



# Our Collective Impact 2020



**MORRO BAY**  
NATIONAL ESTUARY PROGRAM

*Protecting and restoring Morro Bay for  
people and wildlife since 1995!*



## A Note from our Executive Director



Dear Friends,

We have such deep gratitude for your support during the unprecedented challenges of 2020. What a year it has been—in so many ways. We are glad and grateful to be here, continuing to work steadily toward a clean and healthy bay in partnership with all of you. Despite the challenges presented since the start of the pandemic, we have been able to restore eelgrass, collect water quality data, and share science with our community. Our monitoring team barely missed a beat, although we deeply missed our beloved volunteers, and our staff continued to develop new projects and partnerships.

The bay has provided so much solace, beauty, and rejuvenation during this historic upheaval. As more people have flocked to its shores and beautiful waters, the bay has faced increasing challenges. More trash is making its way to the water, wildlife disturbances are on the rise, and heavy trail use has impacted native habitats. 2021 will be a year to increase collaboration, find new solutions, and keep working toward clean water and healthy habitats. We look forward to continuing on this journey together; thank you for showing up for the bay!

Sincerely,  
Lexie

### Estuary Program Staff

Includes staff who worked all or part of 2020.

Lexie Bell | *Executive Director*  
Ann Kitajima | *Assistant Director*  
Chrystina Newton | *Finance & Operations Coordinator*  
Carolyn Geraghty | *Restoration Projects Manager*  
Philip LaFollette | *Interim Restoration Projects Manager*  
Rachel Pass | *Communications & Outreach Coordinator*  
Evelyn Barajas-Perez | *Communications & Outreach Specialist*  
Karissa Willits | *Monitoring Projects Manager*  
Makenzie O'Connor | *Monitoring Coordinator*  
Tim Delany | *Monitoring Coordinator*  
Blake Toney | *Monitoring Technician*  
Sequoia Wade-Dunleavy | *Eelgrass Technician*  
Sydney Wewerka | *Eelgrass Technician*  
Ayla-Louise Mateo | *Environmental Planning Intern*  
Chris Dedo | *Environmental Planning Intern*  
Christopher Hamma | *Environmental Projects Intern*

Learn more about our staff: [MBNEP.org/staff/](https://mbnep.org/staff/)

### The Bay Foundation of Morro Bay

Current Board of Directors

Bill Henry | *President*  
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Kris Vardas | *Treasurer*  
Tom Edell  
Sally Krenn  
Leonard Moothart  
Dr. Deanna Richards  
Shaunna Sullivan

Learn more about our board and other program partners at:

[MBNEP.org/board-committees/](https://mbnep.org/board-committees/)

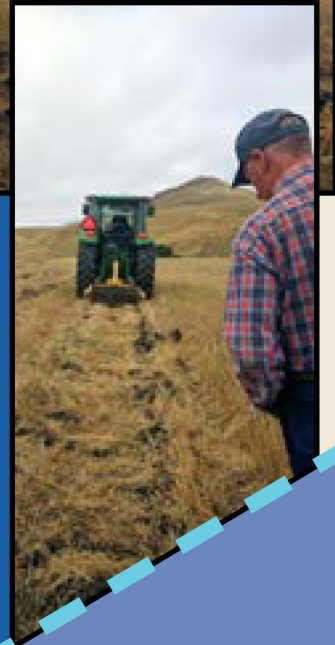


# Improving Water Quality in the Estuary

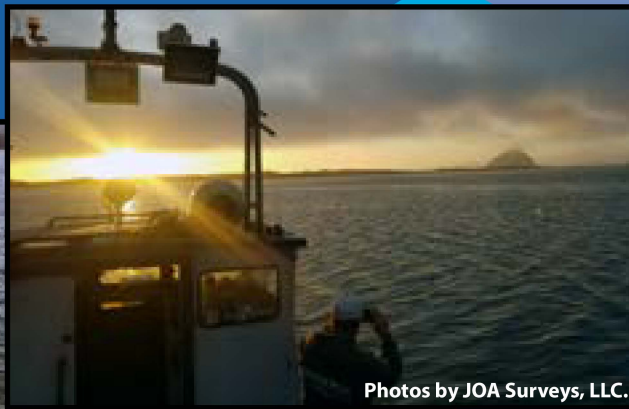


The Estuary Program received funding from the Resource Legacy Fund's Land Sea Connection Program to develop projects in the watershed that improve water quality in the estuary. The Estuary Program partnered with Coastal San Luis Resource Conservation District staff, who led outreach to 500 landowners, hosted a workshop, provided one-on-one technical consultations to 15 landowners, and developed six conceptual designs that can support future grants for implementation funding.

Projects included irrigation improvements, creek bank and gully erosion assessment, native revegetation, riparian fencing, bioreactors, and floodplain enhancement. An on-farm demonstration of keyline plowing was also completed on ten acres in the Los Osos Valley. Keyline plowing benefits soil health and forage production by increasing soil-moisture retention and root growth. This project resulted in outreach materials highlighting methods and benefits of best management practices to use in future landowner outreach efforts. Collectively, the projects identified will help protect estuary habitats and increase climate resiliency in the surrounding agricultural lands.



## A Changing Bay: Mapping the Bay Floor



Photos by JOA Surveys, LLC.

*Stations installed at the front and back bay measure tide height. This data helps calculate how much water the bay holds. How this number changes over time tells us about sedimentation.*

Morro Bay is an estuary, an area where freshwater from land mixes with the saltwater of the ocean. While estuaries naturally fill in over time, human activities are greatly accelerating this process. To better understand how the bay is changing over time, the Estuary Program conducted a topobathy lidar survey in spring of 2019. Sonar data collected by boat and lidar data captured from a plane were used to create a comprehensive map of bay-floor elevation. By comparing this recent survey to historic bathymetry maps, we can track changes in the bay over time.

