Santa Monica Bay National Estuary Program

Fiscal Year 2022-2027 – Equity Strategy for Bipartisan Infrastructure Law (BIL) Work Plan

June 1, 2023

SANTA MONICA BAY
NATIONAL ESTUARY PROGRAM

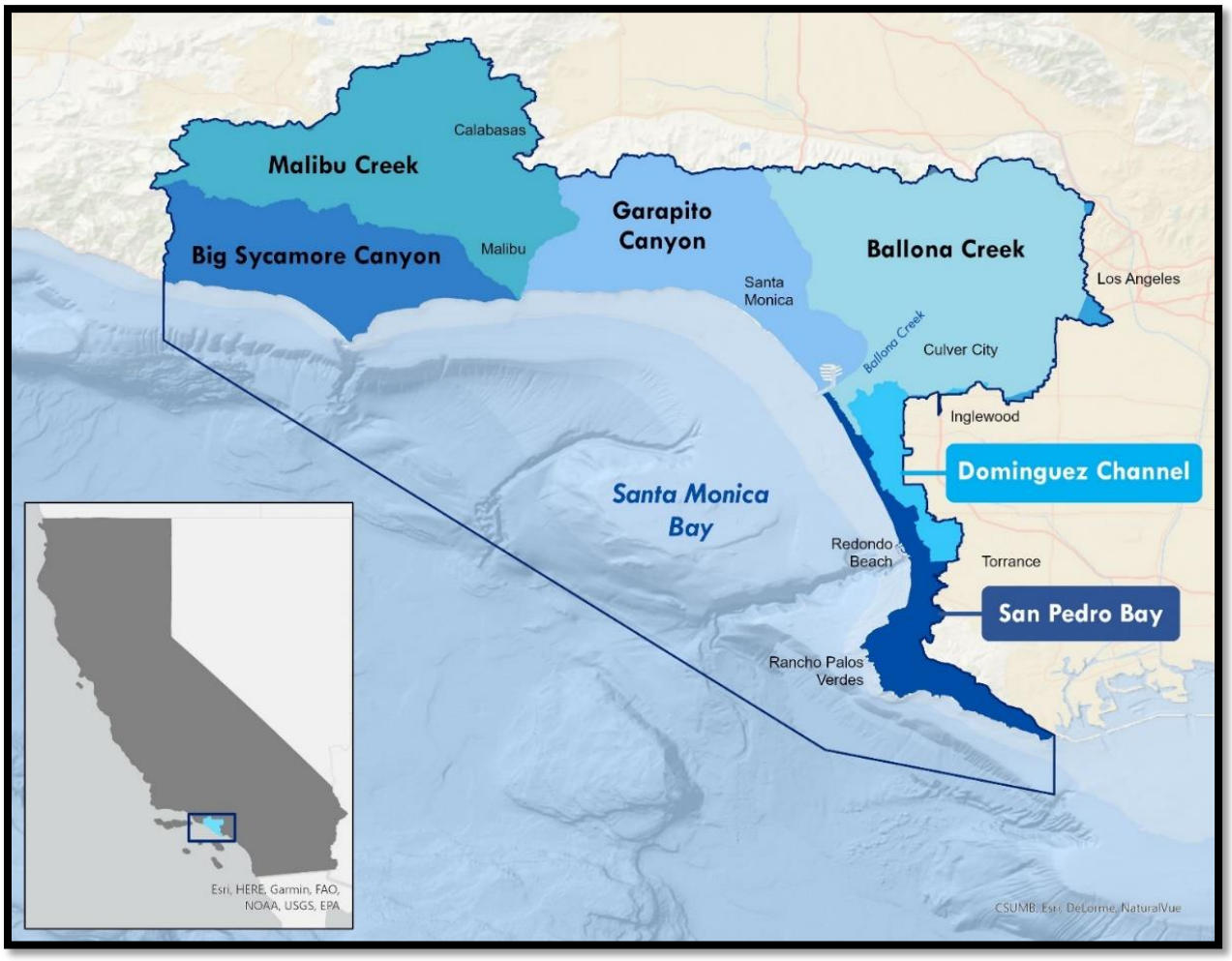
Introduction

Santa Monica Bay is a body of water off the coast of Los Angeles County, USA. The Bay extends from Malibu, south easterly, through Pacific Palisades, Santa Monica, Venice Beach, Marina del Rey, Playa del Rey, Dockweiler, Manhattan Beach, Hermosa Beach, Redondo Beach, Torrance, to the coastal bluffs and cobble beaches of the Palos Verdes Peninsula. Approximately 70 million visits are made by people to this iconic coastline annually. Swimming, surfing, boating, fishing, and SCUBA diving are year-round activities associated with the Bay and the Southern California coastal lifestyle.

Beneath the waves three submarine canyons extend to depths greater than 1,500 feet. Rocky reefs interrupt what is otherwise a submerged sandy plain. Malibu Creek and Ballona Creek are the main tributaries conveying fresh water, entering the Bay, at Malibu Lagoon State Beach and Playa Del Rey State Beach respectively. Much of the watershed that drains to Santa Monica Bay is urbanized. This urban landscape can lead to poor water quality and the loss or fragmentation of habitats, impacting the lives of thousands of species and tens of millions of people.

The Santa Monica Bay National Estuary Program (SMBNEP) was established to address a range of environmental problems facing Santa Monica Bay and its watersheds, while recognizing and balancing the needs of the local community (Section 320 of the Clean Water Act (CWA) (33 U.S.C., § 1330). This science-based, locally driven program engages the community in wide-ranging efforts to improve water quality, restore and enhance habitat, increase resilience to climate change, and provide more equitable access to coastal areas. The SMBNEP, through the actions of many partners, works to protect people and the places that comprise coastal Los Angeles County for generations to come. The focus of this enterprise is within the study area of the SMBNEP depicted in the following image.

SMBNEP Study Area



The map above delineates the SMBNEP study area. The inland line is a watershed boundary that tracks the landscape. All the water within the border of the watershed drains to the Bay or to ground water. The blue line offshore illustrates the seaward extent of the study area, incorporating all of Santa Monica Bay and the coast extending to the Los Angeles-Ventura County line in the upper left. To the lower right, the coast of the Palos Verdes Peninsula is captured. The inset in the lower left corner is a depiction of the State of California with Santa Monica Bay featured in the center of southern California coastline.

SMBNEP Governance Overview

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). The Santa Monica Bay National Estuary Program promotes collaborative watershed-based partnerships to develop and implement the 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: Santa Monica Bay Restoration Commission (SMBRC) serving as the Management Conference and The Bay Foundation (TBF) serving as the Host Entity. For further details, reference the Memorandum of Agreement between the Santa Monica Bay Restoration Commission and The Bay Foundation regarding the Santa Monica Bay National Estuary Program.

SMBNEP Program Overview

The SMBNEP is a science-based locally driven effort dedicated to protecting and restoring water quality and the ecological integrity of Santa Monica Bay and its watershed. This effort is led by a diverse partnership, a collective of local, state, and federal interests and entities to conduct and assess step-wise progress towards improved water quality, restored or enhanced habitats, increased resilience to climate change and more equitable access to coastal assets. In aggregate, the collective invests billions of dollars in SMBNEP infrastructure for the betterment of the environment and public health. The work is organized by activities identified and tracked within annual work plans, produced for a given federal fiscal year. These work plans are generated through public processes, being developed from the CCMP Action Plan and informed by the Comprehensive Monitoring Program (CMP). Thus, each annual work plan identifies activities intended to further the goals of the SMBNEP.

The SMBNEP Management Conference and stakeholders, including members of the public, identified the four priorities of SMBNEP as improving water quality, conserving, and rehabilitating natural resources, protecting the Bay's benefits and values to people, and understanding and adapting to climate change impacts. Within these four priority areas, the following seven overarching goals were identified in the CCMP Action Plan:

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; and
7. Improve monitoring and ability to assess effectiveness of management actions.

The CMP provides a framework for monitoring data to inform managers, practitioners, and the public on conditions and trends to support actions identified in the CCMP Action Plan. The CMP also describes strategies to track and detect changes or improvements, assess effectiveness of CCMP implementation, and address key data gaps across seven major habitats i.e., pelagic, soft bottom, rocky reefs, rocky intertidal, sandy shores, coastal wetlands, freshwater riparian. In addition, the SMBNEP's, most recent, FY24 Annual Work Plan incorporates the priorities identified in the USEPA's FY21-24 CWA §320 National Estuary Program Funding Guidance, FY22-26 Strategic Plan, and FY23-24 National Water Program Guidance.

