
MORRO BAY NATIONAL ESTUARY PROGRAM



**OUR
COLLECTIVE
IMPACT
2024**

PROTECTING AND RESTORING MORRO BAY
FOR PEOPLE AND WILDLIFE SINCE 1995

A NOTE FROM THE EXECUTIVE DIRECTOR



Friends of the Morro Bay National Estuary,

Looking back on 2024, we celebrate a year of progress and collaboration in protecting and restoring Morro Bay. This year marked the remarkable recovery of eelgrass beds, which now span 750 acres, showcasing the resilience of our ecosystem and the value of our ongoing monitoring and restoration efforts. We also worked to improve water quality in the bay by collaborating with partners to enhance stormwater management and implement sustainable practices. Efforts to improve fish passage on San Luisito Creek reflect our commitment to supporting threatened species like steelhead trout to foster watershed biodiversity. Volunteers played a vital role by collecting water quality data and monitoring invasive species to provide valuable insights for adaptive management.

Community engagement continued to flourish, strengthening the connection between people and the natural resources of Morro Bay. Over 700 students participated in hands-on conservation and learning experiences, while collaborations with partners like Cal Poly expanded environmental education and stewardship programs. Initiatives like teacher training workshops and field trips inspired the next generation to care for and protect this incredible estuary.

As we move forward, we remain focused on addressing challenges like climate change, habitat loss, and watershed health. With the support of our community, partners, and volunteers, we will continue to ensure that Morro Bay thrives as a vibrant and resilient ecosystem for generations to come.

With gratitude and optimism,

Melodie Grubbs, Executive Director

Cover photo courtesy of Paul Irving

ESTUARY PROGRAM STAFF 2024

Melodie Grubbs | *Executive Director*

Ann Kitajima | *Assistant Director*

Chrystina Newton | *Finance & Operations Administrator*

Carolyn Geraghty | *Restoration Program Manager*

Jenn Fields | *Restoration Coordinator*

Riley Hine | *Community Engagement Projects Manager*

Forest Lurz | *Education & Outreach Coordinator*

Makenzie O'Connor | *Monitoring Projects Manager*

Nick Soares | *Monitoring Coordinator II*

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Ben Grassman | *Former Monitoring Technician*

Natalie Trane | *Former Environmental Planning Intern*

THE BAY FOUNDATION OF MORRO BAY 2024

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2024 AT A GLANCE

2024 presented us with many opportunities to continue to protect and restore the Morro Bay estuary and watershed. We held monitoring and restoration volunteer events, cleanups at Morro Rock, educator workshops, and hosted many field trips. As we head into our 30th year as a program, we are excited to celebrate where we have been and where we are headed.

33
FIELD TRIPS

17
STUDENT
FELLOWSHIPS

7
VOLUNTEER
EVENTS

20,000
VISITORS TO THE
NATURE CENTER

VOLUNTEERS BY THE NUMBERS



335+
VOLUNTEERS

VOLUNTEER HOURS

550 HOURS
MONITORING

380 HOURS
MUTTS FOR THE BAY

75 HOURS
RESTORATION

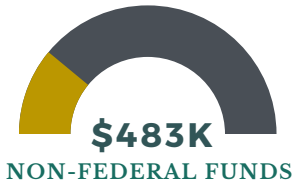
437 HOURS
STUDENT FELLOWSHIPS

250 HOURS
CLEANUPS

FUNDING AND EXPENSES

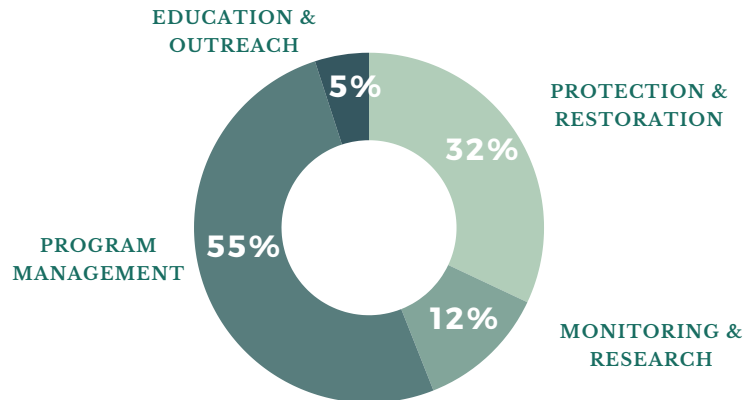
INCOME

These two graphics show the portion of Estuary Program income from federal and non-federal sources. Non-federal sources include donations, volunteer hours, and state and private grants.



