



Morro Bay National Estuary Program
Bipartisan Infrastructure Law (BIL)
Long-Term Strategy
May 2023

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MBNEP BIL Long-Term Strategy

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1. Introduction

Bipartisan Infrastructure Law

On November 15, 2021, President Biden signed the Bipartisan Infrastructure Law (P.L. 117-58), also known as the “Infrastructure Investment and Jobs Act of 2021” (IIJA) or “BIL.” The law includes \$50 billion to the U.S. Environmental Protection Agency (EPA) for water infrastructure, the single largest investment in water that the federal government has ever made. The BIL provides \$132 million in funding for the 28 longstanding National Estuary Programs (NEPs) for fiscal years 2022 through 2026. This funding will be evenly distributed to the NEPs, annually providing each with approximately \$900,000 in BIL funds. Funding through the BIL provides a historic investment to the NEP, more than doubling the current base funding of \$750,000 per estuary annually.

A core emphasis of the NEP BIL funding is the acceleration of environmental and community restoration goals within the CCMPs. The substantial increase in NEP funding appropriated in the BIL is expected to significantly enhance NEP capacities to do this work, as well as enable the NEPs to develop and strengthen partnerships necessary to make the most effective use of these new funds.

Environmental justice (EJ) and addressing climate change are key EPA priorities reflected in the Agency’s Fiscal Year (FY) 2022–2026 EPA Strategic Plan, which provides the framework for EPA to integrate EJ considerations into its programs, plans, and actions, and to ensure equitable and fair access to the benefits from environmental programs for all individuals. The Strategic Plan’s first two goals are to:

- “Tackle the Climate Crisis” by reducing emissions that cause climate change and accelerating resilience and adaptation to climate change impacts; and
- “Take Decisive Action to Advance Environmental Justice and Civil Rights” by promoting EJ and protecting civil rights at the federal, state, and local levels.

EPA is embedding these goals in its programs, policies, and activities, including the implementation of the NEP BIL funds. NEP projects funded through BIL should seek to:

- Accelerate and more extensively implement CCMPs
- Ensure that benefits reach disadvantaged communities
- Build the adaptive capacity of ecosystems and communities
- Leverage additional resources

Morro Bay National Estuary Program (Estuary Program)

The Morro Bay National Estuary Program (Estuary Program) works to protect and restore the Morro Bay estuary and its watershed through the implementation of our Comprehensive Conservation and Management Plan (CCMP) for Morro Bay, which is currently undergoing an update. The three Estuary Program programmatic focus areas are:

- Habitat protection and restoration
- Environmental monitoring and research
- Public participation, education, and outreach.

Morro Bay was accepted into the National Estuary Program in 1995 when the Administrator of the U.S. Environmental Protection Agency (EPA) accepted Governor Wilson's nomination of the program. With financial support from EPA, Estuary Program staff worked with government agencies, non-profits, businesses, and the local community to develop a watershed-based management plan, the Comprehensive Conservation and Management Plan for Morro Bay (CCMP). The CCMP defines the priority issues facing the estuary and watershed and identifies specific Action Plans to address them. It also defines the management structure of the organization, which is based on collaboration and partnerships between the many groups that make up the Estuary Program.

The EPA formally approved our CCMP in January 2001 and has continued to provide significant grant funding to further the implementation of that plan. Almost every CCMP action plan was initiated, and nearly half are either complete or fully in place and ongoing. The CCMP was revised in 2012 through a public process and approved by the Estuary Program's Management Conference in February 2013. The CCMP was updated in 2020, with approval by the Estuary Program's Management Conference. We are working with EPA to finalize the updated plan. Various action plans from the CCMP are referenced in this workplan. The Estuary Program works with its many partners to implement these actions in the watershed.

This BIL Work Program describes the Estuary Program's planned efforts for Fiscal Year (FY) 2022 and FY 2023, which covers the period through September 30, 2023. This Work Program follows the final guidance released by the EPA on July 26, 2022, in the memorandum, "National Estuary Program Bipartisan Infrastructure Law Funding Implementation Memorandum for Fiscal Years 2022-2026. Unless otherwise noted in the EPA BIL memorandum, the FY 2021 – FY 2024 Clean Water Act §320 National Estuary Program Funding Guidance also applies to BIL funding. Due to the delay in the release of final guidance, this Work Program covers the remainder of FY 2022, upon approval of the Work Program by the Estuary Program's Management Conference until September 30, 2022, and for FY 2023, the period from October 1, 2022, through December 31, 2023. This allows the Estuary Program access to BIL funds for Year 1 and Year 2.

