	State Parks	USFWS, Heal the Bay, NPS, Pepperdine, RCDSMM, Environmental Restoration Group, UCLA	Address impacts of invasive species in the watershed	Participate in crayfish task force to address impacts of invasive crayfish in Santa Monica Mountains

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).

Clean Water Act Core Elements: 4

USEPA 320: $1,544

Action #27 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Produce educational materials	TBF	CCC, CDBW, SFEP	To produce educational materials to increase awareness of boating best management practices to boaters	Produce and distribute *The Changing Tide* newsletters, Southern California Tide Calendar, California Boater Kits, an interactive virtual Clean Boater Questionnaire, California Boater Kit material videos, and marine composting toilet video testimonials; distribute pumpout and dump station instruction stickers; continue to promote *Southern California Boater's Guide*, Pumpout Nav app, and informational videos (on y-valves, marine sanitation devices, marine composting toilets, and Marine Protected Areas)

Action #27 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Conduct outreach	TBF	CCC, CDBW	To conduct outreach to increase awareness of boating best management practices to boaters	Conduct direct outreach to boating community via virtual/in-person presentations and Dockwalker trainings; carry out social media campaigns leveraging CVA resources; co-host an episode of the Dockside podcast; distribute dye tablets and y-valve adapter kits to boaters and marina staff; survey marina maintenance stakeholders on sewage pumpout and dump station infrastructure challenges; research new boating community stakeholders; evaluate Community-Based Social Marketing (CBSM) 2022 and 2023 work that informs proper boat sewage disposal behavior change outreach strategies
Manage Pumpout Nav app	TBF	CDBW,	Increase proper disposal of boater sewage	Lead Pumpout Nav maintenance with app developer; serve as national facilitator and collaborate with participating states on the app's development

Action #27 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Find funding and implement fuel spill prevention tools and outreach	TBF	Fuel docks, marina operators, CCC, CDBW	To reduce fuel and oil pollution from the boating community	Educate boaters on oil spill prevention at presentation(s) and Dockwalker Trainings with partner California Boating Clean and Green Program; distribute over 2,000 of each respective oil spill prevention resource to boaters: fuel bibs, oil absorbent pillows, and oil absorbent sheets in partnership with the California Boating Clean and Green Dockwalker program; distribute oil absorbent pillows to marina and harbor facility contacts as needed
Support and develop marine debris reduction and cleanup efforts	TBF	CCC, CDFW, marina operators	To reduce fishing line marine debris from the angling community	Promote fishing line recycling facilities via the distribution of annual Southern California Tide Calendar booklets and digital do-it-yourself monofilament recycling instructions

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.

Clean Water Act Core Elements: 4, 6, 7

USEPA 320: $0

Action #28 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support IRWMP and similar programs to preferentially invest in disadvantaged communities	SMBRC, LACPW	LA County, other watershed cities	Support green infrastructure projects for IRWMP and SCWP funding in disadvantaged communities	Support and facilitate efforts to identify and develop green infrastructure projects for IRWMP and SCWP funding in disadvantaged communities by participating in IRWM and SCWP committees, including proposal review and selection of projects that benefit disadvantaged communities

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.

Clean Water Act Core Elements: 4, 6

USEPA 320: $0

Action #29 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Continue implementation and improvement of beach water quality monitoring and reporting system	SWRCB, Heal the Bay	LARWQCB, LACDPH, CRI	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	SWRCB to continue to participation in the California Water Quality Monitoring Council (CWQMC), assistance in updating and maintaining the CWQMC's Safe to Swim map and other interactive maps, and opportunistically explore ways to coordinate with other beach water quality reporting systems; Heal the Bay to continue to implement the updated grading methodology for the River Report Card, maintain the NowCast system, and publish the Beach and River Report Cards for the public

Action #29 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Maintain and enhance the existing seafood contamination education and enforcement program	EPA Superfund	FCEC partners, Heal the Bay, USEPA, SWRCB, USC Sea Grant, California Sea Grant, LACSD	Support and facilitate the continuation and enhancement of the existing seafood contamination education and enforcement program	Continue to participate in the Fish Contamination Education Collaborative and the Outreach Material Redesign Subcommittee to update the tip cards and Do Not Consume Signs on piers; FCEC to release an updated tip card with improved language on the risks when consuming contaminated fish, safer alternatives, and updated maps. Continue to participate in the Palos Verdes Shelf Technical Information Exchange Group and to develop the Feasibility Study and the Second Monitored Natural Recovery Study for the Palos Verdes Shelf Superfund Site; Provide updates to the SMBRC Governing Board regarding the deep ocean DDT contamination in the Southern California Bight including research to address management needs and the findings of the Deep Ocean DDT+ Research Needs Assessment for the Southern California Bight Report

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.