In practice, the efforts associated with the SMBNEP have resulted in projects that have restored or enhanced kelp forests, beach and coastal dunes, and the Malibu Lagoon. Other projects are developing methodologies for abalone and eelgrass restoration. These project related improvements in ecosystems may result in increased fishing opportunities, wildlife viewing, research, and education. Some rehabilitation projects like those for kelp forests and beach dunes directly mitigate impacts associated with climate change e.g., ocean acidification, sea level rise, and coastal erosion. These projects may result in more accessible coastal assets and reduce impacts to private and public infrastructure associated with coastal flooding.

Other projects capture and infiltrate storm water to improve water availability and quality by increasing local water supply and reducing pollutant loading, respectively. This helps mitigate climate change impacts associated with increased storm intensity, drought, and increased temperatures. These same projects contribute to improved beach water quality benefiting beach visitorship, protecting public health, and may result in increased equitable access.

Engagement of students and interested community members is woven through much of this work via educational programs, outreach e.g., web and social media, and through active stewardship. Other projects specifically engage the boating community, and restaurants to establish acceptance and promotion of best practices that reduce pollution, improve water quality, and generate stewardship.

Bipartisan Infrastructure Law Funding Outline and Implementation Criteria

On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law (BIL). The law includes $50 billion to USEPA for water infrastructure, including $132 million in funding for the 28 NEPs to further CCMP implementation. The USEPA will evenly distribute funding among the NEPs, providing SMBNEP $909,800 annually for federal fiscal years 2022-2026 (FY22-26). On July 26, 2022, USEPA issued the National Estuary Program Bipartisan Infrastructure Law Funding Implementation Memorandum for Fiscal Years 2022-2026 ("Memorandum"). The Memorandum covers NEP BIL funding priorities, eligible uses, expectations for an Annual BIL Work Plan and a Long-Term Plan, award considerations, and reporting and tracking requirements.

The priorities for BIL funding include a core emphasis on acceleration of environmental and community restoration goals within the CCMP. Specifically, NEP BIL-funded projects should seek to:

- Accelerate and more extensively implement CCMPs;
- Ensure that at least 40% of project benefits flow to disadvantaged communities (DAC), as covered by the Justice40 Initiative;
- Build the adaptive capacity of ecosystems and communities through projects that advance climate resilience; and
- Leverage additional resources through collaboration, partnerships, and other funds as appropriate.

The BIL funds received must implement the Management Conference and USEPA approved CCMP. Each NEP is also required to develop an Annual BIL Work Plan and a Long-Term Plan. A Management Conference-approved Annual BIL Work Plan must be submitted by June 1 each year with the exception of FY22. The FY22 BIL Work Plan should be submitted within 90 days of the issuance of the Memorandum. Each NEP must also develop a separate 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% of BIL funding benefits flowing to DAC. The BIL Long-Term Plan is due June 1, 2023.

I. SMBNEP BIL Work Plan Overview

Purpose

The purpose of the five-year BIL Work Plan is to:

- Identify projects and goals to further CCMP implementation and NEP BIL priorities for BIL funding beginning in FY22 and continuing through FY26 (1 October 2021 to 30 September 2027); and
- Outline partners, outputs or deliverables, long-term outcomes, budget, and timeline of work to be implemented with FY22-23 BIL funds. BIL Work Plans for FY24-26 will be developed with updated and refined project details consistent with USEPA's submission deadlines.

SMBNEP BIL Funding Priorities

Environmental justice and addressing climate change are key USEPA priorities reflected in the first two goals of the FY22-26 USEPA Strategic Plan. The USEPA is embedding these goals in its programs, policies, and activities, including implementation of the NEP BIL funds. Specifically, the NEP BIL funds are covered under the Justice40 Initiative with a target of ensuring that at least 40% of benefits from the BIL flow to DAC. Each NEP must also develop an Equity Strategy providing their plan to meet the NEP Justice40 targets (see Bipartisan Infrastructure Law Funding).

The Project Equity Targets indicated for each project later identified in section II (and taken from "tracking benefits" in the NEP/GEO Equity Strategy Template) are the following:

1. Expanded adaptive capacity of disadvantaged communities to be resilient to climate change;
2. Improved wildlife habitat, addressed water quality challenges or prevented or reduced nonpoint source pollution affecting disadvantaged communities;
3. Increased disadvantaged communities' access to recreation; and
4. Expanded education and/or deepened engagement or representation of disadvantaged communities.

The equity targets listed herein are anticipated to correlate with soon to be released Justice40 targets by the USEPA. The four project equity targets may be fulfilled in part or in whole by any given project.

II. SMBNEP BIL Work Plan

This section describes eight projects for BIL funding beginning in FY22 and continuing through FY26 (1 October 2021 to 30 September 2027). Projects indicated as "new" are those that are not currently underway, but which further the goals and actions of the CCMP Action Plan. "Ongoing" projects are those that are continuations of current activities explicitly identified in the CCMP Action Plan. Outcomes can be thought of as long-term environmental changes or other benefits, including benefits to DAC, resulting from such efforts. Outputs and deliverables refer to work products associated with an activity or effort that are produced over a specific time period.

Each project identifies the CCMP actions and NEP BIL priorities it implements as well as the CMP indicators the project informs, where applicable. Potential project partners, anticipated timelines, and funding amounts are identified and will be further refined in future BIL Work Plans.

The total funds identified in this Work Plan for BIL expenditure are in excess of the $4,549,000 available to the SMBNEP. The estimated costs associated with the projects are $4,875,000. The $326,000 shortfall will need to be developed from other funds or changes will need to be made to approved project budgets. Annual BIL Work Plan budgets will specify costs for all projects not to exceed $4,549,000 in BIL funds.

The SMBNEP BIL Work Plan Projects Overview:

1. **Palos Verdes Kelp Restoration Project**
   Giant kelp forests strongly affect the ocean waters and the adjacent coast, locally mitigating climate change factors associated with ocean acidification, and coastal erosion from sea level rise and increased storminess. A consortium of biologists, fishermen, and academic researchers have spent over 10,000 hours SCUBA diving to restore and study the resulting kelp forest off the Los Angeles coastline. Kelp forests deliver benefits to the entirety of our coast and coastal ocean.

   Project Connection to CCMP: Action #2 Restore Kelp Forests

   Project Phase: Ongoing

   Project Goals:
   - Restore stands of giant kelp, other macroalgae, and plants to rocky reefs off the Palos Verdes Peninsula by reducing sea urchin densities. Focal areas are White Point, Point Fermin, and Underwater Arch Cove.
   - Indirectly benefit fishing and subsistence fishing in these locales through the increase in biomass of marine fishes and invertebrates.
   - Mitigate climate change related stressors on local scales by elevating pH, reducing current velocities, reducing wave energy, and providing drift kelp and wrack to other coastal areas.
   - Inform global coastal management efforts.

   Project Equity Benefit Flow Targets:
   1. Expanded adaptive capacity of disadvantaged communities to be resilient to climate change; and
   2. Improved wildlife habitat, addressed water quality challenges or prevented or reduced nonpoint source pollution affecting disadvantaged communities.

   Meeting Equity Benefit Flow Targets – Strengths and Challenges:
   - Strengths - Indirectly benefit fishing and subsistence fishing in these locales through the increase in biomass of marine fishes and invertebrates.
   - Challenges - The habitat restoration sites are remote, offshore and subtidal, therefore limited to general public access.

2. Palos Verdes Abalone Restoration Project

Seven species of abalone, black, white, pink, red, pinto, flat, and green persist in Southern California despite precipitous declines due to overharvest, disease, and other factors. Abalone are ecosystem engineers that compete for food and space with sea urchins and other benthic life forms. When present in significant numbers the reefs they inhabit are more diverse, support less sediment and resultantly lead to improved water quality. Actively outplanting abalone to the rocky reefs off Palos Verdes will aid in long-term resilience of our kelp forest-rocky reef systems.

Project Connection to CCMP: Action #3 Recover Abalone Populations

Project Phase: Ongoing

Project Goals:

- Restore populations of red and white abalone to the Palos Verdes Peninsula.
- Generate thousands of viable abalone for outplant.
- Maintain and provide excellent captive environments for the growth and development of the abalone.
- Establish and maintain needed infrastructure, on the sea floor, to transition the abalone to life in the wild.