BIL funding for the National Estuary Program (NEP) is in addition to funding allocated through Section 320 of the Clean Water Act (CWA). Future BIL work programs for FY 24, 25, and 26 will be prepared concurrently with regular 320 work programs. The expected BIL funding available

to the Estuary Program for FY22 and FY23 is \$1,819,600. The remaining years including FY 24, 25, and 26 will require approved annual work programs with anticipated funding of \$909,800 available annually.

The Bay Foundation of Morro Bay, a 501(c)(3) nonprofit corporation, will continue to serve as the legal and fiscal agent for the Estuary Program by employing staff, signing contracts, and applying for grants. The Estuary Program Executive Committee oversees the progress of the annual workplan and is the policy decision-making body for the Estuary Program. While Section 320 funding requires a non-federal match of at least one-to-one, BIL funding match requirements are waived for FY22 and 23. A waiver for future match requirements associated with BIL funding is available upon approval of a submitted "Equity Strategy" that will be prepared by the Estuary Program and submitted by June 1, 2023, with the FY24 BIL and 320 Work Programs. While match is not currently required for BIL funding, the Estuary Program anticipates leveraging BIL funds with state, local, private, and in-kind resources and will document such efforts in a similar method as 320 funds.

Management Conference Structure and Membership

Technical Advisory Committees – The Technical Advisory Committees (TAC) are composed of experts in various areas that provide technical advice and input to the program. These TACs are formed for specific technical topics such as Sedimentation Monitoring, Pikeminnow Management, Estuarine Habitats, and Education and Outreach. These TACs provide advice to staff in many areas: collaborating and reviewing Community Project options, investigating technical issues, providing advisory oversight to monitoring, restoration, and education efforts, recommending changes to the CCMP, and tracking and reporting on implementation. The TACs meet on an as needed basis. Membership is not limited to a specific number of seats, and members are invited by staff to join.

Executive Committee – The Executive Committee (EC) is the key decision-making body for the Estuary Program. It provides broad policy direction, approves priorities for CCMP implementation, seeks and develops funding sources, and approves CCMP changes, as necessary. Specific responsibilities include approving funding requests for the Morro Bay Restoration Fund, monitoring and evaluating the performance of the program, approving the annual workplan, and providing leadership and overall direction for the Estuary Program. The EC meets quarterly. Membership includes representatives from specific agencies and interest group seats that are appointed through a majority vote of the EC and serve two-year terms.

Bay Foundation Board of Directors – The Bay Foundation is the nonprofit home of the Estuary Program, and its board of directors approves priorities for CCMP implementation, workplans, Community Projects, and other major components of the work of the Estuary Program. The Board of Directors works collaboratively with the Executive Committee on strategic direction and priorities of the Estuary Program.

2. Goals for CCMP Implementation

This long-term strategy describes the Estuary Program’s broad goals, specific projects, and tentative budget for FY22-26 BIL Funding. This strategy will guide Estuary Program efforts and provide a mechanism to measure our success over the BIL funding period. It is important to recognize that the nature of a collaborative, non-regulatory program such as the Estuary Program demands flexibility; just as some planned projects may be delayed, other unforeseen opportunities and partnerships to further implementation of the CCMP will present themselves. Additionally, this BIL strategy will provide a resource for future BIL workplan development and may be modified based on current goals, opportunities, and priorities.

CCMP Program Goals

Water Quality Protection and Enhancement: Water quality in the Morro Bay watershed and estuary supports diverse habitats and wildlife populations, safe recreation, clean drinking water, and well-balanced economic uses. One of the main tenets of the NEP is to protect and restore water quality, as the NEP is part of the federal Clean Water Act. This goal illustrates the aspiration for clean water that supports a variety of uses by people and wildlife in Morro Bay.

Ecosystem Restoration and Conservation: The Morro Bay watershed and estuary sustain a resilient community with high habitat connectivity, ample biological integrity, proper ecosystem function, and a vibrant economy. This goal illustrates the Estuary Program’s interest in conserving and restoring habitats, biodiversity, and ecosystem processes, all of which affect the local economy. The goal also envisions a healthy ecosystem and economy even in the face of change.