Clean Water Act Core Elements: 6

USEPA 320: $0

Action #30 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Link water conservation with outreach events and social media	TBF, others	LADWP, MWD, municipalities, TreePeople, LAUSD, Heal the Bay, others	Opportunistically incorporate water conservation topics during outreach events and on social media	Engage and educate the community and volunteers about local water conservation issues and solutions during restoration events, and TBF social media postings
Educate, engage communities, and provide resources that promote the importance of native plants	TBF, others	LADWP, MWD, municipalities, TreePeople, LAUSD, CRI, many	Promote the use of drought tolerant native plants	Educate community and volunteers on the importance of using drought tolerant native plants in habitat restoration and residential landscaping
Support efforts by water agencies to promote water conservation and reuse including dissemination of materials	LADWP, City of Santa Monica	LADWP, MWD, municipalities, TreePeople, LAUSD, many	Promote current information on water conservation and reuse efforts developed by water agencies	Share current water conservation and reuse incentives and goals developed by water agencies to promote the use of these programs and to educate the public

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.

Clean Water Act Core Elements: 4

USEPA 320: $11,898

Action #32 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Find funding for and continue ReThink Disposable LA	TBF	Clean Water Action/ Clean Water Fund, food service establishments, APTIM, City of LA/LASAN	To contribute to source reduction of single-use disposable items from food service establishments	Share results of LASAN's Reusable Foodware Microgrant Program; acquire additional funding to continue source reduction and ReThink Disposable work in the LA region

Action #32 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support municipality bans of polystyrene, non-recyclable plastics, and single-use items	Reusable LA, City of Santa Monica, LA County Chief Sustainability Office, LACPW, other municipalities	TBF, Surfrider Foundation, Heal the Bay, 5 Gyres, Algalita, OPC, NOAA, USEPA, The Ocean Cleanup, other stakeholders	To contribute to source reduction of polystyrene, non-recyclable plastics, and single use items	Participate in Reusable LA coalition and support mobilization of local and state legislation targeting single-use disposable food and beverage ware source reduction and reuse implementation; participate in and promote Plastic Free Parks citizen-science project led by 5Gyres; explore continued operation of LACFCD's Ballona Creek Trash Interceptor, a solar-powered trash collection device designed to capture floating plastic, trash and litter before they reach the ocean

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.

Clean Water Act Core Elements: 4

USEPA 320: $0

Action #34 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Improve analytical methodology and standardize monitoring of more emerging contaminants	SCCWRP	Physicians for Social Responsibility, Water Foundation	To improve availability, sensitivity, and repeatability of analytical methods for emerging contaminants to improve data quality for monitoring emerging contaminants in aquatic ecosystems	Support expanding list of contaminants monitored and monitoring reports and description of lab methods to analyze emerging contaminants

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.

Clean Water Act Core Elements: 4, 5, 6, 7

USEPA 320: $0

Action #35 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Continue to support research and monitoring efforts for HABs, especially in context of climate change and CMP implementation	SCCWRP, UCLA, UCSC, SCCOOS	CRI, JPL/NASA	To support research and monitoring efforts that fill data gaps in our region for HAB occurrences, frequencies, causes, and impacts, especially in the context of climate change	Explore emerging technologies like remote sensing and DNA technology to better understand and fill data gaps related to HABs, complete plankton HAB sampling study led by CRI.
Conduct monthly maintenance of SCCOOS shore station at Santa Monica Pier and seek support for additional sensors	SCCOOS	TBD	To collect data on oceanographic conditions in the nearshore environment and potentially inform long-term changes related to environmental factors, including climate change	Monthly maintenance of the Santa Monica Pier Shore Station.

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.

Clean Water Act Core Elements: 6, 7

USEPA 320: $4,600

Action #36 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Support inclusion of climate change impacts into CMP, especially through new models and data	TBF	TAC, CRI, CDFW, many others	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	Include in State of the Bay Report Updates with TAC and consultant; Complete necessary QAPP and/or amend existing QAPPs
Convene technical advisors to prioritize actions based on information from CMP	SMBRC, SWRCB	TBF, SCCWRP, CSU Fullerton, Occidental College, Pepperdine University, Culver City	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	Continue implementation of the six projects approved for Prop 50 funding, five of which address indicators and data gaps identified in the CMP (also see Action 40) *

* The five Prop 50 projects that address CMP indicators and data gaps received $2,419,700 collectively ($3,219,700 total for all six projects).

CCMP Action #37

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

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

Clean Water Act Core Elements: 6

USEPA 320: $0

Action #37 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Conduct ROV surveys to collect physical, chemical, and visual data	TBF	TAC, VRG	To use the ROV to conduct underwater surveys to supplement monitoring	Explore sensor integration, and deploy the ROV to collect physical, chemical, and visual data
Identify and apply emerging technology and techniques to better characterize Bay habitats, including recommendations	TBF, many	TAC, USC Sea Grant, SCMI, CRI, Blue Robotics, City of LA EMD, LACSD, CRI, SCCWRP, Marauder Robotics, CDFW, UCLA, others	To utilize cutting edge advancements in remote sensing, and remote platforms to better characterize the condition of the Bay's habitats	Contribute to the development and deployment of next gen data collection platforms to assess health of the Bay's habitats; track monitoring reports and video from LASAN outfall pipe surveys; explore nearshore bathymetry survey opportunities with ROV, side-scan sonar and other platforms.

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.