EXPENSES

This graphic shows the portion of funds spent in each program area for the 2024 fiscal year.



MUTTS FOR THE BAY HIGHLIGHTS



Our Mutts for the Bay program maintains a network of 36 dog waste bag dispensers throughout Morro Bay and Los Osos with the help of a dedicated group of volunteers. The program is supported by donations from individuals and local businesses, as well as a generous grant from the Harold J. Miossi Charitable Trust. This program not only provides free dog poop bags throughout the community but also educates folks on how to be eco-friendly dog owners. Stay tuned for new materials from our Mutts for the Bay program and catch us at farmers markets and Mutts for the Bay cleanup efforts at dog-friendly parks and trails!

16
VOLUNTEERS

330K
BAGS USED IN 2024



IMPROVING SENSITIVE HABITATS THROUGH INVASIVE SPECIES MANAGEMENT

To preserve native habitat within the watershed, this past year the Estuary Program led multiple efforts to manage invasive species (non-native organisms that can spread rapidly and harm the environment) including iceplant on the sandspit, European sea lavender in the tidal marsh, and giant reed in the Chorro Creek sub-watershed.

We worked with partners and volunteers to manage iceplant (*Carpobrotus* spp.) on the sandspit. This effort protects fragile dune habitats, as iceplant can alter dune function, outcompete native and sensitive plants, and increase erosion. Teachers from our Educator Workshop Series and crews from the California Conservation Corps successfully pulled over 10,000 pounds of iceplant during hand removal events. Overall, live iceplant cover has been reduced by over a third within 33 acres of the sandspit.

Invasive European sea lavender (*Limonium duriusculum*) in the tidal marsh threatens native biodiversity and localized populations of federally-listed endangered salt marsh bird's beak (*Chloropyron maritimum* ssp. *maritimum*). The Estuary Program, volunteers, and State Parks partners surveyed and manually removed 300 European sea lavender plants from locations around the bay, and we will continue these efforts until the plant is fully eradicated from the tidal marsh.

The Estuary Program funded a project to map invasive plant species along creeks in the Chorro Creek subwatershed with a focus on giant reed (*Arundo donax*), a plant which can displace native vegetation and constrict stream systems, increasing local flood risk. We are planning for removal efforts of giant reed in spring 2025, with the goal of eradicating it from the Chorro Creek subwatershed.

The Estuary Program continues to work with partners to implement invasive species management and improve habitat health to protect native biodiversity and sensitive species.



EDUCATOR WORKSHOP SERIES TO EXPAND EDUCATION OUTREACH

2024 marked the first year of our Coastal Ocean Literacy Educator Workshop series, which was designed to provide educators with curriculum, materials, and knowledge to bring ocean literacy principles, stewardship, and climate science to their classrooms. Participants spent time in the classroom and outdoors, including a day of environmental stewardship pulling iceplant on the sandspit. This series utilized outdoor education practices, nature journaling, and other techniques for reaching all grade levels. We were joined by 25 educators from all over California representing K-12 schools as well as outdoor education, State Parks, and other non-traditional teaching roles.

This series would not have been possible without the support of our partners at Cal Poly, California State Parks, and the Southwest Marine Educators Association, all of whom shared their valuable knowledge and broader insight with our attendees.

Following the success of the 2024 workshop, the Estuary Program is hosting a series in early 2025. Participants will also have the option to obtain a Project WET certification this year, which focuses on water education. Learn more and register at mbnep.eventbrite.com.

