
MORRO BAY NATIONAL ESTUARY PROGRAM



OUR
COLLECTIVE
IMPACT
2021

PROTECTING AND RESTORING MORRO BAY FOR PEOPLE
AND WILDLIFE SINCE 1995

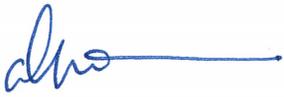
A NOTE FROM OUR FORMER EXECUTIVE DIRECTOR

At the end of 2021, I stepped down as the Executive Director of the Morro Bay National Estuary Program after twelve years at the organization and six years in this role.

Over the past decade, the Estuary Program has worked together as a community to achieve lasting conservation results. We have protected 2,300 acres and restored more than 400 acres of natural areas. Eelgrass meadows have grown to cover ten times the area measured in 2013. More than 300 volunteers dedicated hundreds of hours each year to collecting high quality data and ensuring restoration success. The Estuary Program now serves as a regional source of expertise regarding eelgrass restoration, creek water quality and habitat monitoring, and collaborative project development.

Leaving this organization has been a very difficult decision, but I am proud of our accomplishments and confident in our talented team. I am excited by what's to come in the watershed. The next phase for the Morro Bay National Estuary Program will deliver increased funding for on-the-ground projects through federal infrastructure funding, new developments in water quality monitoring techniques and technology, and improvements in habitats for steelhead, otters, and brant. I'm thankful for the opportunity I've had to serve this mission and to work with such a resourceful and dedicated community. Thank you for all you do to keep Morro Bay wild and full of life.

With gratitude,



Lexie Bell



WELCOMING A NEW EXECUTIVE DIRECTOR IN 2022

We are excited to welcome Melodie Grubbs as our new Executive Director. Melodie is passionate about coastal habitat restoration and conservation and brings experience from working with Sea Grant, the Santa Monica Bay National Estuary Program, and the Land Conservancy of San Luis Obispo County.

ESTUARY PROGRAM STAFF 2021

Lexie Bell | *Executive Director*

Ann Kitajima | *Assistant Director*

Chrystina Newton | *Finance & Operations Administrator*

Carolyn Geraghty | *Restoration Projects Manager*

Nick Soares | *Monitoring Coordinator*

Makenzie O'Connor | *Monitoring Coordinator II*

Rachel Pass | *Communications & Outreach Coordinator*

Ayla-Louise Mateo | *Environmental Planning Intern*

Andi Sprague | *Eelgrass Technician*

Sequoia Wade-Dunleavy | *Eelgrass Technician*

Karissa Willits | *Monitoring Projects Manager*

Christopher Hamma | *Environmental Projects Intern*

Troy Lawson | *Environmental Projects Intern*

THE BAY FOUNDATION OF MORRO BAY 2021

Board of Directors

Bill Henry | *President*

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CHORRO CREEK ECOLOGICAL RESERVE: A FLOODPLAIN IN RESTORATION

In 2021, the 4.8-acre restoration project at the Chorro Creek Ecological Reserve was put to the test and we are happy to report that it's doing its job well! Along with project partners and funding from the California Department of Fish and Wildlife and the State Coastal Conservancy, the Estuary Program led this restoration project, grading close to a half mile of side channel habitat to widen the floodplain on Chorro Creek, installing large woody debris, and planting diverse native shrubs and trees. The project was completed during fall of 2019 and the side channels stayed dry until January of 2021, when a large rain storm brought almost eight inches of rain to the Morro Bay area over a three-day period. This storm caused Chorro Creek to overflow into the newly restored floodplain. The plants on the project site were young and not fully established, and some were lost in the fast-flowing waters.



However, we are glad to report that the vast majority of new plants survived and will continue to slow the creek flow and shade its waters. The high flows also created deeper pools, which can provide habitat for fish during times when little water flows through the creek. The extended period of rain in December 2021 activated the floodplains for a second time. Both storms filled the creek channels in the project area, depositing more sediment onto the floodplain and keeping it from flowing down the creek and into the bay.