Clean Water Act Core Elements: 6

USEPA 320: $16,100

Action #38 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
* Support study recommendations and outreach efforts for improved protection	CSU Fullerton, SMBRC	UCLA, California Polytechnic Institute Pomona, MARINe, CRI	To improve understanding of rocky intertidal habitats to fill CMP data gaps and inform restoration activities	Implement the Prop 50-funded project to fill rocky intertidal habitat monitoring and assessment needs by quantifying the extent of rocky intertidal habitat in the Bay and projecting changes under sea level rise, identifying sites at risk for landslides, continuing and expanding the MARINe surveys to detect and characterize changes in rocky intertidal habitat structure over space and time, quantifying patterns of biodiversity and human activity, detecting non-native species, and characterizing intertidal temperature trends (also see Action 36). CRI to further testing of methodologies to improve quantification of responses to climate related stressors i.e., temperature and salinity, in *Mytilus galloprovincialis.*

CCMP Action #39

Monitor and inform effective management of Marine Protected Areas, 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.

Clean Water Act Core Elements: 6

USEPA 320: $1,660

Action #39 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Conduct MPA Watch to monitor and inform use of MPAs in the Bay	LA Water-keeper, Heal the Bay	LA MPA Collaborative	To implement a community-science based program to monitor activities in MPAs and encourage appropriate enforcement and regulation activities	Receive decision from the California Fish and Game Commission on whether to direct CDFW and its partners to pursue recommendations and next steps identified in the MPA Decadal Management Review. Continue participation in LA MPA Collaborative meetings and efforts to broaden awareness and increase equity and inclusion in access to MPAs. Train MPA Watch volunteers, conduct boat-based surveys, share data with local enforcement agencies, conduct outreach to the public and interested community members, and continue to conduct a new survey to contribute to the understanding of human

Action #39 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
				dimensions within and around MPAs. See Action 27 for additional MPA outreach efforts related to the boating/angling community

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.

Clean Water Act Core Elements: 4

USEPA 320: $0

Action #40 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Identify partners and identify funding sources for long-term monitoring efforts for LID and water conservation efforts	City of Santa Monica, many	LA County, municipalities, LACPW, Our Water LA Coalition	To establish project partners and identify potential funding sources in support of long-term monitoring for LID and water conservation efforts	Continue to work with project partners, agencies, and stakeholders to develop MOUs or other agreements with partners
Implement monitoring programs for long-term monitoring and to inform effectiveness of LID/BMP implementation projects	Many	SMBRC TAC, CRI, municipalities, LACPW, Our Water LA Coalition	To fill data gaps and inform LID/BMP effectiveness in reducing non-point source pollution, especially nutrient pollution	Continue to encourage the implementation of enhanced and standardized monitoring programs developed by the SMBRC TAC for all infrastructure projects funded under the SCWP; explore research opportunities or supplemental monitoring

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.

Clean Water Act Core Elements: 4

USEPA 320: $0

Action #41 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Conduct or support data collection for water quality objective development	LARWQCB	Many	To review and, as appropriate, modify and adopt water quality standards as new data and information become available or as specific needs arise	Continue phase III of the 2023-2025 Triennial Review of water quality standards in the Basin Plan, including development of projects addressing priority issues and adoption of any resulting changes to the Basin Plan as individual Basin Plan amendments

CCMP Action #42

Inform strategies to reduce greenhouse gas emissions and increase carbon sequestration in support of existing state actions and policies

Long-term Environmental Results / Outcomes: Implement and support carbon sequestration/cycle monitoring, research, and quantification as part of projects to inform or prioritize efforts.

Clean Water Act Core Elements: N/A

USEPA 320: $0

Action #42 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Conduct research to establish rate of carbon sequestration associated with key habitats in the Santa Monica Bay and its watershed	SCCWRP, UCI, UCLA, TBF	SCC, local cities, CRI, others	To conduct research to identify processes and metrics to further understand rates of carbon sequestration within key habitats in Santa Monica Bay and its watershed	Collaborate with partners and leverage restoration projects to conduct research that contributes towards understanding carbon flux, pathways, and sequestration

CCMP Action #43

Implement the County-wide SCWP 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.

Clean Water Act Core Elements: 4, 6, 7

USEPA 320: $0

Action #43 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Participate in advisory board and support implementation of projects from the new funding mechanism	LA County,	SMBRC, LACPW, LA Waterkeeper, Heal the Bay, LA County Board of Supervisors, LACFCD municipalities, NRDC	To improve stormwater management in urban areas, protect water quality within our communities, provide new sources of water for current and future generations, and reduce stormwater pollution through attainment of water quality objectives, increased stormwater retention, increased service to disadvantaged communities, and coordination of efforts across the County	SMBRC Governing Board to consider support of SCWP's infrastructure programs, technical resources programs, and scientific studies that improve water supply, water quality, and public health and provide nature-based and multi-benefit solutions throughout the watershed. SMBRC staff to participate on a SCWP Watershed Area Steering Committee including project review and selection, pending appointment confirmation. SMBRC staff to convey any recommendations to the LA County Board of Supervisors regarding SCWP funding for projects that further the CCMP Action Plan, pending SMBRC Governing Board approval. LACPW to implement recommendations from the Biennial Progress Review of the SCWP pending LA County Board of

Action #43 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
				Supervisors and LACFCD approval. LA Waterkeeper, Heal the Bay, and NRDC to continue to advocate for the water supply, water quality, equity, science, finance, and policy recommendations outlined in the SCWP Vision 2045 report.