Project Equity Benefit Flow Targets:

1. Expanded adaptive capacity of disadvantaged communities to be resilient to climate change; and
2. Improved wildlife habitat, addressed water quality challenges or prevented or reduced nonpoint source pollution affecting disadvantaged communities.

Meeting Equity Benefit Flow Targets – Strengths and Challenges:

- Strengths - Expanded adaptive capacity of DAC to be resilient to climate change; and improved wildlife habitat, addressed water quality challenges or prevented or reduced nonpoint source pollution affecting DAC.
- Challenges - The habitat restoration sites are remote, offshore and subtidal, therefore limited to general public access.

3. Santa Monica Breakwater Rocky Intertidal Preserve

This program would provide protection for the Santa Monica Pier and coastal infrastructure from sea level rise, storm events and creates an adaptable intertidal system and neighboring subtidal habitat. Results of these efforts will help inform the creation of living breakwaters along other exposed sections of the southern California coastline.

Project Connection to CCMP: Actions #5 – Assess and Implement Offshore Artificial Reefs; #38 – Monitor Rocky Intertidal Habitats

Project Phase: New

Project Goals:

- Provide conservation for rocky intertidal organisms from current stressors related to trampling and picking (overexploitation).
- Provide current and ongoing protection to rocky intertidal organisms from climate change related stressors i.e., warmer temperatures, warmer water, increasing storminess, and sea level rise.
- Increase extent of rocky intertidal habitat in Santa Monica Bay.
- Increase the height and structure of the breakwater to better protect nearshore resources e.g., the Pier, parking lots, lifeguard headquarters, Muscle Beach, volleyball courts, sandy beach, restaurants, amusement park, fishing decks, and public aquarium.
- Develop an adaptable intertidal landscape/platform for monitoring, experimentation, research, and education.

Project Equity Benefit Flow Targets:

1. Expanded adaptive capacity of disadvantaged communities to be resilient to climate change;
2. Improved wildlife habitat, addressed water quality challenges or prevented or reduced nonpoint source pollution affecting disadvantaged communities.
3. Increased disadvantaged communities' access to recreation; and
4. Expanded education and/or deepened engagement or representation of disadvantaged communities.

Meeting Equity Benefit Flow Targets – Strengths and Challenges:

- Strengths - Expanded adaptive capacity of DAC to be resilient to climate change; and improved wildlife habitat, potential to address water quality challenges affecting DAC. The augmentation of the breakwater will prolong the pier infrastructure, e.g., less damage from waves. In addition, the project will enhance rocky reef and rocky intertidal habitats associated with the breakwater and neighboring environment increasing biological production and diversity. These results will benefit DAC, visitors, and anglers.
- Challenges - The project is in early planning stages. Therefore, the timeline for completion and the final project form are not fully developed.

4. Venice - Marina del Rey - Playa del Rey Foredune Beach Restoration Project

Foredune projects serve to create small dunes using native vegetation, increasing the ability of the project site to retain sand, captured by the leaves, branches and roots of the plants. These living shorelines benefit wildlife and enhance the visitor experience while forming a beach ecosystem that is resistant to erosion and sea level rise. The sites proposed in this project are some of the more vulnerable to sea level rise and erosion based upon widely applied models for coastal flooding. This adaptation to rising sea levels and stormier oceans will protect key infrastructure for visitor access and adjacent commercial and residential properties.

Project Connection to CCMP: Action #6 – Restore Healthy Beaches

Project Phase: New

Project Goals:

- Work with community members to determine potential sites.
- Conduct pre-restoration surveys.
- Install post and rope / sand fencing.
- Seed the area to grow an assemblage of native foredune plants.
- Monitor the site post restoration to quantify the changes and presence of species of interest.
- Inform adaptive management.
- Create and implement an educational program.

Project Equity Benefit Flow Targets:

1. Expanded adaptive capacity of disadvantaged communities to be resilient to climate change;
2. Improved wildlife habitat, addressed water quality challenges or prevented or reduced nonpoint source pollution affecting disadvantaged communities.
3. Increased disadvantaged communities' access to recreation; and
4. Expanded education and/or deepened engagement or representation of disadvantaged communities.

Meeting Equity Benefit Flow Targets – Strengths and Challenges:

- Strengths- Expanded adaptive capacity of DAC to be resilient to climate change; and improved wildlife habitat, access, and reduced risk for flooding and beach sand loss affecting DAC.
- Challenges – Finalization of the specific site or sites for the project are yet to be informed by public outreach and furtherance of project design. This affects the certainty of the final scope of the project.

5. Adamson House Living Shoreline Project

This proposed project would implement and construct a "living shoreline" along Malibu Lagoon State Beach and the Adamson House, using drift logs, cobble and sand that is native to the Santa Monica mountains and found on site. The goal of this project is to address both fluvial and coastal erosion, protect cultural resources, enhance coastal recreation, and buy time for the next crucial phase of adaptation planning (removing Rindge Dam to restore natural sediment transport).

Project Connection to CCMP: Actions #6 – Restore Healthy Beaches; #12 – Restore Small Coastal Lagoons

Project Phase: New

Project Goals:

- Design and install a dynamic cobble berm and associated tree sections to provide resiliency to Surfrider beach and the back beach area abutting the Adamson House property.
- Monitor and inform the installation over several years to understand the changes resulting from the creation of the berm and its features.

- Conduct outreach to the public, interested groups and stakeholders to establish a regional appreciation for cobble berms as an adaptation to sea level rise, coastal erosion, and coastal flooding.

Project Equity Benefit Flow Targets:

1. Expanded adaptive capacity of disadvantaged communities to be resilient to climate change;
2. Improved wildlife habitat, addressed water quality challenges or prevented or reduced nonpoint source pollution affecting disadvantaged communities.
3. Increased disadvantaged communities' access to recreation.

Meeting Equity Benefit Flow Targets – Strengths and Challenges:

- Strengths – Expanded adaptive capacity of DAC to be resilient to climate change; and improved wildlife habitat, access, and reduced risk for flooding and beach sand loss affecting DAC.
- Challenges – The site of this proposed project is under stress due to coastal erosion and the access to the location is nuanced due to its proximity to Malibu lagoon, the surf zone, and the Adamson house.

6. Beach Management Certification Project

The direct and indirect impacts of agency beach management practices can result in deleterious effects to coastal ecosystems. Heavy equipment is often used to manage beaches in southern California, and beyond, to enhance the visitor experience and protect coastal infrastructure. This project will provide web-based materials, training modules, and testimonials to inform current and prospective beach managers and practitioners to identify, understand and operate in an ecologically contextual approach to coastal management.

Project Connection to CCMP: Actions #6 – Restore Healthy Beaches; #25 – Support BMPs, Public Access, and Improved Trail Systems

Project Phase: New

Project Goals:

- Capture and catalyze the work of the Beach Ecology Coalition to generate an online interactive certification program to promote ecologically and climatologically appropriate approaches to beach and coastal management.

Project Equity Benefit Flow Targets:

2. Improved wildlife habitat, addressed water quality challenges or prevented or reduced nonpoint source pollution affecting disadvantaged communities.

Meeting Equity Benefit Flow Targets – Strengths and Challenges:

- Strengths – The prospect for long-term success in addressing beach sand loss and protecting habitats through partner agency training is promising in that a few select agencies, if brought on to a comprehensive training program for staff will have a significant impact.

- Challenges – Voluntary training is less likely to be integrated. Raising the status of the training to mandatory and integrating the training into partner agency training management software systems will be key program elements to overcome.

7. Black Surfers Collective (BSC): Diversity in the Line-Up

The programs and services provided by the BSC directly remove barriers that limit beach visitorship for DAC members. Through their network of partners BSC supports swim lessons, water safety, and cultural and environmental awareness. BSC acknowledges, by leveraging swim lessons for families to swim together and by providing transportation in the neighborhoods where our target demographic resides, we create an atmosphere of safe, fun, water exploration. With this newly founded appreciation for water-based recreation we are leveling the playing field for future generations of stewards willing to protect what they have come to love and feel welcome in coastal settings.

Project Connection to CCMP: Actions #25 – Support BMPs, Public Access, and Improved Trail Systems; #28 – Support Disadvantaged Communities

Project Phase: New

Project Goals:

- Remove barriers to coastal access for disadvantaged community members by providing, swim, surf lessons, and transportation.
- Develop and implement environmental and cultural awareness for surfing BIPOC community.
- Advance fulfillment of goals of the California Coastal Act.