A comparison of the recent survey to one from a decade earlier showed an increase in height of the sandspit, relative stability in the salt marsh, and erosion in the mid and back bay. This erosion was not expected, as this area is adjacent to where Chorro and Los Osos Creeks deliver watershed sediment to the bay. Cal Poly analysis of the data hypothesizes that the eelgrass loss in the area results in bare mudflats and faster moving water. This leads to more turbid (cloudy) waters, which blocks sunlight from reaching eelgrass plants. This cycle could at least partially explain the loss of eelgrass and the resulting erosion.



# State of the Bay



Every three years, the Estuary Program releases a State of the Bay report that gives an in-depth look at the health of the Morro Bay estuary and surrounding lands. It explores the health of eelgrass beds, steelhead trout, and native bird species; water quality in creeks and the estuary; restoration, conservation, and preservation of local lands; aquaculture in the bay; and other topics. Find expanded State of the Bay content including videos and interactive maps at [MBNEP.org/state-of-the-bay](https://MBNEP.org/state-of-the-bay).

To share the report information and to celebrate the Morro Bay estuary, we held a variety of State of the Bay companion events. These included our annual Morro Bay Estuary poetry contest, a bay-science trivia night, and three Morro Bay Science Explorations talks that featured experts on bay health, creek health, eelgrass, snowy plovers, wildlands restoration and conservation, and climate change. Though we moved some of these events online due to the pandemic, we were able to reach more than 850 champions of the bay with these events.



**850+** people attended

**9** State of the Bay events.

**5,000+** acres of land protected.

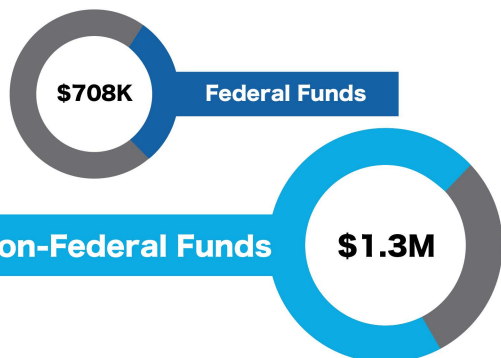
## Estuary Program Funding at a Glance

### Thank you, donors!

Get to know our donors  
and give today at  
[MBNEP.org/donate](https://MBNEP.org/donate).

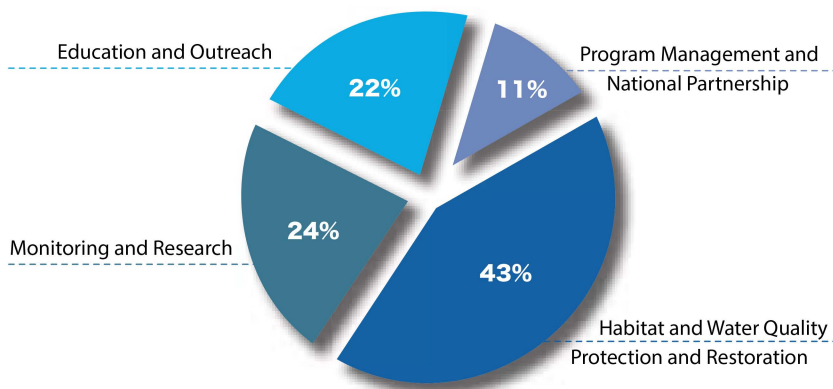
### Income

This graphic shows 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 2020 fiscal year.





## Mutts for the Bay

The 5,500 dogs that live in Morro Bay and Los Osos produce about 19,000 pounds of poop each week! The Mutts for the Bay program helps make sure this dog waste ends up in the trash can, keeping harmful bacteria out of the bay. The Mutts for the Bay program is funded by dispenser sponsors, private donors, and a generous grant from the Harold J. Miossi Charitable Trust.

33

Number of dog waste dispensers stocked and maintained by the Mutts for the Bay Program.

Thank you, volunteers!

224  
Volunteer  
Hours

Prior to COVID,  
we were able to  
complete...

42

Visits for Bay Water  
Quality Monitoring

52

Visits for Bacteria  
Monitoring

93

Visits for Creek Water  
Quality Monitoring

## Building Partnerships: Community Projects

Our Community Projects Program fosters local efforts that work toward Estuary Program goals.

**Tracking Wildlife:** Dr. John Perrine of Cal Poly brought his expertise in wildlife tracking to this project, which involved deploying cameras throughout the watershed to capture images of local wildlife. This data could support prioritizing where to restore land or expand conservation efforts to help maintain the migration corridors that allow wildlife to freely move about. Deer, coyotes, gray foxes, and bobcats were frequently detected by the cameras. Mountain lions were also sighted, with an image of a mother and two cubs captured during their nocturnal sojourn.

### Expanding Youth Education Opportunities:

Making estuarine science and environmental stewardship information available to as many students as possible is a priority for the Estuary Program. So, we were pleased to fund the San Luis Obispo Marine Protected Area (MPA) Collaborative's Community Project, which translated and printed a Spanish version of a popular MPA-focused activity booklet. This full-color activity booklet invites kids into the underwater world of California's MPAs and encourages them to envision themselves as scientists and stewards of our natural world. These guides are available at [MBNEP.org/kids](http://MBNEP.org/kids).