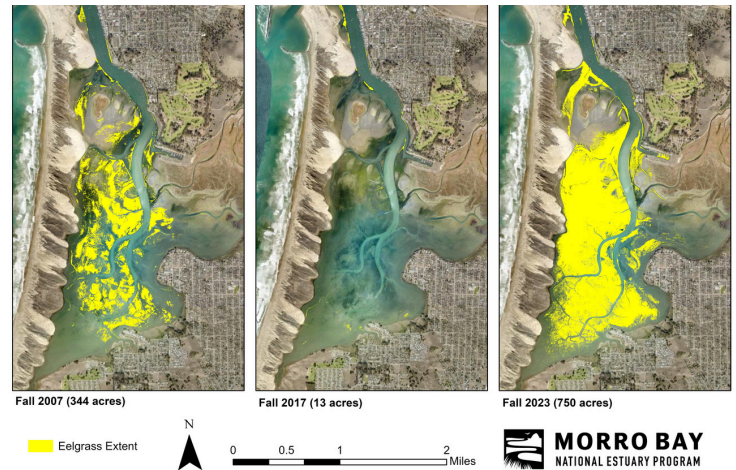


MORRO BAY'S ABUNDANT EELGRASS: 750 ACRES MAPPED IN 2023

Eelgrass is a valuable habitat in our estuary that improves water quality, sequesters carbon, and provides shelter and food for wildlife. The Estuary Program has mapped and monitored eelgrass for over 20 years. The 2007 map indicated 344 acres, after which the bay experienced a steep decline to only 13 acres by 2017. Our monitoring has indicated a recovery since then, and the most recent map from data collected in 2023 shows a record 750 acres of eelgrass in the bay.

It is likely that the eelgrass recovery was impacted by numerous factors, including climate fluctuations, erosion of the bay bottom, shifts in water quality, and restoration efforts. In particular, eelgrass beds likely flourished due to colder than average winters over the preceding two years as well as erosion that deepened the elevation of the bay floor. Our 2023 map showed that eelgrass covered over 70% of the estuary floor that falls within the ideal depth range for eelgrass. Additionally, eelgrass was found at higher than typical elevations. These results indicate that eelgrass is likely reaching its maximum spatial extent in the bay and that acreage may begin to decrease in the coming years.

While it's difficult to predict the future of eelgrass in the bay, the rapid changes that eelgrass can experience clearly indicate the need for robust and regular monitoring efforts. We are currently planning for the creation of a 2025 baywide eelgrass map and seasonal monitoring to track the health of this plant and of our estuary as a whole.



ONE COOL EARTH BRINGS GARDEN EDUCATION TO OUR WATERSHED

Our Community Project Program gives us an opportunity to partner with individuals and organizations on monitoring, restoration, and education projects to protect Morro Bay and its watershed.

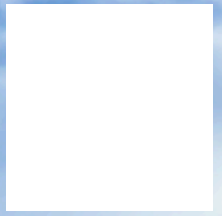
School gardens provide a unique opportunity to get kids out of the classroom and immersed in lessons to increase their environmental literacy. One Cool Earth (OCE) is a local nonprofit that works throughout San Luis Obispo County to bring curriculum and outdoor education into our schools. The Estuary Program partnered with OCE to provide a garden education program at Baywood Elementary in Los Osos. Through the 2023 to 2024 academic year, OCE taught lessons for Baywood students that equated to 18 lessons each for the school's 300 students, provided curriculum support for teachers, and organized activities, workdays, and fieldtrips to support their lessons. Student evaluations at the end of the year demonstrated the shift in student knowledge, skills, attitudes, and behaviors around watershed stewardship. Due to the positive response to the presence of OCE on campus, the program will continue for the next two years with financial support from the Baywood Elementary PTA and outside grants. To learn more about OCE, visit www.onecoolearth.org



Photo courtesy of One Cool Earth



MORRO BAY NATIONAL ESTUARY PROGRAM
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Quarterly Newsletter, *Between the Tides*,
at MBNEP.org/newsletter

Event details at MBNEP.eventbrite.com

VISIT & EXPLORE

Virtual Nature Center:
learn.MBNEP.org

Educational Activities:
MBNEP.org/education

Learn More on Our Website:
MBNEP.org

COME SEE US

We would love to see you at our events,
tabling booths, and volunteer opportunities!
Learn more at MBNEP.org/events

Come and visit our free Nature Center on the
Embarcadero! We have added new exhibits
and activities this year.

KEEP IN TOUCH

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