

**Morro Bay National Estuary Program**  
**Program Evaluation Status for 2025**  
Prepared for the February 2024 Executive Committee Meeting

This memo provides the status of the required actions outlined in the Program Evaluation (PE) letter from the 2020 review by EPA.

### **Reporting on Changes in Conditions and Outcomes**

Status: Ongoing

Feedback from PE process: EPA would like to see calculations or estimates of pollutant reduction due to Comprehensive Conservation & Management Plan (CCMP) actions, whenever feasible. Would like to see these results shared in the annual work plan and the MBNEP website.

Activities to address comment:

- Whenever possible, the Estuary Program incorporates pre- and post-project monitoring designed to provide data of pollutant reduction or restoration success. This is constrained by project type and monitoring feasibility (both in terms of logistics and cost). The Estuary Program is partnered with Trout Unlimited (TU) to collect flow data on Pennington Creek in a location where a TU project was implemented to address a water diversion. Staff continue to conduct ongoing monitoring of the freshwater seeps along the bay shoreline for nitrates to assess the impact of the Los Osos Water Reclamation Facility on shallow groundwater contamination.
- The Chorro Creek Ecological Reserve (CCER) floodplain restoration project was designed to reconnect the creek to its floodplain to trap sediment and improve habitat. During the large storms in January 2023, the creek road crossing was washed out and there were a number of geomorphic changes. Estuary Program is seeking funding for adaptive management of the site and planning surveys to assess geomorphic changes to determine if any modifications are needed.
- Planning interns have been tracking the status of CCMP Action Plans to support development of a webpage to share CCMP implementation status (see below).

### **CCMP Implementation**

Status: Ongoing

Feedback from PE process: EPA liked the internal tracking system we developed to monitor the CCMP implementation progress. They would like to see a public-facing version of the information, perhaps in the Annual Report or on the website.

Activities to address comment:

- Staff have been reviewing the status of CCMP Action Plans (AP). For some AP, the process requires analysis to determine the optimal metric to track and report. This content will eventually populate a CCMP implementation status webpage with public-friendly content. It will likely follow a dashboard type format and show the number of ongoing action plans within priority areas such as Land Conservation, Monitoring & Research, etc. As the CCMP update is

now complete, development of this internal tracking system can move forward. Staff discussions continue on the selection of metrics. Completed tasks are being compiled and tracked for the internal tracking system.

- The website has undergone several improvements to incorporate AP tracking and highlights of each program area. These improvements include incorporating metrics to several AP efforts such as eelgrass restoration and the Mutts for the Bay program. Staff are also currently developing a GIS-based database of projects and efforts to showcase AP tracking in a public-friendly story map.

## **Program Implementation and Reporting – Outreach and Public Involvement**

Status: Ongoing

Feedback from PE process: EPA would like to see more outreach efforts specifically targeting visitors to Morro Bay. EPA would also like to see outreach materials geared toward a diversity of visitors.

Activities to address comment:

- Estuary Program continues to participate in the SLO Marine Protected Area Collaborative (SLOMPAC), a group of more than 28 nonprofits, agencies, colleges, tribal representatives, and community interest groups within the county who work together on monitoring, education, and enforcement issues within local Marine Protected Areas (MPAs). Our Community Engagement Coordinator serves as a co-chair for the group. The Estuary Program has been able to apply for, receive, and manage grant funding to allow for education and outreach efforts that all SLOMPAC members can use. This partnership has allowed for the development, printing, and distribution of E&O materials for use throughout the SLOMPAC area and beyond. In June 2023, the Estuary Program and the Monterey MPA Collaborative were awarded a grant to print E&O materials translated in both Spanish and Traditional Chinese that will be accessible online (with ADA-approved materials) and distributed to all MPA Collaboratives in California. In January 2024, 31,000 coloring books were printed and distributed to MPA Collaboratives across the state. The Estuary Program is co-leading these grant efforts.
- Educational content currently under development will be bilingual in English and Spanish and will be accessible online through the updated Education Corner on the Estuary Program website. For example, the Estuary Program updated the water calculator activity on this webpage to utilize an existing calculator with English and Spanish interfaces.
- The Estuary Program has created a formal educational partnership with Camp Ocean Pines in Cambria, CA. This environmental and outdoor education program hosts visiting schools from September to May and hosts traditional summer camps from June to August. Camp Ocean Pines works with local schools and students in the Central Valley, where many recurring visitors to Morro Bay reside. Camp KEEP (Kern Environmental Education Program) is now operating an outdoor school within the watershed, serving students from both Kern County and SLO County. The Estuary Program plans to work with Camp KEEP at their outdoor school as they become more established.
- The Estuary Program has created a formal educational partnership with local nonprofit One Cool Earth (OCE) to support Watershed Week. Estuary Program staff provided training to OCE educators in Morro Bay on watershed science. During the upcoming Watershed Week, OCE educators will deploy to 28 schools in San Luis Obispo County, reaching over 10,000 students

through school-wide activities, lessons, and conservation challenges with their Living in a Watershed lessons.