We are encouraged to see the project in action, reducing erosion, and providing habitat for steelhead trout, red-legged frogs, and other species. We will continue to track the evolution of the Chorro Creek Ecological Reserve project including the amount of sediment captured in the restored floodplain and the growth and health of the new creekside vegetation. Please subscribe to our blog at MBNEP.org/blog for future updates.

THANK YOU VOLUNTEERS

Given restraints on volunteering, our existing volunteers were able to do some great work this year!



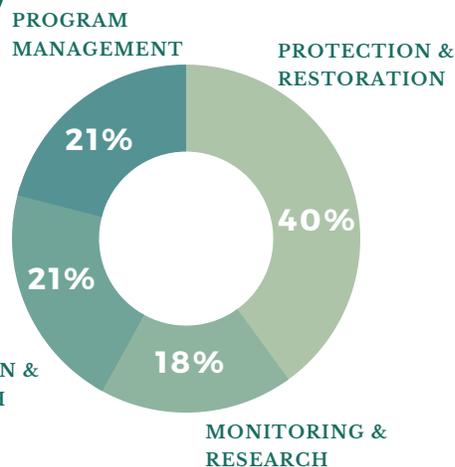
15 VOLUNTEERS



FUNDING AT A GLANCE

EXPENSES

This graphic shows the portion of funds spent in each program area for the 2021 fiscal year



INCOME

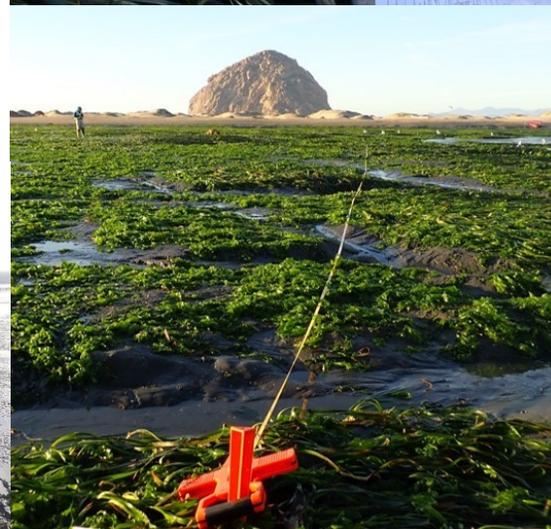
This graphic shows the portion of Estuary Program income from federal & non-federal sources. Non-federal sources include donations, volunteer hours, and state and private grants.



MONITORING EXPANDING EELGRASS HABITAT

Eelgrass, a flowering aquatic plant that puts down roots in the bay floor, is considered an important habitat type because of the benefits it provides to wildlife and water quality. In 2017, our mapping efforts documented a record low of only 13 acres. We have worked with Cal Poly, EPA, US Fish & Wildlife Service, and many other partners to monitor eelgrass health, research bay water quality, and conduct restoration with the goal of maintaining healthy eelgrass beds in the bay.

Our ongoing monitoring effort mapped an increase from 43 acres in 2019 to 146 acres in 2020. Cal Poly collected aerial images via drone in fall 2021, and we are analyzing them to determine the updated eelgrass acreage. Our goal is 313 acres of eelgrass based on historic acreages and studies identifying areas suitable for eelgrass. The recent rebound of eelgrass is a positive sign, and we are excited for our planned monitoring, research, and restoration efforts in 2022.



MARINE PROTECTED AREA COLORING BOOK

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MPA COLLABORATIVE: EXPANDING EDUCATION OUTREACH

In 2021, we worked with the San Luis Obispo and Monterey Marine Protected Area Collaboratives to rework and expand two popular bilingual education and outreach resources for kids. The MPA Coloring Book and the Coastal Explorer's Guide introduce kids to the wonders of the California coastline. In the updated versions of these books, you'll find 3D augmented reality coloring sheets that feature a lingcod, a California two-spot octopus, and a snowy plover. Students can color and then bring these animals to life using the

free Quiver 3D Coloring App on a smartphone or tablet. The app also includes educational games that allow you to experience a marine protected area through the eyes of the octopus and lingcod as you help each animal find food. Thanks to generous support from the California Ocean Protection Council and Coastal Quest, we were able to make these exciting updates and distribute 39,200 copies of each to MPA Collaboratives all along the California coast. Find them online at MPAcollaborative.org/kids.