CCMP Action #44

Support the development and implementation of a comprehensive regional sediment management plan for restoring natural hydrological functions of river systems and mitigating impacts from climate change

Long-term Environmental Results / Outcomes: Complete and implement a comprehensive regional sediment management plan to restore natural functions where possible and mitigate impacts of climate change.

Clean Water Act Core Elements: 6, 7

USEPA 320: $1,676

Action #44 Next Steps / Project Name	Lead Entities	Partners	Objectives	Description / Milestone Summary
Build capacity and conduct pilot projects to inform future actions and advance program development/design	TBF, others	USGS, CRI, USC Sea Grant, State Parks, CCC, SCC, CDFW	To utilize pilot level projects to test assumptions and develop preferred methods for sediment transport and/or placement	Initiate planning for pilot projects

SMBNEP Organizational Needs

The following SMBNEP tasks are activities to be performed in FY25 per USEPA requirements:

Reporting to USEPA

Consistent with USEPA NEP funding guidance, Commission staff and The Bay Foundation staff will develop reports on implementing the FY25 Work Plan and outlining how funds were spent in the fiscal year including a semi-annual report due in spring 2025 and an annual report due in fall 2025. Commission staff and The Bay Foundation staff will also complete annual reporting on habitat restored and funding leveraged (i.e., NEPORT) in fall 2025.

BIL Long-term Plan and Equity Strategy

In November 2021, Congress passed the BIL to invest in the nation's infrastructure and resilience. The BIL allocates $132 million to USEPA to be distributed evenly among the 28 NEPs for activities that further implementation of the CCMPs. For SMBNEP, this amounts to $909,800 annually over five years to implement the eight projects included in the FY22-23 BIL Work Plan. Each NEP must also develop a BIL Long-Term Plan describing the key activities to be pursued through all funding years (FY22-26), including an Equity Strategy detailing how the NEP will contribute to the goal of at least 40 percent of BIL funding benefits flowing to underserved communities. The BIL Long-Term Plan and Equity Strategy were approved by USEPA in September 2023, In FY25, TBF staff in collaboration with SMBRC staff will work to implement the BIL Equity Strategy; better define and engage with underserved communities, disadvantaged communities, and Black, Indigenous, and People of Color communities and identify partners, barriers, and projects that directly benefit these communities; build and maintain partnerships; and identify opportunities for future updates to the BIL Equity Strategy.

Update SMBNEP CCMP

The SMBNEP CCMP was revised in 2017 and 2018 and was formally adopted in October 2018. NEP programs are expected to undertake periodic revision and updates of their respective CCMPs to ensure that they are contemporary and relevant while supporting the identified priorities of the Management Conference. This could include integrating equity into all of the SMBNEP's work. In addition, the CCMP must be consistent with USEPA guidance. The USEPA published the NEP CCMP Revision and Update Guidelines (October 2020) providing the criteria for an update of the CCMP. The SMBNEP CCMP update will begin in FY24.

Quality Assurance Project Planning

Quality Assurance Project Planning and the specific Quality Assurance Project Plans (QAPPs) are produced to create successful environmental programs or projects. Within USEPA's Pacific Southwest Region 9 there are numerous online resources including Guidance, Templates, and Management Planning to support the development of QAPPs. Ongoing ecological restoration, coastal resilience, and environmental monitoring efforts of the SMBNEP may require QAPPs if they produce data that will be used to define the success of a given program or project. In addition, data are often generated to comply with permit requirements, assess the success of a given project, and inform adaptive management. Several QAPPs need to be developed during FY25. In FY21, a QAPP was approved for a subtidal eelgrass research and restoration project, subsequently amended in FY22. Additional QAPPs were approved in FY23 targeting Harmful Algal Blooms (HABs), additional eelgrass methods, and climate related stressors in the rocky intertidal. QAPPs are in process for sandy shores, kelp forests, and abalone.

Prioritization for these efforts will be based upon readiness and the priorities identified in the FY25 SMBNEP Work Plan. Input is being gathered in the first two quarters of 2024 to develop the final FY25 Work Plan. This period of plan development will influence the direction of the SMBNEP's efforts for FY25 including QAPP development.

IV. ESTIMATED FY25 BUDGET AND TRAVEL

This section contains the estimated and projected budget for FY25. SMBNEP's budget and Work Plan are fluid as only the USEPA annual allocation is a consistent income source. SMBNEP works with numerous partners and collaborators to develop projects and find funds and staff that support the SMBNEP and supplement the USEPA annual allocation. As a result, new projects are always in development and staffing allocations of time and budget shift frequently to meet new obligations as additional funds are secured.

The Work Plan was brought before the Policy Committee of the SMBNEP in April 2024 and may be adjusted when full funding is determined. Any adjustment will reflect the SMBNEP's and Host Entity's, The Bay Foundation, work during October 2024 to September 2025. Any such adjustments to USEPA NEP funding will be documented in an amendment to the budget and Work Plan, approved by USEPA.