Public Education, Outreach, and Stewardship: Citizens and visitors around Morro Bay understand basic estuary science and the impacts of specific actions on estuary health and are engaged stewards of the Morro Bay estuary and watershed. This goal represents the importance of informed and engaged citizens for the future health of Morro Bay and a vision that community members will increasingly become stewards of the estuary.

Fostering Collaboration: Community members, local government, nonprofits, state and federal agencies, and public and private landowners collaborate and leverage resources to facilitate effective management and increased scientific knowledge of the Morro Bay estuary and watershed. Another core tenet of the NEP is collaboration, as described in the Clean Water Act. This goal showcases the Estuary Program’s commitment to fostering collaboration to effectively understand and manage the resources of Morro Bay.

Proposed BIL focus areas and projects have been strategically developed to meet overarching CCMP program goals. In addition, BIL projects have been prioritized to meet BIL specific guidance to: accelerate and more extensively implement CCMPs, ensure benefits reach disadvantaged communities, build the adaptive capacity of ecosystems and communities, and

leverage additional resources. These goals are embedded in several proposed activities and projects as summarized in Table 2.1.

Table 1. NEP BIL Priorities.

Project Priorities	Implement CCMP	Benefits to DA Communities	Build Adaptive Capacity	Leverage Resources
Capacity Building	X		X	
BIL Management and Equity Strategy Development	X	X	X	
Tracking Bay Health	X	X	X	X
Tracking Creek Health	X	X	X	X
Eelgrass Monitoring and Research	X		X	X
Data Analysis and Management	X		X	
Invasive Species Management	X		X	X
Habitat Restoration and Climate Planning	X	X	X	X
Fish Habitat Monitoring and Improvement	X		X	X
Open Space Habitat and Access	X	X	X	X
Implement BMPs in Watershed	X		X	X
Stormwater Improvement	X	X	X	X
Groundwater Monitoring	X	X	X	X
Communication	X	X	X	
Environmental Education	X	X	X	
Nature Center	X	X		
Community Engagement and Stewardship	X	X	X	

Accelerate and more extensively implement CCMPs

All proposed projects utilizing BIL funding will accelerate the implementation of the Estuary Program’s CCMP. Proposed projects in this long-term strategy have been prioritized based on need, readiness, and to maximize impact in several program areas.

Ensure benefits reach disadvantaged communities

Project priority areas highlighted in Table 2.1 have potential benefits to disadvantaged communities. The Estuary Program will utilize its Equity Strategy to prioritize and implement projects through the lens of environmental justice and equity. The strategy also includes a baseline to understand how our NEP (pre-BIL) has implemented projects that benefit disadvantaged communities. This baseline helps inform numeric targets tailored to our study area and methods for tracking benefits.

Several tasks supported through BIL funding include multi-year projects that will be implemented through the lens of equitable and fair access. Several projects listed in this long-term strategy will consider environmental justice issues in implementation, including, but not limited to:

- Free access to an upgraded nature center with increased educational opportunities.
- Partnering with local environmental education organizations to increase opportunities for disadvantaged communities to access field trips and camps.
- Teacher training and development of online educational content.
- Monitoring groundwater for surrounding communities.
- Restoring water quality and increasing habitat.
- Supporting open space and access improvements.

Build the adaptive capacity of ecosystems and communities

Understanding, planning, and implementing adaptation strategies to address climate impacts are at the forefront of the Estuary Program's focus. The Estuary Program builds off its 2021 Climate Vulnerability Assessment to implement the CCMP in the context of climate impacts. Most tasks listed in this long-term strategy aim to build the adaptive capacity of ecosystems and communities. Specific examples include:

- Implementing a robust monitoring program that will measure changes occurring in the estuary and creeks.
- Understanding the impact of droughts on the landscape, habitat, and water supply.
- Modeling the impacts of sea level rise on the estuary habitats and developing adaptation strategies.
- Increasing educational programming on climate change topics
- Finalizing a Conservation Planning Initiative that will identify and prioritize future actions.

Leverage additional resources

The Estuary Program has a history of significantly leveraging and supporting program implementation with additional federal and non-federal resources. While match is not a required component of this BIL funding with an approved Equity Strategy, activities will be strategically selected to complement partner efforts and further projects that otherwise would

not have the resources to be implemented. Additionally, this long-term strategy has been tailored in the context of focusing efforts to prioritize projects, collaborating with partners and stakeholders to identify opportunities, and identifying sources of additional leveraged funding to maximize the impact of projects and efficiently utilize BIL funds. Examples of how the Estuary Program will leverage additional resources include:

- Collaborating with partners to identify and apply to grant funding sources for larger scale projects, leveraging BIL funding as match.
- Utilizing BIL funding to help further planning and implementation for higher cost projects including stormwater improvements and fish passage barriers.
- Partnering with local organizations to combine shared goals and resources to develop and implement more impactful education and outreach projects.