COMMUNITY PROJECTS

Our Community Projects Program gives us an opportunity to partner with individuals and organizations on projects to protect and restore Morro Bay. Two projects were completed in 2021.

RESTORING HABITAT FOR MONARCHS & POLLINATORS

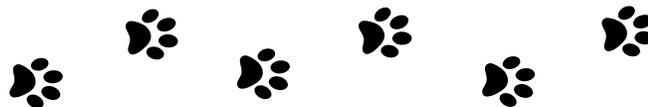
The Coastal San Luis Resource Conservation District (CSLRCD) implemented a project to enhance an area in the Sweet Springs Nature Preserve for monarchs and pollinators. Volunteers planted over 700 native plants, including Coast Live Oak, Coffeeberry, Coastal and CA Buckwheat, and more. CSLRCD staff designed an informational sign (below) for the site to highlight the role of monarchs and pollinators in a healthy ecosystem. This project will provide food and habitat for monarch butterflies and pollinators while also educating the public on the importance of these species to ecosystem health.



SUPPORTING WATERSHED EDUCATION WITH STATE PARKS

California State Parks led this effort to create a Watershed Protector Demonstration Station for the Natural History Museum in Morro Bay State Park. This station (pictured above right) provides an interactive demonstration of what happens when rainwater falls on different surfaces and how they are able to filter water and pollutants differently. Museum docents will use the station to help to educate visitors on the impact of ground cover and how it affects water quality.

MUTTS FOR THE BAY



Dog poop has about twice the amount of bacteria than human waste. This can be a huge concern for water quality in the bay. The Mutts for the Bay Program provides free dog waste bags to help ensure dog waste ends up in the trash, not the bay! This program is funded by dispenser sponsors, private donors, and a generous grant from the Harold J. Miossi Charitable Trust.

Instagram: @muttsforthebay

BAGS STOCKED IN MORRO BAY & LOS OSOS

342,300

19,000

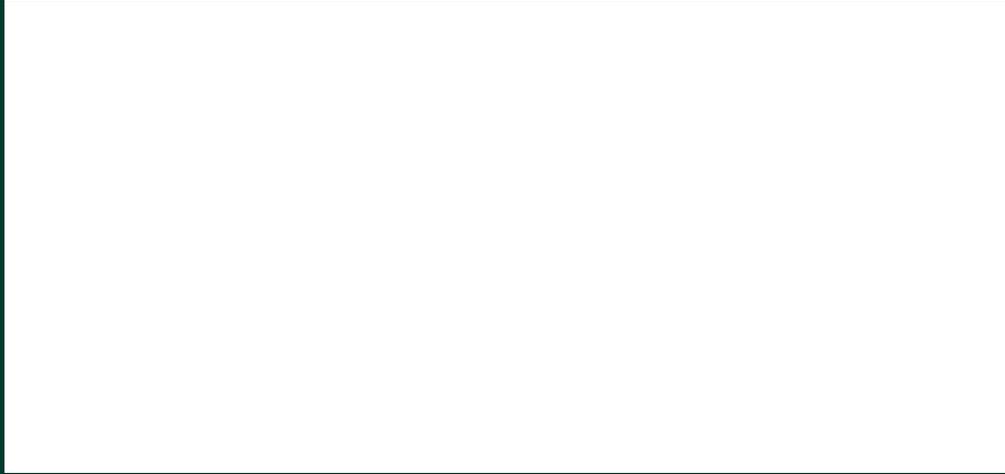
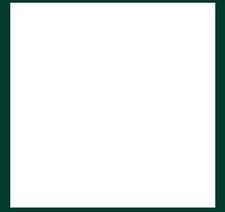
POUNDS OF DOG WASTE PRODUCED EACH WEEK IN MORRO BAY & LOS OSOS

DISPENSERS STOCKED & MAINTAINED

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MORRO BAY NATIONAL ESTUARY PROGRAM
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MORRO BAY, CA 93442



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