Estimated Funding Authorization Summary Table, 320 Plus Match:

FY25 Funding Authorization (October 1, 2024 – September 30, 2025)	**Estimated Funds**
USEPA 320 FY25 Base Funding Plus Estimated Supplemental *	$850,000
SMBRC – Match	$315,000
The Bay Foundation – Match	$465,000
Loyola Marymount University – Match	$70,000
Estimated Funding Total	**$1,700,000**

Descriptions of Action Categories in estimated operating budget:

- **Direct Management Actions**: to support implementation of CCMP Actions #1-18, including, but not limited to restoration of kelp forests, dunes, wetlands, and other habitats. These actions also provide support for native species such as abalone, rare species, and others.
- **Governance and Policy**: to support implementation of CCMP Actions #19-25, including, but not limited to efforts to improve water treatment facilities, adopt policies, inform management actions, and support best management practices.
- **Stakeholder Education and Engagement:** to support implementation of CCMP Actions #26-32, including, but not limited to reducing marine debris, conducting community engagement and education priorities, informing and reducing health risks to people, and implementing programs such as the Boater Education Program.
- **Research and Monitoring:** to support implementation of CCMP Actions #33-42, including, but not limited to researching and informing management actions, emerging contaminants, climate change impacts, and implementing the Comprehensive Monitoring Program.

- **SMBNEP Support / CCMP Tracking:** to support the development and implementation of CCMP, through CCMP progress tracking, SMBNEP reporting, and development of SMBNEP products.

Summary Table of Estimated 320 Funds by Action Categories:

Work Plan Action Categories	**Estimated Funds ***
Direct Management Actions	$158,156
Governance and Policy	$25,132
Stakeholder Education and Engagement	$113,582
Research and Monitoring	$163,653
SMBNEP Support / CCMP Tracking	$389,477
TOTAL *	**$850,000**

* Note that the FY25 320 budget funds are estimated by action category.

Estimated Operating Budget for FY25 and Estimated Matching Funds:

Salaries (Staff time allocations):	**USEPA 320**	**Match**
Direct Management Actions	$47,216	$240,000
Governance and Policy	$14,703	$0
Stakeholder Education and Engagement	$57,376	$0
Research and Monitoring	$80,841	$0
SMBNEP Support / CCMP Tracking	$228,798	$265,000
Fringe Benefits and Taxes @ 30% (estimate)	$128,680	$0
Total Salaries and Benefits:	**$557,614**	**$505,000**

Travel:	**USEPA 320**	**Match**
Annual NEP Tech Transfer Conference (location TBD)	$4,000	$0
Annual ANEP/USEPA Meeting in Washington DC	$4,000	$0
Staff & Stakeholder Travel Expenses: year-round State and Local Travel (includes airfares, mileage, ridesharing, parking, etc.)	$3,000	$0
Total Travel:	**$11,000**	**$0**

Equipment:	**USEPA 320**	**Match**
N/A	$0	$0
Total Equipment:	**$0**	**$0**

Supplies:	**USEPA 320**	**Match**
Marine Supplies (SCUBA gear replacements)	$905	$0
Stakeholder and Engagement Supplies (outreach materials, tripod, microphone)	$0	$0
CCMP Action #22 (compost bin and community garden maintenance supplies)	$700	$0
Small Equipment (replacement of laptops, desktops, cameras, printers, and other small equipment under $5,000 each)	$6,000	$0
Program Materials (field and lab materials, gloves, shovels, etc.)	$4,000	$0
Office Supplies (printer ink, paper, flash drives, pens, etc.)	$1,500	$0
Total Supplies:	**$13,105**	**$0**

Other:	**USEPA 320**	**Match**
Marine Facilities & Maintenance (SoCal Marine institute space, berth, storage, dive locker, boat maintenance, tank fills, others)	$14,232	$0
Marine Safety (annual gear service, tank tumbles and inspections, dive insurance service, AAUS membership, and dive safety officer services, others)	$9,599	$0
Sensors/Sondes Maintenance & Upgrades (including recalibration, cleaning, repairs, and maintenance of ocean acidification sensors and watershed sondes)	$4,000	$0
Conferences & Meetings Expenses (includes conference fees, Management Conference meetings (refreshments, meals, etc., for Community Member, TAC, EC, GB, and other meetings), and other year-round conferences and meetings.	$3,580	$0
IT Services, Web Service & Maintenance, and Software (includes office software like Microsoft software, Google software, electronic signature, email distribution, cloud storage, collaboration and planning software, and others), and program software (ArcGIS, ADA compliant Adobe, Airtable, Smartwaiver, Trello, and others)	$24,000	$0
Printing & Design (printing and design for reporting, etc.)	$2,500	$0
Communications (Video conference software, Audio visual services)	$8,000	$0
Publication fees (outreach through production in scientific journals)	$2,500	$0
Loyola Marymount University (office space, laboratory space, meeting rooms, faculty and staff support)	$0	$60.000
Loyola Marymount University (CRI research support)	$0	$10,000
Waterboards Administrative Services (space, admin services, facilitators, and other support)	$0	$50,000