4. BIL Program Areas and Project Priorities

BIL funding will be used to support the following proposed project areas and priorities. Proposed projects and activities are grouped into the following categories: capacity building, environmental monitoring and research, habitat restoration and planning, water infrastructure, and education and outreach.

As with the BIL FY22/23 workplan, proposed BIL projects will be finalized through annual workplans and approved by the Estuary Program's Management Conference. Several factors are considered in prioritizing BIL projects, including project readiness, maximizing impact to accelerate actions in the CCMP, opportunities to leverage BIL funding with grants, and benefits to underserved communities. Project readiness may include consideration of whether necessary factors like permitting, additional funding needs, and project partners are in place. Additionally, BIL funding will be considered to help contribute towards larger cost implementation projects, like stormwater improvements or fish passage barrier projects, which may depend on external grant opportunities. Specific projects using BIL funding will be evaluated and prioritized using these factors during BIL workplan development. Additionally, there are several multi-year projects proposed that will carry over to future BIL workplans.

Capacity Building

Goal: Increase and maintain staff capacity to support monitoring, restoration, and education/outreach programs to plan, administer, and implement BIL projects. Develop and implement an Estuary Program Equity Strategy.

Proposed activities:

The increase in programmatic activity will require additional staff to administer and implement projects. Staff will support the administration of BIL funding, reporting, and grant/contract management. Additionally, staff will support restoration, monitoring, and education/outreach needs. This activity includes increasing associated technology needs such as equipment and software to perform programmatic tasks. General monitoring and restoration equipment and supplies that can support multiple program efforts are included in this task. This activity also includes professional development for training opportunities for staff.

Estimated timelines for projects under this program area:

- Capacity Building – Additional staff will be recruited in FY23 and will continue to be supported with BIL funding through FY26.
- Equity Strategy – An equity strategy will be developed in FY23. The strategy will be implemented.

Lead and Partners: The Estuary Program will be the lead for activities in this program area. Partners will be recruited for project support as needed.

CCMP Actions Addressed: All

How the project/activity supports the CWA: Supports contribution toward all CWA core programs.

Environmental Monitoring and Research

The following section describes the monitoring goals and long-term strategy for monitoring and research efforts. One of the Estuary Program’s primary goals is water quality protection and enhancement. Water quality in the estuary and watershed supports diverse wildlife, a thriving eco-tourism industry, clean drinking water, active commercial fishing and shellfish farming operations, and the health of the residents and visitors of the area. Central to all of these are clean water.

Goal: Conduct monitoring and research to support understanding of estuary health.

Proposed Project Activities:

Estuary Program staff will conduct monitoring to understand changing conditions in the estuary. Partnerships will be key to these efforts. Potential projects include bay monitoring to

understand conditions impacting habitats such as eelgrass and ongoing monitoring to support the beneficial uses of safe swimming and shellfish farming. The task may include the purchase of equipment to support these monitoring efforts.

Proposed Timeline for Estuary Health Monitoring: CeNCOOS sensor array equipment purchase: FY22-23. Ongoing sensor maintenance: FY23-26. Other efforts: FY22-26

Goal: Conduct monitoring and research to support understanding of watershed health.

Proposed Project Activities:

Estuary Program staff will conduct monitoring throughout the watershed to track long-term ambient trends and identify potential projects to improve water quality, habitat, and water quantity for protection of aquatic life. Potential projects include expanded monitoring of conventional water quality parameters, ongoing monitoring to support beneficial uses of safe swimming and shellfish farming as creek waters enter the bay, drought monitoring to identify potential water conservation projects, and expanded specialized monitoring to support assessments of waterbodies such as toxicity and herbicide/pesticide monitoring. The task may include the purchase of equipment to support these monitoring efforts.

Proposed Timeline for Creek Health Monitoring: Purchase of water quality monitoring equipment: FY22-23. Drought monitoring sensor installation: FY23. Expanded drought monitoring: FY23-26. Expanded monitoring to assess waterbodies: FY23-26. Other efforts: FY22-26.