Project Equity Benefit Flow Targets:

1. Expanded adaptive capacity of disadvantaged communities to be resilient to climate change;
3. Increased disadvantaged communities' access to recreation; and
4. Expanded education and/or deepened engagement or representation of disadvantaged communities.

Meeting Equity Benefit Flow Targets – Strengths and Challenges:

- Strengths - Expanded adaptive capacity of DAC to be resilient to climate change, increased DACs' access to recreation, and expanded education and/or deepened engagement or representation of DAC.
- Challenges - The Black Surfers Collective is in the process of formally organizing to allow for contractable services.

8. Coastal Access and Beach Visitor User Data Study

Local, regional, state, and federal managers will better understand public beach use by disadvantaged and underrepresented communities and the barriers and constraints that prevent full access to develop equitable coastal beach access programs, projects, sites, and facilities through studying how individuals use the SMBNEP with the use of

mobile device user studies. TBF, working with several local and regional partners, including Los Angeles County Department of Beaches and Harbors, the Mountains Restoration and Conservation Authority (MRCA), CSUCI, and the Beach Erosion Authority for Clean Oceans and Nourishment (BEACON), and other cooperating agency partners, have initiated efforts to collect contemporary data on beach use which can fill an important data and research gap, focusing on cell phone location data.

Project Connection to CCMP: Actions #25 –Support BMPs, Public Access, and Improved Trail Systems; #28 – Support Disadvantaged Communities

Project Phase: New

Project Goals:

- Acquire multi-year cell phone location data sets, capturing the coastline of Los Angeles County.
- Analyze data illustrating barriers and constraints to full coastal access.
- Design and refine information dissemination pathway(s) i.e., public interface dashboard, to facilitate community planning and support investment.

Project Equity Benefit Flow Targets:

3. Increased disadvantaged communities' access to recreation; and
4. Expanded education and/or deepened engagement or representation of disadvantaged communities.

Meeting Equity Benefit Flow Targets – Strengths and Challenges:

- Strengths - the study will identify specifically which populations use the resource by identifying which census tracts users originate from and where they access the study area. If predefined DAC census tracts have users that show up in the study the information can be used to identify equity flow and shape a strategy to enhance our equity response.
- Challenges - The sample size of the data set proposed is so large as to place restrictions on options for processing, reporting and display of the findings.

Key Activities for BIL Work Plan Implementation:

The following key activities will be employed in the implementation of the BIL Work Plan projects. Budgeting for the key activities within applicable projects will serve as indicators for numeric funding targets for equity by offering more accurate projections and actuals. The key activities are the following:

1. **Recreational Access** - each project is focused to place recreational uses as a high priority for public access.
2. **Climate Resiliency** - helping coastal communities increase their capacity to respond to changing shoreline, provide information and tools to assess vulnerabilities and begin to plan for nature-based adaptation in urban coastal communities.

3. **Habitat Restoration** - the restoration of habitats such as beaches, dunes, wetlands, and kelp forests promote climate resilience and protect recreational opportunities and access; the process includes the development of communication strategies to identify barriers facing DAC to achieve healthy habitats.
4. **Infrastructure** - projects include infrastructure promoting resilience, access, water quality, and pollution reductions.
5. **Engagement, Outreach, and Education** - targeted engagement, education and training, consultations, collaborations, public workshops, solicitation of stakeholder feedback, public meetings, water safety and environmental awareness, tours, public documents, social media outreach, and developing project web content and platforms.
6. **Pollution Reduction** - activities to raise awareness, improve water quality, reduce trash and debris.
7. **Carbon Reductions** - activities to lower greenhouse gas emissions, reduce climate change and promote climate resilience; and protect recreational access.
8. **Increasing Local Water Supplies** - project support for increasing local water supplies mitigates against community pressures from demand, drought and water quality impacts.
9. **Watershed-based Partnerships** - protecting recreational access by reducing water pollution, increasing habitat health and functionality for anglers and local economy/tourism.

III. Numeric Funding Targets for Equity

BIL Work Plan Budget: Estimated Benefit Flow to Disadvantaged Communities by Percentage

The following table identifies ambitious yet realistic expectations of BIL investments that direct 40% or more of the funding benefit flow to DAC, advance the CCMP of the SMBNEP, and promote visitor access and climate resilience. Four of eight BIL projects are expected to produce these benefits through the protection of the Santa Monica Pier and the Adamson House from increased storm events, sea level rise, and coastal erosion. The Black Surfer Collective is an effort to lower socioeconomic and cultural barriers for DAC to access coastal recreation. The Coastal Access and Beach Visitor User Data Study will utilize spatially specific cell phone data to characterize coastal visitorship along the coast of Santa Monica Bay. The results of this study will play a central role in establishing the distribution of benefits flowing from these investments.

BIL Work Plan Budget: Estimated Benefit Flow to Disadvantaged Communities by Percentage

	Year	BIL Work Plan Project	Key Activities *	Project Equity Targets **	Project Funding Flowing to DAC ($)	Total Project Funding ($) ***	% Project Investment Flowing to DAC
1	**2022-2025**	Palos Verdes Kelp Restoration Project	1, 2, 3, 6, 7	1, 2	0	500,000	0.00%
2	**2022-2026**	Palos Verdes Abalone Restoration Project	1, 3, 6	1, 2	0	300,000	0.00%
3	**2022-2027**	Santa Monica Breakwater Rocky Intertidal Preserve	1, 2, 3, 4, 5, 7, 9	1, 2, 3, 4	700,000	1,400,000	50%[1]
4	**2022-2026**	Venice – Marina del Rey – Playa del Rey Foredune Beach Restoration Project	1, 2, 3, 4, 5, 9	1, 2, 3, 4	0	350,000	0.00%
5	**2022-2025**	Adamson House Living Shoreline Project	1, 2, 3, 4, 5, 7, 9	1, 2, 3	675,000	750,000	90%[2]
6	**2023-2026**	Beach Management Certification Project	1, 2, 3, 7, 5, 9	2	0	175,000	0.00%
7	**2022-2026**	Black Surfers Collective	1, 2, 5, 6, 7, 9	1, 3, 4	900,000	1,000,000	90%[3]
8	**2022-2024**	Coastal Access and Beach Visitor User Data Study	1, 2, 5, 7, 9	3, 4	360,000	400,000	90%[4]
				Total:	**2,635,000**	**4,875,000**	**54%**

[1] The Santa Monica Breakwater Rocking Intertidal Preserve is considered critical infrastructure providing resiliency and long-term protection for the Santa Monica Pier from climate related sea level rise and wave events. The augmentation of the breakwater will prolong the pier infrastructure e.g., less damage from waves. In addition, the project will enhance rocky reef and rocky intertidal habitats associated with the breakwater and neighboring environment increasing biological production and diversity. These results will benefit DAC communities, visitors, and anglers.

[2] The Adamson House at Malibu State Beach is listed on the National Register of Historic Places (NRHP) and designated as a California State Historical Landmark No. 966. The property is situated upon the separately listed NRHP ethnographic Chumash village of Humaliwo. The Adamson House Living Shoreline Project seeks to bolster the existing seawall to protect against loss of portions of the estate, exposure of archaeological midden deposits and underlying infrastructure, and addresses degraded ecosystem services in the greater area. The project will directly benefit access and Tribal communities.

[3] The Black Surfers Collective has established a comprehensive programming template for engaging DAC youth with multitudes of opportunities to build skills, understanding, access, and a sense of connection to local natural resources. This effort is made through direct benefit investments in the community at swim centers, community centers, visits to the beach, and surf lessons, with a host of partners.

[4] The Coastal Access and Beach Visitor User Data Study is a vital program level project for collecting actual usage data for the coastal portion of the SMBNEP study area. The data is then transposed onto existing census tract data from the CalEnviroScreen tool to identify specifically from which census tracts visitors originate and where in the study area they spend time. For the immediate and foreseeable future the study will promote understanding of equity flow and limit speculation as to how to identify and/or assign resources to places used by persons living in DAC census tracts.

***** The key activities are listed numerically with descriptions on page 7 of this document: 1. recreational access, 2. climate resiliency, 3. habitat restoration, 4. infrastructure, 5. engagement, outreach, and education, 6. pollution reduction, 7. carbon reductions, 8. increasing local water supplies, 9. watershed-based partnerships.