Other:	**USEPA 320**	**Match**
Volunteer Labor (Match)	$0	$25,000
Total Other:	**$68,411**	**$145,000**

Contracts / Studies:	**USEPA 320**	**Match**
CRI Research (Beach Characterization Studies, Seagrass Ecology Research and Conservation, Marine Invertebrate Physiology Research)	$55,000	$0
Communications Consulting (media relations and video production services)	$7,500	$0
3Lane -website maintenance	$8,640	$0
Native plant propagation (seeds and plants)	$10,860	$0
TAC (State of the Bay chapters)	$4,000	$0
Tribal engagement – consulting fees	$3,000	$0
Other Contracts (Match only)	$0	$200,000
Total Contracts / Studies:	**$89,000**	**$200,000**

Indirect @ 15%:	**USEPA 320**	**Match**
Total Indirect @ 15%:	**$110,870**	**$0**

TOTAL BUDGET	**$850,000**	**$850,000**

USEPA 320 FY25 BUDGET ESTIMATE
BUDGET SUMMARY ESTIMATE BY ACTIONS

Budget Summary	CCMP Actions Budget Summary	Subtotal	Overhead (15%)	Total
1	CCMP Action #2 Restore Kelp Forests	$17,691	$2,654	$20,345
2	CCMP Action #3 Recover Abalone Populations	$17,441	$2,616	$20,057
3	CCMP Action #4 Assess and Restore Seagrass Habitats	$37,370	$5,606	$42,976
4	CCMP Action #6 Restore Healthy Beaches	$58,638	$8,796	$67,434
5	CCMP Action #8 Restore Coastal Bluffs	$4,257	$639	$4,896
6	CCMP Action #15 Enhance Populations of Rare Species	$2,129	$319	$2,448
7	CCMP Action #22 Implement Composting and Landfill Diversion Projects	$7,279	$1,092	$8,371
8	CCMP Action #24 Include Coastal Resilience into LCP Updates	$1,822	$273	$2,095
9	CCMP Action #27 Conduct Boater Outreach to Improve BMPs	$1,343	$201	$1,544
10	CCMP Action #32 Reduce Marine Debris	$10,346	$1,552	$11,898
11	CCMP Action #36 Monitor Climate Change Impacts and Ocean Acidification	$4,000	$600	$4,600
12	CCMP Action #38 Monitor Rocky Intertidal Habitats	$14,000	$2,100	$16,100
13	CCMP Action #39 Monitor and Inform MPAs, FMPs, and Local Fisheries	$1,444	$217	$1,660

Budget Summary	CCMP Actions Budget Summary	Subtotal	Overhead (15%)	Total
14	CCMP Action #44 sediment transfer	$1,457	$219	$1,676
15	CMP- CRI Research Management	$56,521	$8,478	$65,000
16	CMP - Beaches	$40,484	$6,073	$46,557
17	CMP - Wetlands	$10,145	$1,522	$11,667
18	CMP - TAC State of The Bay	$14,255	$2,138	$16,394
19	Communications & Engagement	$87,079	$13,062	$100,141
20	Governance & Policy	$12,753	$1,913	$14,666
21	Program Development and Outreach	$72,467	$10,870	$83,337
22	Tribal Engagement	$13,417	$2,013	$15,430
23	Planning, Support, and Products	$210,022	$31,503	$241,525
24	CCMP Update	$42,769	$6,415	$49,185
	TOTAL	**$739,130**	**$110,870**	**$850,000**

Travel Documentation

With respect to participation in federal NEP activities, staff supporting the SMBNEP will continue to attend two annual meetings each year, either traveling in person or via video conferencing, and may also be involved in planning the meeting activities and/or lead technical workshops during the meetings. In addition, staff will attend regional NEP meetings, workshops and special NEP-related conferences and training and workshops when feasible. Staff may identify opportunities to make presentations at conferences and workshops to provide educational and technical assistance and share “lessons learned” with other NEPs and watershed-based organizations throughout the nation.

The FY24 travel summary table provides a summary of events and travel from the last fiscal year through March 2024. The FY25 table provides an estimate of travel for the next fiscal year.

FY24 Travel Summary Table through March 2024:

Date	Event/Trip Purpose	Location	Staff	Cost
Nov 2024	Annual NEP Tech Transfer Conference / Information sharing and technology transfer among NEPs and partners	In person meeting, Portland, OR	Tom Ford, Heather Burdick	$2,011
Apr 2024	ANEP / USEPA National Conference. Conference for NEPs, USEPA, and partner	In person meetings held at USEPA offices, Washington, DC	Tom Ford	TBD, meeting April 2024
TOTAL	**N/A**	**N/A**	**N/A**	**$2,011**

FY25 Estimated Travel Summary Table:

Date	Event/Trip Purpose	Location	Staff	Estimated Cost
Oct – Dec 2024	NEP Tech Transfer Conference / Information sharing and technology transfer among NEPs and partners.	TBD	Tom Ford, TBD	$4,000
Feb - Mar 2025	ANEP / USEPA National Conference / Conference for NEPs, USEPA, and partners.	Washington, D.C.	Tom Ford, TBD	$4,000
All Year, multiple dates	Staff & Stakeholder Meetings and conferences travel / Information sharing and technology transfer among NEPs, partners, and stakeholders.	Various CA Locations	All staff	$3,000
TOTAL	**N/A**	**N/A**	**N/A**	**$11,000**