Goal: Conduct eelgrass monitoring and research to track eelgrass extent and bed health to track changes over time.

Proposed Project Activities:

Eelgrass is a valuable habitat type in Morro Bay that has undergone large amounts of change in the last decade. The Estuary Program has mapped and monitored eelgrass for twenty years. Proposed projects under BIL funding include mapping of baywide eelgrass to track changes over time; detailed bed condition monitoring to assess for early signs of eelgrass decline; research related to water quality, bay circulation, hydrodynamics, and other factors impacting eelgrass health; and expanded monitoring efforts of other facts impacting eelgrass such as macroalgae presence.

Proposed Timeline for Eelgrass Monitoring and Research: Bay-wide eelgrass maps: FY23 and FY25. Other efforts: FY22-26.

Goal: Conduct data analysis and management to support widespread distribution of data and development of analysis that supports decision making.

Proposed Project Activities:

The Estuary Program is focused on the collection of high quality data to support assessment and management of the estuary and watershed. In order for the data to be useful for partners, the data must be managed such that it can be shared via the California Environmental Data Exchange Network (CEDEN). Similarly, data analysis must take place, in particular when state-approved methods exist, to make the data more useful for assessments. Estuary Program staff will conduct tasks to streamline and ensure accuracy during the data management practice. They will also conduct analysis of data to support assessment.

Proposed Timeline for Data Analysis and Management: Database update: FY23-24. Database maintenance: FY25-26. Data analysis: FY22-26.

Potential Key Stakeholders: Central Coast Regional Water Quality Control Board, EPA, State Water Resources Control Board, Coastal San Luis RCD, Cuesta College, Cal Poly San Luis Obispo, San Luis Obispo County, California Department of Fish and Wildlife, NOAA, USGS, Southern California Coastal Water Research Project, Moss Landing Marine Labs, UC Santa Barbara, California Department of Public Health, Creek Lands Conservation, California State Parks, US Army Corps of Engineers, commercial shellfish farms, Morro Coast Audubon Society, The Land Conservancy of SLO County, and public and private landowners.

Potential Sources of Leveraged Funding: California Department of Fish and Wildlife (Prop 1, Prop 68), Wildlife Conservation Board, State Coastal Conservancy, and the Bay Foundation Restoration Fund.

CCMP Actions Addressed: MON-1 (Support Development of TMDLs), MON-2 (Monitor Environmental Indicators), MON-3 (Monitor Project Effectiveness), MON-5 (Support Partners), MON-6 (Support Research Activities), CLIM-1 (Improve Understanding of Climate Change Impacts), ECR-10 (Nutrient and Bacteria Dynamics), FWR-3 (Understand Flow for Public Trust Resources), ECR-7 (Eelgrass Data and Research), ECR-8 (Eelgrass Restoration), ECR-9 (Regional and National Collaboration)

Habitat Restoration and Protection

The following section describes the long-term habitat and restoration and protections goals. Habitat restoration goals include pursuing projects to improve habitat quality through invasive species management and addressing key fish passage improvements. Advancing critical research and developing adaptation strategies to increase climate resilience in key habitats is a priority. Several projects may include multi-year phases. For larger restoration projects, this may mean planning to develop designs and permits, and if needed to collaborate with key partners to secure additional grant funding. Other restoration projects, like invasive species management require several years of effort.

Goal: Prioritize, manage, and implement invasive species management in the estuary and watershed.

Proposed Project Activities:

The MBNEP staff will undergo additional studies, planning, and management efforts to improve riparian, floodplain, and estuarine habitats such as tidal marsh and coastal dune systems. Support monitoring, possible mapping, and removal of invasive plants such as giant reed (*Arundo donax*), ice plant (*Carpobrotus*), purple pampas grass (*Cortaderia jubata*), and other species on the Morro Bay sandspit and adjacent estuary habitats. Potentially pursue sensitive species surveys that support invasive species management and restoration activities. Prioritize maintenance and management of restored riparian habitat, including the Chorro Creek Ecological Reserve (CCER), and other critical habitats. The MBNEP staff will continue to work with partners to develop necessary projects to limit invasive species in the estuary and watershed.

Proposed Timeline for Invasive Species Management: Mapping of invasive plant species in FY24 with permitting and management in FY25-26. Ice plant removal on sensitive coastal dune and shoreline habitats in FY23-25 with possible monitoring for follow-up treatment through FY26.