- The Estuary Program has relaunched the hosting of field trips for groups and schools visiting the watershed and estuary. The Estuary Program hosted a group of youth from the Fresno area under the California Health Collaborative Explore the Coast grant. In addition to educating these students about the estuary, watershed, and the coast, the Estuary Program provided information to the students on career paths and opportunities in the environmental field. In the 2023 to 2024 school year, the Estuary Program will be hosting a monthly field trip to Morro Bay for the Estuary Explorers Club from the Heartland Charter School, which is based in Bakersfield and has schools in various inland counties.
- The Estuary Program has established recurring tabling events at the Downtown San Luis Obispo Farmers Market and the Morro Bay Main Street Farmers Market, which heavily target visitors to the area. The popular Downtown San Luis Obispo Farmers Market brings in hundreds of people every week. The Estuary Program has tabled at this market three times since March 2023 and directly reached approximately 350 people.
- Additionally, the Estuary Program has translated and printed several brochures in Spanish, including our Bird Guide, our main Estuary Program brochure, and others. These are available and distributed through our Nature Center, at events, etc.
- The Estuary Program has established a regular magazine/newspaper column with Morro Bay Life News. This publication is available around Morro Bay and is a popular local and visitor publication that showcases events and local news. The column will highlight Estuary Program accomplishments and events.

## **Water Reuse and Hazard Mitigation**

Status: Ongoing

Feedback from PE process: EPA encourages projects such as the Pennington Creek rainwater catchment project to help address future water supply challenges. EPA recommends further consideration of the stressors identified in the Climate Vulnerability Assessment (CVA) to determine potential hazard mitigation projects. EPA would like, where possible, for the Estuary Program to establish pre-disaster partnerships and post-disaster approaches to conduct monitoring and to identify CCMP Actions that would assist in building resilience to hazards and the changing climate.

Activities to address comment:

- Multiple efforts are underway under the Bipartisan Infrastructure Law (BIL) funding to address water conservation and climate change. A groundwater monitoring well has been installed to support safe drinking water for the community of Los Osos. Expanded drought monitoring work is underway, with the completion of the installation of additional water level sensors and expanded dry season flow monitoring. Data will be collected over the next three years for an analysis to help target locations and landowners for potential water conservation projects. Cal Poly continues to collect, review, and share data collected by bay water quality sensors funded through BIL. The data helps to accurately track climate change impacts on bay water quality and factors that impact eelgrass health. Planning and coordination on stormwater management efforts have begun with partners such as Camp San Luis Obispo Army National Guard Base.
- A partner effort is underway to expand and improve the rainwater storage capacity at Pennington Creek. Creek Lands Conservation (CLC), Cal Poly, and the Coastal San Luis Resource

Conservation District (CSLRCD) have funding to increase rainwater catchment capacity and to pursue changes to Cal Poly's water rights. Engineering designs are at the 65% level. The project will utilize the existing riparian wells to pump water into the tanks during high flow events and install two additional tanks to provide more of Cal Poly's water needs during the dry season. Work is underway by CLC on the water rights changes and permitting needed for the effort.

- The Estuary Program conducts monitoring and maintenance on the Chorro Creek Ecological Reserve restoration project, which reconnected the creek to its floodplain. Staff are exploring options and funding for addressing impacts to the site from winter storms. Staff are also planning for further monitoring like lidar and cross-section surveys on the side channels and intends to fund this work through the FY25 320 workplan.
- The Habitat Restoration Strategy, an ancillary document to the CCMP, outlines challenges to habitat and establishes targets to measure habitat health. The plan is undergoing additional work based on EPA comments with a focus on presenting the information by habitat type and developing measurable targets. Many of the threats to habitat such as surface water flow, water quality parameters, changes in wetland areas, etc. are impacted by the challenges outlined in the CVA. The plan incorporates and builds off the Estuary Program's CVA, incorporating climate considerations as applicable. The plan also outlines projects and efforts to mitigate these potential hazards.
- The impacts from the large winter storms of 2023 are still being addressed and have increased partnership opportunities. The Estuary Program is working with the San Luis Obispo Council of Governments (SLOCOG) and the CSLRCD on projects to address potential flooding of infrastructure and impacts to habitats that are expected from climate change impacts. Additionally, two BIL-funded projects are underway to address climate resilience. A project with USGS addresses tidal march impacts from sea level rise. A historical ecology study with San Francisco Estuary Institute (SFEI) will inform conservation and restoration efforts in our most sensitive habitats to help increase climate resilience.