Appendix A. Completed Projects in FY24

Abalone Cove Habitat Restoration Project

CCMP Action: 8

Long-Term Environmental Results / Outcomes: Restore 5 acres of bluff habitats in the Santa Monica Bay watersheds to support ecosystem services

CWA Core: N/A

Lead: PVPLC

Partners: SCC, TBF, City of LA, LACDBH, USFWS

Objective: To restore 13 acres of rare coastal bluff habitat to support threatened and endangered wildlife and plant species, reduce coastal erosion, improve water infiltration, and enhance public access.

Brief Project Description: In March 2023 (FY23) PVPLC completed restoration of 13 acres of rare coastal bluff habitat to support threatened and endangered species, reduce coastal erosion, and improve water infiltration in the Abalone Cove Reserve. The project implements the site's 2016 Habitat Restoration Plan and involved the public through volunteer restoration events.

Major Accomplishments: PVPLC removed invasives including acacia trees, iceplant, fennel and mustard. Goats were used to eat non-native annual grasses. The site was revegetated with native plant to provide critical habitat for the California gnatcatcher, cactus wren, El Segundo blue butterfly, and Palos Verdes blue butterfly and to facilitate the range expansion of rare plant species. The restored site consists of California coastal sage scrub and mixed coastal scrub and supports 2 special-status species: Coastal California gnatcatcher and cactus wren. Rare native plants installed at the site include Catalina rockflower, (*Crossosoma californicum)*, and island green dudleya. Sea-cliff buckwheat host plants were planted to support the federally listed and endangered El Segundo blue butterflies. Deerweed and rattlepod were planted as host plants for the Palos Verdes blue butterfly.

Key Deliverables: Updates in SMBNEP semi-annual and annual reports and reporting in annual NEPORT

Appendix B. SMBNEP Entities Staffing

SMBNEP works as a collaborative partnership staffed by The Bay Foundation (TBF) and Santa Monica Bay Restoration Commission (SMBRC) to implement the 2018 CCMP Action Plan via Annual Work Plan implementation. Both TBF staff and SMBRC staff contribute to the implementation of the Annual Work Plan and CCMP by carrying out their respective tasks and actions. The following section describes the entity affiliation(s) and key responsibilities of each staff member. Staff responsibilities subject to change based on periodic evaluations, organizational needs, professional development, and other considerations.

The Bay Foundation projected staffing as of 1 April 2024:

Title	Key Responsibilities
Chief Executive Officer	Facilitates the implementation of the CCMP and is responsible for the production of workplans and other documents to implement the CCMP. Oversees NEP budget and staffing supporting and implementing NEP activities. Serves as the director of SMBNEP and as the liaison to the USEPA for the SMBNEP. Leads and contributes to the design and implementation of projects, programs, partnerships, research, and communications to implement the actions and goals of the SMBNEP CCMP / CMP. Informs and develops strategies, policies, and priorities to support SMBNEP and the furtherance of SMBNEP's CCMP, the National NEP program, USEPA Region 9, and EPA Headquarters. Leads the diversification and enhancement of funding streams. Leads the strategic development of programs, partnerships, and projects; oversees and directs staffing with the Director of Programs; executes contracts, policies, and management practices; oversees audits; and develops, informs, and implements programs of CRI. Develops new funding opportunities.
Director of Programs	Supports the implementation of the SMBNEP through collaborations and resource allocations. Oversees program development and financial sustainability supporting TBF's mission and SMBNEP. Oversees compliance of awards and contracts. Ensures and oversees effective operations and processes, manages resources effectively, oversees performance, compliance, and policies and procedures; evaluates and oversees impact and sustainability; and supports the strategic direction and implementation of programs supporting the CCMP. Develops new funding opportunities.

Title	Key Responsibilities
CCMP Project - Manager	Manages projects in support of CCMP / CMP. Supports processes that advance the CCMP via project management, coordination, and implementation. Authors and supports the authorship of technical documents e.g., State of the Bay, Quality Assurance Project Plans, and other SMBNEP reporting needs. Develops new funding opportunities.
Environmental Engagement Program - Director	Develops mid and long-term planning of the Environmental Education Program. Develops and directs operations including communications and outreach of the organization and program activities. Directs and supports the authorship of technical documents, grant applications, and publications. Facilitates stakeholder meetings, training, and workshops. Oversees organization's social media strategy and stakeholder engagement and communications. Supports research / CRI. Develops and coordinates partnerships. Contributes to EPA reporting. Develops new funding opportunities.
Environmental Engagement Program - Project Manager	Supports Development of mid and long-term planning of the Environmental Engagement Program. Supports communications, outreach, research, and monitoring. Manages grants. Supports the authorship of technical documents, grant applications, and publications. Facilitates stakeholder meetings, training, and workshops. Supports operations, communications, and outreach of the organization. Supports research / CRI. Develops and coordinates partnerships. Contributes to EPA reporting. Develops new funding opportunities.
Environmental Engagement Program – Coordinator	Coordinates Environmental Engagement Program including communications, outreach, research, and monitoring activities. Supports data collection, quality control/assurance, and data analyses. Recruits and coordinates interns, students and/or volunteers. Supports authorship of technical documents, grant applications, community engagement, and publications. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting.
Coastal Adaptation Program - Director	Develops mid and long-term planning of the Coastal Adaptation Program. Develops and directs operations including restoration, monitoring, and research for program activities. Directs and supports the authorship of technical documents, grant applications, and publications. Supports operations, communications, and outreach of the organization. Supports research / CRI. Develops and coordinates partnerships. Contributes to EPA reporting. Develops new funding opportunities.