**The Project Equity Targets, placeholders for the pending Justice40 targets: 1. expanded adaptive capacity of DAC to be resilient to climate change; 2. improved wildlife habitat, addressed water quality challenges or prevented or reduced nonpoint source pollution affecting DAC; 3. increased DACs' access to recreation; and 4. expanded education and/or deepened engagement or representation of DAC.

***The project-based funds indicated only show BIL Funds (budgeted monies) and may not reflect the full budget for each project.

BIL Work Plan Budget: Estimated Benefit Flow Strengths and Challenges

SMBNEP programming has always been informed by and developed for the benefit of our local communities. Many of these communities, now recognized as DAC, have been supported by past efforts. Though laudable, these efforts often fall short of addressing the historic and ongoing lack of investment needed to mitigate the environmental harms disproportionately borne by these communities. These long-standing relationships and priorities are strengths enabling SMBNEP to achieve the aggressive yet reasonable targets in the BIL Work Plan. The composition of the SMBNEP Management Conference has representatives encompassing DAC and partnering in the implementation of aspects of the BIL Work Plan constituting another strength of this effort. Projects supported by the BIL Work Plan have been in development, or in existence preceding the availability of BIL funds. Thus, the projects are mature in many aspects that will enable their timely start and completion. This 'head-start', in a manner of speaking, is another strength for the Work Plan. Furthermore, many of the Actions identified in the SMBNEP CCMP are intended to benefit coastal resilience and DAC. The funds supporting this BIL Work Plan will advance these efforts, clearly a strength addressing the long-standing challenge of insufficient funds for projects that will both benefit DAC and coastal resilience.

Notably, the BIL Work Plan focuses on improving the capacity of the SMBNEP to demonstrate the estimated flow of benefits to DAC via the Coastal Access and Beach Visitor User Data Study. Analysis of these data will be able to describe patterns of visitation from DAC to specific coastal locales. The application of these data to BIL Work Plan projects will form an estimate of benefit flow to DAC. No other spatially explicit data set exists to serve this function and it is a cornerstone of the SMBNEP Equity Strategy. The Coastal Access and Beach Visitor User Data Study addresses the challenge of understanding DAC use of coastal resources within the SMBNEP study area. If successful, the results of this project can be used to further equitable investment in coastal resilience for coastal Los Angeles County.

A subset of the eight projects in the BIL Work Plan are being identified to provide an estimated flow of benefits to DAC. This approach acknowledges the challenge to estimate the flow of DAC use of these investments. The Palos Verdes Kelp and Abalone Restoration Projects are a good example. Defining direct use of the resources supported by these efforts coupled with flow to DAC would require a great deal of investment detracting from limited resources. Thus, the four projects identified to estimate flow of benefits are likely to benefit DAC and can be quantified through the application of the aforementioned Coastal Access and Beach Visitor User Data Study. (SMBNEP includes that study as one that provides benefit flow to DAC. As the data won't be exclusive to DAC but will encompass all visitors 90% of the investment is being assigned to DAC benefit flow.)

This same logic is being applied to the Adamson House Living Shoreline Project and the Black Surfers Collective. These projects directly address Project Equity Targets, but the benefits of the work are not exclusive to DAC. Therefore, the SMBNEP Equity Strategy limits the investment in the estimated benefit flow to DAC to 90% for each of these projects. There are challenges to the implementation of the Adamson House Project in that it intends to use living shoreline methods in a very constrained section of the coast to protect cultural resources. The investment in planning and public outreach may modify aspects of the project, leading to some uncertainty. Resultingly, SMBNEP identifies this as a challenge.

The Black Surfers Collective is in the early stages of formalizing aspects of their organization, in part to successfully utilize the funds identified in BIL Work Plan for their program. This encumbers some uncertainty to the timing of implementation of the scope for the Black Surfers Collective, this is a challenge for this project.

The Santa Monica Breakwater Rocky Intertidal Preserve is an innovative project intended to provide multiple benefits to visitors of the Santa Monica Pier and neighboring environs. It also is intended to provide ecological lift and increased resilience to rocky intertidal features of the Santa Monica Pier Breakwater not considered at the time of its construction. Importantly, much needs to be studied to better characterize the existing physical, chemical, and biological condition of the Breakwater and its interaction with coastal processes e.g., wind, waves, currents. The ultimate goal for this project would be the direct enhancement of the Breakwater.

The BIL Work Plan is investing in the data collection and environmental planning needed to direct any resulting construction or physical changes to the Breakwater. Until data collection and analysis are complete any clear course of action is limited to concepts only, this is a challenge for this project. Another challenge facing the ultimate goal of the project is managing a possible construction window in concert with events associated with the Los Angeles Olympics in 2028. That stated, the investment in the BIL Work Plan is directed precisely at addressing these challenges by gathering the information needed for outreach, engineering, permitting, and construction. As there are multiple benefits to the Santa Monica Breakwater Intertidal Preserve, ascribing the full investment as an estimated flow to DAC is imprudent. For this reason, the SMBNEP benefit flow to DAC is estimated to be 50%.

BIL Work Plan Budget: Baseline Analysis of Disadvantaged Communities

The USEPA calculated Justice40 baseline information for all NEPs using existing NEPORT data - a consistent methodology across the national program. This baseline analysis assesses the number and percent of recent pre-BIL funded projects that benefit DAC. These data will serve as a baseline for evaluating pending BIL investments and benefits flowing to DAC. SMBNEP's baseline is as follows:

BIL Work Plan Budget: Baseline Analysis - Santa Monica Bay National Estuary Program

Year	# of Habitat Projects in DAC	Total Habitat Projects	% of Habitat Projects in DAC	Section 320 Funds Invested in DAC through Habitat Projects ($)	Total Section 320 Funds Used in Habitat Projects ($)	% of Section 320 Funds Invested in DAC through Habitat Projects	Habitat Project Costs Invested in DAC ($)	Total Habitat Project Costs ($)	% of Habitat Project Costs Invested in DAC
2017	0	7	0.00%	0	70,000	0.00%	0	7,636,192	0.00%
2018	0	6	0.00%	0	70,000	0.00%	0	20,579,999	0.00%
2019	0	5	0.00%	0	706	0.00%	0	2,767,678	0.00%
2020	0	4	0.00%	0	0	0.00%	0	3,816,222	0.00%
2021	0	5	0.00%	0	0	0.00%	0	9,921,541	0.00%
Total	**0**	**27**	**0.00%**	**0**	**140,706**	**0.00%**	**0**	**44,721,632**	**0.00%**

IV. Identifying Disadvantaged Communities for Equity Strategy

Title VI of the Civil Rights Act and USEPA's nondiscrimination regulations prohibit recipients of USEPA financial assistance from taking actions in their programs or activities that are intentionally discriminatory and/or have a discriminatory effect based on race, color, national origin (including limited English proficiency), age, disability, or sex. All funding under the BIL should ensure compliance with civil rights laws.

Equity Screening Tool: CalEPA SB 535 CalEnviroScreen Disadvantaged Communities

The CalEnviroScreen SB 535 Disadvantaged Communities List (2022 Update) is a mapping tool developed by the California Office of Environmental Health Hazard Assessment (OEHHA) on behalf of CalEPA that analyzes data on environmental, public health and socioeconomic conditions in California's census tracts to provide a clear picture of cumulative pollution burdens and vulnerabilities in communities throughout the state. It has become a national standard for geospatial data tools capable of driving more equitable decision-making. The State of California specific CalEnviroScreen will be used as the source of data to identify DAC for this project. The CalEnviroScreen index is based upon a similar set of environmental & socioeconomic indicators to the federal USEPA EJScreen tool. Assigned values to census tracts produce a geographical representation of DAC, but with added indicators. CalEnviroScreen indicators fall into four broad groups—exposures, environmental effects, sensitive populations, and socioeconomic factors. An indicator is a measure of either environmental conditions, in the case of **pollution burden** indicators, or health and vulnerability factors for **population characteristic** indicators. The four indicator groups are the following:

1. **Pollution Burden - Exposure** indicators are based on measurements of different types of pollution that people may come into contact with.
2. **Pollution Burden - Environmental Effects** indicators are based on the locations of toxic chemicals in or near communities.
3. **Population Characteristics - Sensitive Population** indicators measure the number of people in a community who may be more severely affected by pollution because of their age or health.
4. **Population Characteristics – Socio-economic Factor** indicators are conditions that may increase people's stress or make healthy living difficult and cause them to be more sensitive to pollution's effects.