Goal: Support research and planning that furthers understanding of climate impacts to estuary and watershed habitats. Implement restoration projects to improve habitat acreage or conditions.

Proposed Project Activities:

A large focus of BIL funding will support modeling of estuary habitat conditions under multiple sea level rise scenarios and consider adaptation actions with stakeholder involvement. We anticipate conducting a historical ecology study of the estuary and parts of the watershed to inform restoration planning, prioritization, and outreach. We will also work to finalize a Conservation Planning Initiative report that identifies relevant habitat types and key species in the Morro Bay watershed, incorporates climate change vulnerability, and prioritizes restoration/conservation efforts with measurable objectives. As needed, we will continue

supporting oyster research on the shoreline of the estuary. We may implement an additional adaptation project along the shoreline to improve climate resiliency. MBNEP staff will work with partners to further planning and designs of additional habitat restoration projects within the watershed and estuary, which may lead to additional projects. Walters Creek and Chorro Creek both have active conversations with landowners for future project development.

Proposed Timeline for Habitat Restoration and Climate Planning: Sea level rise planning project in FY23-25. Historical ecology study of the watershed in FY23-25. Conservation Planning Initiative report in FY23-25. Additional projects that arise will be completed through FY26.

Goal: Support research and monitoring to increase understanding of fish habitat conditions and populations. Prioritize and further implementation of fish passage barrier improvement projects.

Proposed Project Activities:

The Estuary Program anticipates implementing a baseline fisheries monitoring in the estuary to understand response in abundance and diversity after recent eelgrass expansion. Juvenile steelhead growth and habitat use surveys in Chorro Creek watershed are also anticipated to be completed. We also plan to pursue pre-assessment studies (e.g., alternative analysis) of San Luisito Creek Fish Passage Barriers at Adobe Rd. in conjunction with Highway 1. Additional monitoring or implementation projects will be pursued as they arise.

Proposed Timeline Fish Habitat Monitoring and Improvement: Estuary fisheries survey in FY 24. Steelhead growth and tracking study in the Chorro Creek watershed in FY23-24. San Luisito Creek Pre-Design Studies and Alternative Analysis in FY23-24. We will work to further design and implement projects for supporting fish monitoring and improvement projects through FY26.

Goal: Further plans and implementation to restore habitat and improve conditions at coastal access sites.

Proposed Project Activities:

The Estuary Program will continue to collaborate with community stakeholders and partner organizations to further restore habitat and improve conditions at coastal access sites. We plan to evaluate Pasadena Point for habitat restoration opportunities and access improvements including completing a cultural resources survey. The MBNEP staff also anticipates supporting habitat restoration opportunities and access improvements at Sweet Springs Nature Preserve and other established and protected open spaces in the watershed. The MBNEP staff will also consider further acquisitions or conservation easements for the protection of habitats, such as at Cuesta Inlet or other areas in the watershed as they arise.

Proposed Timeline for Open Space Habitat and Access: Planning for Pasadena Point Access location in FY24-26. The MBNEP staff will consider possible easement or acquisitions to support protection of habitats as they arise through FY26.

Goal: Implement best management practices (BMPs) in the watershed to support improved water quality and quantity.

Proposed Project Activities

Additionally, the MBNEP plans to collaborate with partners and landowners to prioritize and implement BMPs. A range of BMPs are anticipated to be completed including improvements to gully erosion areas, roads, riparian and cross fencing, culverts, and others. Funding is also anticipated to support Cuesta College’s sustainable agriculture program to install a water tank and possibly other BMPs.

Proposed Timeline: Implementation of road improvement projects in FY23-24. Installation of riparian fencing at multiple private landowners in FY23-26. Cuesta College sustainable agriculture program implementation anticipated in FY23-24.

Potential Key Stakeholders: Coastal San Luis RCD, Cuesta College, Cal Poly San Luis Obispo, San Luis Obispo County, City of Morro Bay, California Department of Fish and Wildlife, Creek Lands Conservation, Camp San Luis Obispo, Morro Bay State Parks, Morro Coast Audubon Society, USGS, San Francisco Estuary Institute, and private landowners.

Potential Sources of Leveraged Funding: California Department of Fish and Wildlife (Prop 1, Prop 68), Wildlife Conservation Board, State Coastal Conservancy, Restore America’s Estuaries, the Bay Foundation Restoration Fund, among others.