Title	Key Responsibilities
Coastal Adaptation Program – Coordinator	Coordinates Coastal Adaptation Program restoration, monitoring, and research activities. Supports Program Director with data collection, quality control / assurance, and data analyses. Recruits and coordinates interns, students and/or volunteers. Supports authorship of technical documents, grant applications, community engagement, and publications. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting.
Coastal Adaptation Program – Coordinator	Coordinates Coastal Adaptation Program restoration, monitoring, and research activities. Supports Program Director with data collection, quality control/assurance, and data analyses. Recruits and coordinates interns, students and / or volunteers. Supports authorship of technical documents, grant applications, community engagement, and publications. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting.
Coastal Adaptation Program – Technician	Conducts Coastal Adaptation Program restoration, monitoring and research activities. Supports Program Director with data collection, quality control / assurance, and data analyses. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting.
Coastal Adaptation Program – Technician	Conducts Coastal Adaptation Program restoration, monitoring and research activities. Supports Program Director with data collection, quality control / assurance, and data analyses. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting.
Ocean Resilience Program - Director	Develops mid and long-term planning of the Ocean Resilience Program. Develops and directs operations including restoration, monitoring, and research for program activities. Directs and supports the authorship of technical documents, grant applications, and publications. Supports operations, communications, and outreach of the organization. Supports research / CRI. Develops and coordinates partnerships. Contributes to EPA reporting. Develops new funding opportunities.

Title	Key Responsibilities
Ocean Resilience Program - Project Manager	Manages Ocean Resilience Program research and monitoring efforts, supports aquaculture facility operations, supervises SCUBA and boat based fieldwork; supports recruiting and supervising interns, students and / or volunteers. Supports the program in authorship of technical documents, grant applications, and publications. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting. Develops new funding opportunities.
Ocean Resilience Program – Coordinator	Coordinates Ocean Resilience Program restoration, monitoring, and research activities. Supports Program Director with data collection, quality control / assurance, and data analyses. Recruits and coordinates interns, students and/or volunteers. Supports authorship of technical documents, grant applications, community engagement, and publications. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting.
Ocean Resilience Program – Coordinator	Coordinates Ocean Resilience Program restoration, monitoring and research activities. Supports Program Director with data collection, quality control/assurance, and data analyses. Recruits and coordinates interns, students and/or volunteers. Supports authorship of technical documents, grant applications, community engagement, and publications. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting.
Ocean Resilience Program – Technician	Conducts SCUBA based subtidal field work. Supports data entry, quality control/assurance, permit notifications, and reporting. Recruits and coordinates scientific diver volunteers. Maintains and enhances aquatic life support systems and performs daily husbandry tasks. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting.
Ocean Resilience Program – Technician	Conducts SCUBA based subtidal field work. Supports data entry, quality control/assurance, permit notifications, and reporting. Recruits and coordinates scientific diver volunteers. Maintains and enhances aquatic life support systems and performs daily husbandry tasks. Supports research / CRI. Contributes to partnership development. Contributes to EPA reporting.

Title	Key Responsibilities
Program and Administrative Assistant	Assists TBF and SMBNEP programmatically and administratively. Informs contracting and compliance. Maintains files and databases. Plans and coordinates administrative processes. Supports financial, program, and project tracking. Supports meetings and communications. Recruits and coordinates interns, students and/or volunteers to support program activities. Conducts field work and outreach.

Santa Monica Bay Restoration Commission staff as of 1 April 2024:

Title	Key Responsibilities
Administrative Director	Coordinate and execute meetings of the Governing Board, Executive Committee, Technical Advisory Committee, and Santa Monica Bay Community Members; perform administrative functions associated with SMBRC; oversee grant management of state bond-funded projects; support and collaborate on SMBNEP efforts; coordinate with TBF and SMBNEP partners on reporting, monitoring, and implementation of the CCMP; and coordinate with TBF on SMBNEP work plan development, implementation, and progress reporting.
Environmental Scientist	Support the Administrative Director in preparing and executing SMBRC meetings and workshops; track and assist in scheduling presentations related to issues in Santa Monica Bay and its watersheds; conduct grant oversight and management for state bond-funded projects; coordinate with TBF on SMBNEP work plan development, implementation, and progress reporting; and update the SMBRC website with meeting materials and SMBNEP work plans and reports.