CalEPA generally defines communities in terms of census tracts and identifies four types of geographic areas as disadvantaged:

1. Census tracts receiving the highest 25 percent of overall scores in CalEnviroScreen 4.0;
2. Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps, but receiving the highest 5 percent of CalEnviroScreen 4.0 cumulative pollution burden scores;
3. Census tracts identified in the 2017 DAC designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; and
4. Areas under the control of federally recognized Tribes.

The CalEnviroScreen SB 535 Disadvantaged Communities List (2022 Update) is the latest version calculated based upon the following specific indicators, an expanded list from previous versions. After receiving public input at workshops and in written comments, in May 2022, CalEPA released its updated Designation of Disadvantaged Communities for the purpose of SB 535. In this designation, CalEPA formally designated four categories of geographic areas as disadvantaged.

1. **Pollution Burden – Exposures**

Download zipped folder: SB 535 Excel Spreadsheet and data dictionary (May 2022):

Ozone Percentile	Ozone percentile
PM2.5	Annual mean PM 2.5 concentrations
PM2.5 Percentile	PM2.5 percentile
Diesel PM	Diesel PM emissions from on-road and non-road sources
Diesel PM Percentile	Diesel PM percentile
Drinking Water	Drinking water contaminant index for selected contaminants
Drinking Water Percentile	Drinking water percentile
Lead	Potential risk for lead exposure in children living in low-income communities with older housing
Lead Percentile	Children's lead risk from housing percentile
Pesticides	Total pounds of selected active pesticide ingredients (filtered for hazard and volatility) used in production-agriculture per square mile in the census tract
Pesticides Percentile	Pesticides percentile
Tox. Release	Toxicity-weighted concentrations of modeled chemical releases to air from facility emissions and off-site incineration (from RSEI)
Tox. Release Percentile	Toxic release percentile
Traffic	Traffic density, in vehicle-kilometers per hour per road length, within 150 meters of the census tract boundary
Traffic Percentile	Traffic percentile

2. **Pollution Burden – Environmental Effects**

Cleanup Sites	Cleanup sites, sum of weighted EnviroStor cleanup sites within buffered distances to populated blocks of census tracts
Cleanup Sites Percentile	Cleanup sites percentile
Groundwater Threats	Groundwater threats, sum of weighted GeoTracker leaking underground storage tank sites within buffered distances to populated blocks of census tracts
Groundwater Threats Percentile	Groundwater threats percentile
Haz. Waste	Sum of weighted hazardous waste facilities and large quantity generators within buffered distances to populated blocks of census tracts
Haz. Waste Percentile	Hazardous waste percentile

Imp. Water Bodies	Impaired water bodies, sum of number of pollutants across all impaired water bodies within buffered distances to populated blocks of census tracts
Imp. Water Bodies Percentile	Impaired water bodies percentile
Solid Waste	Sum of weighted solid waste sites and facilities (SWIS) within buffered distances to populated blocks of census tracts
Solid Waste Percentile	Solid waste percentile
Pollution Burden	Average of percentiles from the Pollution Burden indicators (with a half weighting for the Environmental Effects indicators)
Pollution Burden Score	Pollution Burden variable scaled with a range of 0-10. (Used to calculate CES 4.0 Score)
Pollution Burden Percentile	Pollution burden percentile

3. Population Characteristics – Sensitive Populations

Asthma	Age-adjusted rate of emergency department visits for asthma
Asthma Percentile	Asthma percentile
Low Birth Weight	Percent low birth weight
Low Birth Weight Percentile	Low birth weight percentile
Cardiovascular Disease	Age-adjusted rate of emergency department visits for heart attacks per 10,000
Cardiovascular Disease Percentile	Cardiovascular disease percentile

4. Population Characteristics – Socioeconomic Factors

Education	Percent of population over 25 with less than a high school education
Education Percentile	Education percentile
Linguistic Isolation	Percent limited English speaking households
Linguistic Isolation Percentile	Linguistic isolation percentile
Poverty	Percent of population living below two times the federal poverty level
Poverty	Poverty percentile
Unemployment	Percent of the population over the age of 16 that is unemployed and eligible for the labor force
Unemployment Percentile	Unemployment percentile
Housing Burden	Percent housing burdened low income households
Housing Burden Percentile	Housing burden percentile
Pop. Char.	Average of percentiles from the Population Characteristics indicators
Pop. Char. Score	Population Characteristics variable scaled with a range of 0-10. (Used to calculate CES 4.0 Score)
Pop. Char. Score Percentile	Population characteristics percentile

Figure 1. Map of Disadvantaged Communities in the Santa Monica Bay National Estuary Program Study Area

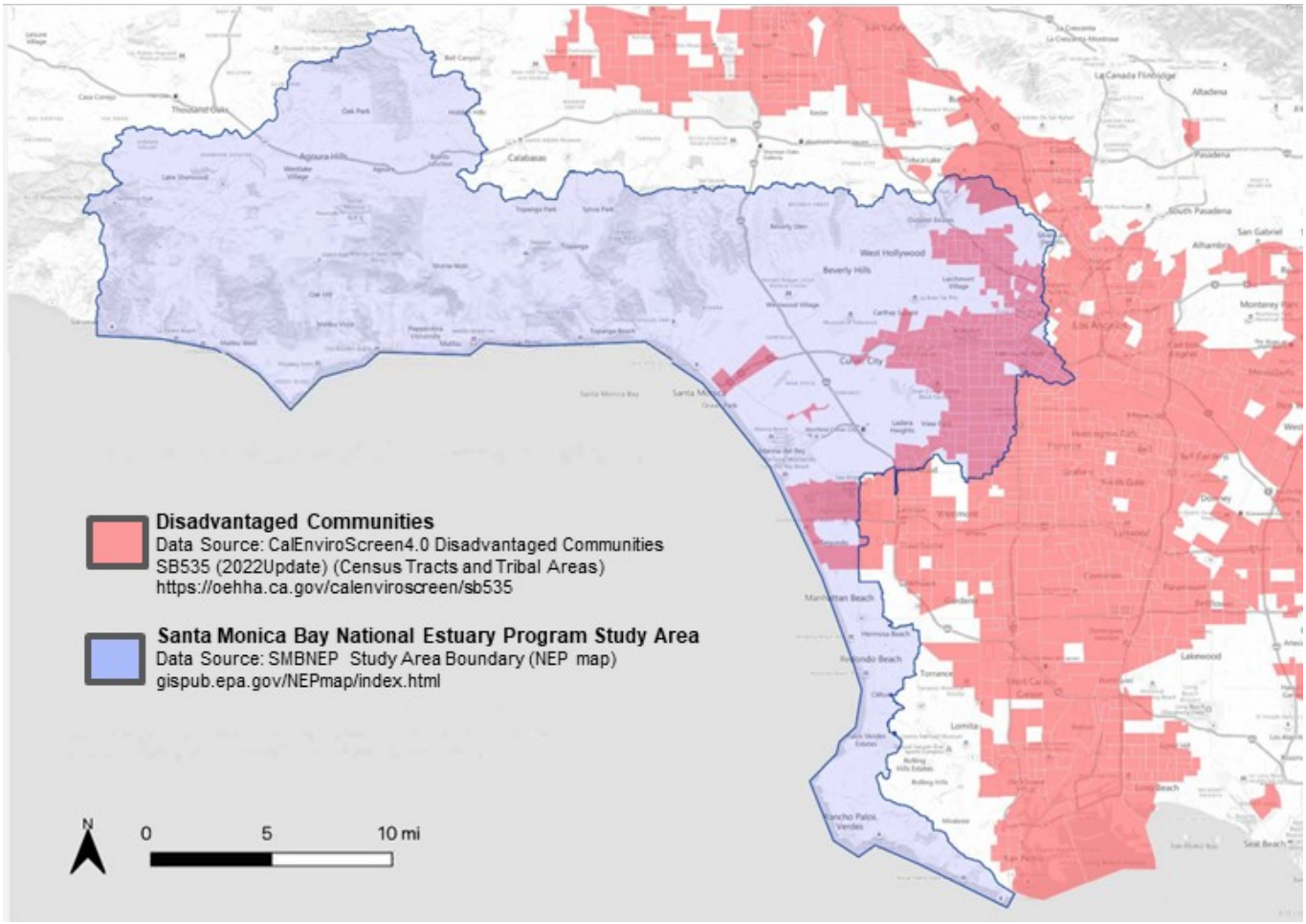


Figure 2. Map of Disadvantaged Communities in the Santa Monica Bay National Estuary Program Study Area