CCMP Actions Addressed: All

Water Infrastructure

The following section describes long-term water infrastructure goals. The Estuary program aims to utilize BIL funding to prioritize and further implementation of key stormwater improvement projects in the watershed and to implement efforts to monitor groundwater and fill important data gaps.

Goal: Prioritize and further implementation of stormwater improvement projects that improve the health of the bay.

Proposed Project Activities

Identify stormwater projects that assist in increased flood resiliency, peak flow reduction, reduction of erosion, and potentially other habitat benefits with partners. Engage stakeholders on further planning, data collection, and prioritizing stormwater projects that could be supported with BIL funding. Further planning designs and/or permits for selected stormwater improvement project(s) in Los Osos, Morro Bay, and/or Camp SLO.

Proposed Timeline for Stormwater Improvement Projects: Implementation of stormwater improvements at Camp SLO in FY23. Further planning and prioritizing for future stormwater projects will also take place with Camp SLO, City of Morro Bay, SLO County, and others through FY23-FY26.

Goal: Implement efforts to enable collection of groundwater monitoring data.

Proposed Project Activities

This goal aims to implement projects that enable collection of groundwater monitoring data. In the current FY22/23 BIL Workplan, the Estuary program is collaborating with the Los Osos Community Services District (LOCSO) to install a new groundwater monitoring well. Future plans will consider additional rehab of existing groundwater monitoring wells and the prioritization and development of additional potential efforts to collect data that can inform modelling efforts, trends, and management actions.

Proposed Timeline for Ground and Stormwater Monitoring Projects: FY22-26

Potential Key Stakeholders: Los Osos Community Services District (LOCSO), Camp San Luis Obispo, City of Morro Bay, County of San Luis Obispo, and Cuesta College.

Potential Sources of Leveraged Funding: California Department of Fish and Wildlife (Prop 1, Prop 68).

CCMP Actions Addressed: All

Education and Outreach

This focus area aims to build the Estuary program's education and outreach efforts through developing and disseminating communication content, increasing community engagement through teacher trainings, student field trips and programming, and stewardship and restoration opportunities. BIL funding will be used to update the program's free Nature Center to modernize exhibits and provide enriching educational experiences. Additionally, the program aims to build relationships with key partners to develop projects and opportunities that benefit underserved communities.

Goal: Enhance and develop the Estuary Program's website, media content, and library to effectively communicate projects, highlight progress on the CCMP, and engage a wide variety of audiences.

Proposed Project Activities:

This goal aims to enhance and develop innovative ways to share the work of the Estuary program with various audiences. Translating technical monitoring and restoration work to develop educational content and public-friendly media is key to effectively increase the reach of program. Additionally, the Estuary program aims to develop a website based, public-facing, resource, to track the progress made on CCMP actions. Social media, blog posts, videos, press releases, presentations are examples of the multiple tools the program will utilize.

Proposed Timeline for Communication Efforts: FY22-26

Goal: Increase engagement and educational opportunities for teachers and students in the Morro Bay area, as well as in disadvantaged communities.

Proposed Project Activities:

This goal aims to build opportunities for estuary and watershed environmental education through establishing partnerships and developing programming for teachers and students. A teacher training program will be developed and implemented to provide educators with curriculum, innovative techniques, and the resources needed to teach their students about estuary and watershed science while meeting current K-12 NGSS science standards. Strategic efforts will be implemented to expand engagement and educational opportunities to underserved and disadvantaged youth, particularly from Title 1 schools and inland communities.

Proposed Timeline for Environmental Education: FY22-26

Goal: Upgrade and redesign exhibits in the Nature Center to include more interactive exhibits and hands-on activities, as well as establish recurring education and outreach programming in the Nature Center.

Proposed Project Activities:

The Estuary Program's Nature Center provides a unique opportunity to reach community members, students, and visitors, and teach them about the estuary. This goal aims to upgrade and expand the current exhibits, as well as integrate more technology and interactive exhibits to engage more fully with visitors. The Nature Center also needs new signage, advertising, and general ongoing maintenance to be a welcoming place to visit. The Estuary Program will implement a recurring education event series hosted in the Nature Center to engage with youth, teach them about our local watershed and estuary, and inspire them to be good stewards of the environment.

Proposed Timeline for Nature Center Upgrades: FY22-25

Goal: Provide community engagement opportunities that promote stewardship, conservation, and education of the Estuary and watershed. Strengthen partnerships with local indigenous tribes to incorporate traditional ecological knowledge in Estuary Program activities.

Proposed Project Activities:

Under Community Engagement and Stewardship, the Estuary Program will work to increase our volunteer network and opportunities. This includes recurring cleanup events, enhancing our citizen/community science engagement and projects, and organizing opportunities for volunteers to be involved in restoration work. Within this task, the Estuary Program will work build relationships with local indigenous tribes to co-develop a project related to watershed health and learn how to incorporate more Traditional Ecological Knowledge in the Estuary Programs efforts.

Proposed Timeline for Community Engagement efforts: FY22-26

Potential Key Stakeholders: Partners will be recruited for project support as needed and potentially include California State Parks, the Morro Bay Natural History Museum, ECOSLO, Cal Poly, Camp Ocean Pines, One Cool Earth, Creek Lands Conservation, Cal Poly San Luis Obispo, and Cuesta College. Local indigenous tribes include the Chumash and Salinan.

Potential Sources of Leveraged Funding: NOAA B-wet grant program, Cal Poly San Luis Obispo (Education Partner), California Coastal Commission Whale Tale grant program, California Coastal Conservancy Explore the Coast grant program.

CCMP Actions Addressed: EO-1 (Public Education and Outreach), EO-3 (Nature Center), EO-4 (Formal Education Programs), USE-1 (Recreational Uses), CLIM-3 (Climate Adaptation and Education)

5. Proposed Spending Strategy

Insert narrative.

Table 2. FY22/23 BIL Workplan budget by program area and project priorities.

Program Area	Project Priorities	FY22	FY23	Total FY23/23
Capacity Building	Capacity Building	\$176,200	\$240,200	\$416,400
	BIL Management and Equity Strategy	\$15,000	\$10,000	\$25,000
Environmental Monitoring and Research	Tracking Bay Health	\$63,000	\$51,400	\$114,400
	Tracking Creek Health	\$85,400	\$42,500	\$127,900
	Eelgrass Monitoring and Research	\$24,000	\$80,000	\$104,000
	Data Analysis and Management	\$10,000	\$2,000	\$12,000
Habitat Restoration and Protection	Invasive Species Management	\$32,000	\$60,000	\$92,000
	Habitat Restoration and Climate Planning	\$122,800	\$160,000	\$282,800
	Fish Habitat Monitoring and Improvement	\$179,500	-	\$179,500
	Open Space Habitat and Access	\$ 20,600	\$11,900	\$32,500
	Implement BMPs in Watershed	\$66,500	-	\$66,500
Water Infrastructure	Stormwater Improvement	\$ 20,000	\$115,000	\$135,000
	Water Infrastructure	\$75,000	\$70,000	\$145,000
Education and Outreach	Communications	\$20,000	-	\$20,000
	Environmental Education	-	\$30,000	\$30,000
	Nature Center	-	\$20,000	\$20,000
	Community Engagement and Stewardship	-	\$17,000	\$17,000
Total		\$910,000	\$910,000	\$1,820,000

Table 3. Proposed FY24-26 BIL spending strategy by program focus area.

Program Area	FY24*	FY25*	FY26*	Estimated Total
- Project Priorities				
Capacity Building				
- Capacity Building	\$256,000	\$265,000	\$275,000	\$796,000
- BIL Management and Equity Strategy				
Environmental Monitoring and Research				
- Tracking Bay Health	\$144,500	\$244,500	\$168,500	\$557,500
- Tracking Creek Health				
- Eelgrass Monitoring and Research				
- Data Analysis and Management				
Habitat Restoration and Protection				
- Invasive Species Management	\$375,500	\$329,000	\$410,500	\$1,115,000
- Habitat Restoration and Climate Planning				
- Fish Habitat Monitoring and Improvement				
- Open Space Habitat and Access				
- Implement BMPs in Watershed				
Water Infrastructure				
- Stormwater Improvement	\$90,000	\$20,000	\$28,500	\$138,500
- Water Infrastructure				
Education and Outreach				
- Communications	\$44,000	\$51,500	\$27,500	\$123,000
- Environmental Education				
- Nature Center				
- Community Engagement and Stewardship				
Total by Fiscal Year	\$910,000	\$910,000	\$910,000	\$910,000

*Projected budget (May change based on needs, priorities, and during the finalization of annual work plans)

Figure 1. Chart of estimated percent (%) proposed spending of BIL funds by Program Areas FY22-26. (*FY24-26 are based on projected budgets and may change based on needs, priorities, and during the finalization of annual work plans).