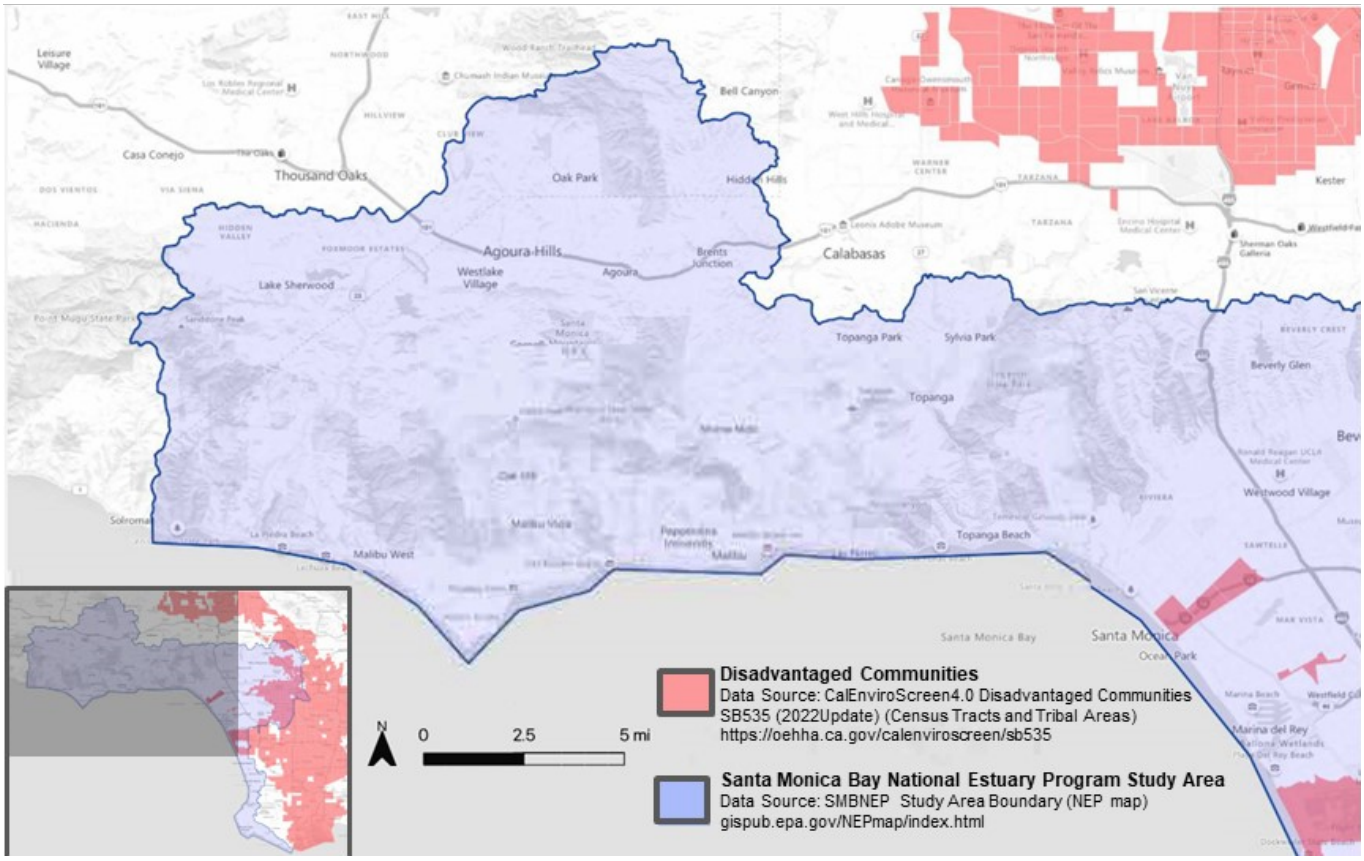


Figure 3. Map of Disadvantaged Communities in the Santa Monica Bay National Estuary Program Study Area

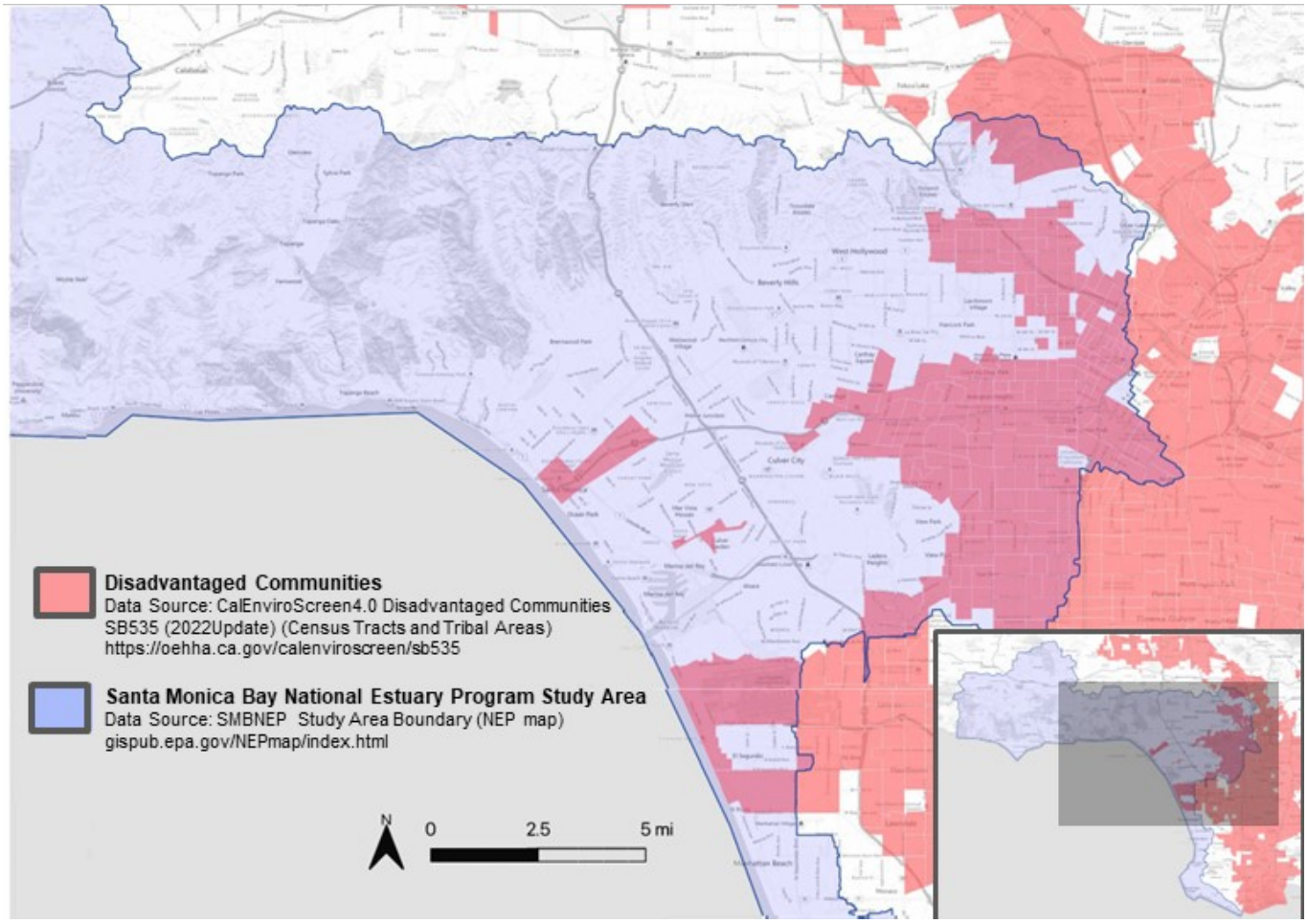
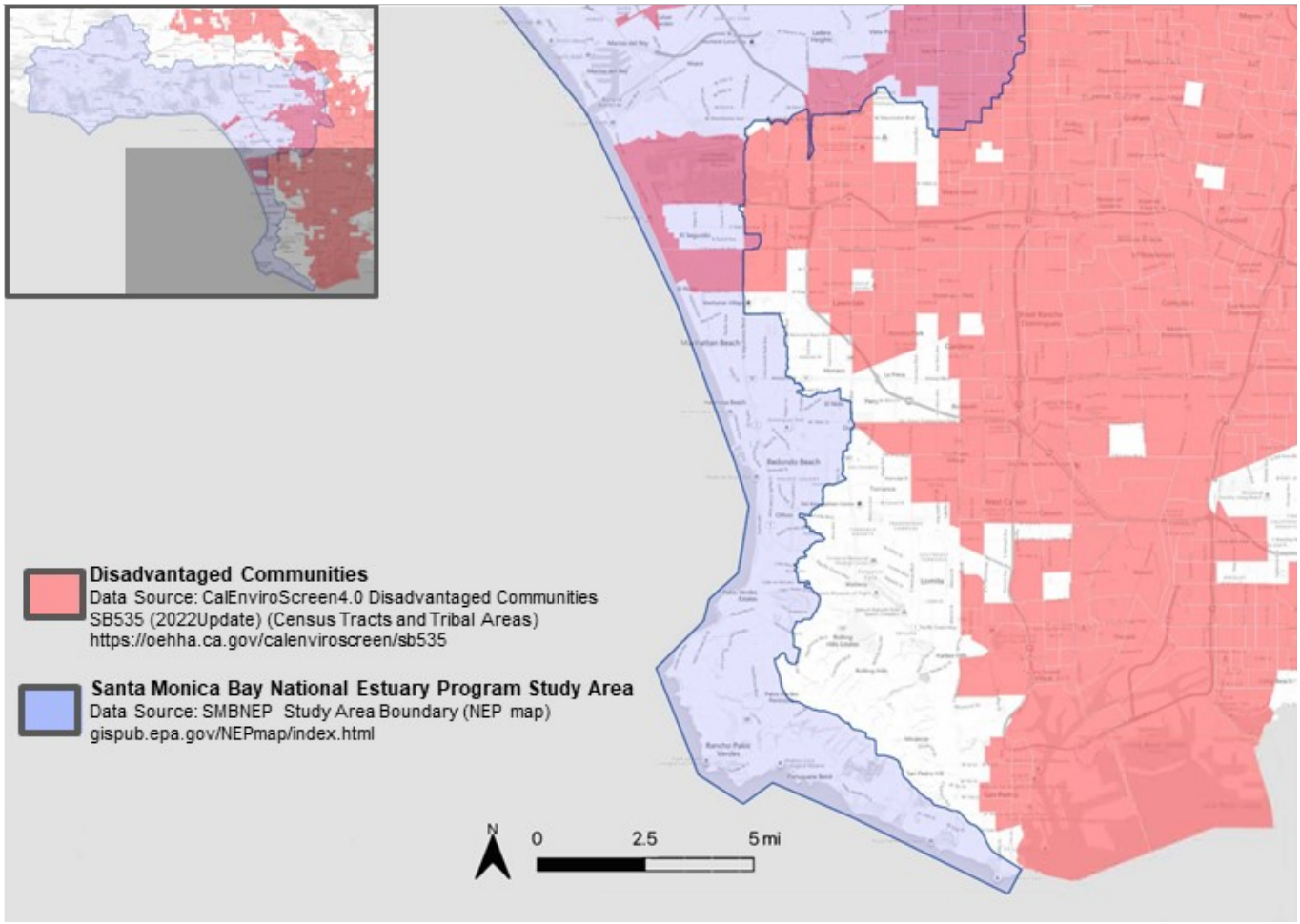


Figure 4. Map of Disadvantaged Communities in the Santa Monica Bay National Estuary Program Study Area



Accompanying Geographic Data

It is expected that the massive scale of the metropolitan area that comprises the SMBNEP study area will be brought into focus with detailed user data made possible by the mobile technology use pattern study. This supplemental data is a key element of the program and project goals for the immediate and foreseeable future as it will identify which fraction of the millions of residents and travelers use the coastal resources in the SMBNEP study area and eliminate speculation as to how to identify and/or assign resources to DAC census tract data from the CalEnviroScreen mentioned above. In addition, the Native Land Digital map tool is included as a point of reference.

The Native Land Digital map tool is included as a point of reference for providing context and dialogue, e.g., land acknowledgement, throughout the term of the projects, and to promote understanding for the Gabrielino-Tongva, Chumash, and Fernade?o Tataviam who have lived and continue to live here. The mission of the Native Land Digital is as stated: Native Land Digital strives to create and foster conversations about the history of colonialism, Indigenous ways of knowing, and settler-Indigenous relations, through educational resources such as our map and Territory Acknowledgement Guide. We strive to go beyond old ways of talking about Indigenous people and to develop a platform where Indigenous communities can represent themselves and their histories on their own terms. In doing so, Native Land Digital creates spaces where non-Indigenous people can be invited and challenged to learn more about the lands they inhabit, the history of those lands, and how to actively be part of a better future going forward together.

Stakeholder Engagement Plan:

The SMBNEP has engaged and established stakeholder/community group partnerships with organizations representing DAC; and it is expected that new partnerships will emerge with the execution of the BIL Work Plan. In particular, it is expected that the Coastal Access and Beach Visitor User Data Study, a key element of the BIL Work Plan and the Equity Strategy herein, will provide insights into where user groups originate from within the region and travel undetected otherwise and to superimpose the place of origin data with existing census tract data showing DAC; and it is anticipated that the data with bring more stakeholders, stakeholder groups, partnerships and potential for partnerships into focus and into being.

SMBNEP BIL Work Plan: Stakeholder Engagement and Partnerships

Group / Partner / Community Name	Geographic Locale	Type of Engagement Anticipated	Rationale for Engagement	Timing/ Regularity of engagement
Black Surfers Collective (BSC)	Local	Strategic Project Partner and Collaborator – all project elements	Promoting access, recreation, environmental stewardship and public health – DAC lack equitable access to coastal recreational resources. The program includes water safety, transportation, equipment, and training.	Ongoing
Color the Water	Local	BSC sub-contractor	Surf lessons. Promoting recreation and public health – see above	Ongoing
Surf Bus Foundation	Local	BSC sub-contractor	Surf lessons, environmental stewardship and transportation. Promoting recreation and public health – see above	Ongoing
Swim Up Hill	Local	BSC sub-contractor	Swim Lessons.	Ongoing
YMCA	Local	BSC sub-contractor	Swim Lessons.	Ongoing
Heal the Bay	Local	BSC sub-contractor	Nick Gabaldon Day support – celebration of historic waterman and surfer.	Ongoing
Brown Girls Surf	Local	BSC sub-contractor	Surf lessons.	Ongoing
Boys and Girls Club	Local	Dune restoration engagement and advocacy – education and volunteering	Protecting recreational access, restoration of historical habitat, and coastal/climate resiliency	New
LA Conservation Corps	Local	Dune restoration engagement and advocacy – education and installation	Protecting recreational access, restoration of historical habitat, and coastal/climate resiliency	New
Native American Tribal Organizations	Local	Adamson House Resiliency – first peoples consult	Recreation and climate resiliency infrastructure	New

Tracking Benefits

The four Project Equity Targets (taken from “tracking benefits” in the NEP/GEO Equity Strategy Template) are anticipated to correlate with yet to be released Justice40 targets by the USEPA. The Project Equity Targets will serve as placeholder Justice40 targets linking activities to project benefit equity flow. The targets are listed in section I and identified in the description, as they correlate, of each project outlined in section II. The targets may be fulfilled in part or in whole by any given project. Additionally, it is expected that budget data from the implementation of the Key Activities, identified in section II, will serve as indicators for budget projections and actuals in order to track equity flow on applicable projects.

Looking Forward

The BIL Work Plan bolsters existing work and sets in motion a series of defining and ambitious projects laying the groundwork for healthy and revitalized ecosystems, improved access, and resiliency against climate induced changes to the coastline and ocean waters of Santa Monica Bay. Current policy-making is hampered by insufficient information as to how all communities, including DAC, access and use the coastal resources of the SMBNEP study area. Central to the BIL project cycle is a suite of investments that will deliver discernable benefits to the residents and visitors of coastal Los Angeles County. These investments represent an opportunity to address inequities while creating a vibrant living coastline that will deliver benefits for generations.

The SMBNEP expects these efforts to resonate with people commensurate with the importance of the resources SMBNEP endeavors to understand and protect. The SMBNEP celebrates our collective connection to our Bay and watershed. Our efforts are never static as they honor and are responsive to the contemporary demands of our environment and community. The SMBNEP is grateful for the resources and direction provided by the Bipartisan Infrastructure Law and Justice40 Initiative. Especially through the development of benefits expressly for DAC. We will continue to draw on the strengths of our science-based locally driven program to deliver on these forward looking efforts.