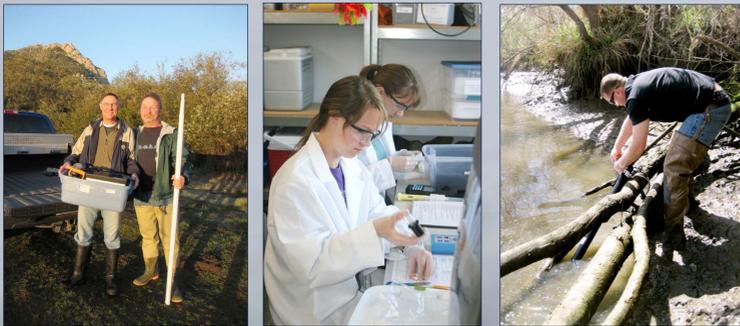


# Consistency, Communication and Quality: Keys to Incorporating Volunteer Monitoring Data in Morro Bay, California



In 2011, program volunteers contributed 1,225 hours to monitoring. Collectively they conducted over 373 water quality site visits and collected and analyzed 397 bacteria samples.



## Consistency

The Morro Bay National Estuary Program's Volunteer Monitoring Program conducts all monitoring in accordance with the program's comprehensive Quality Assurance Project Plan. In addition to meeting EPA guidelines, the plan also meets California state program (SWAMP) standards. Two monitoring program staff coordinate with state and local agencies to ensure that protocols, standards and data storage formats stay up-to-date.

Program staff work closely with volunteers to verify that data is collected safely and consistently in the field and labs. In addition to training volunteers on protocols and methodologies, staff actively seek feedback from volunteers on ways to clarify and improve monitoring techniques.



and the Grassy Bar Oyster Company

## Communication

Quickly and effectively communicating monitoring data to partner agencies has been key to the program's success. The program generates a comprehensive annual data report each year, as well as brief data summaries focused on specific monitoring projects. Access to geographic information systems (GIS) has enhanced the program's ability to communicate results with partners.

Timely data management in a digital format allows staff to generate up-to-date summaries to interested partners. Maintaining open communication with local and regional stakeholders ensures that data collection efforts remain relevant and help fill critical information gaps.



Volunteers have helped collect salinity data to help the US Fish and Wildlife Service determine suitable habitat areas in Morro Bay for endangered Tidewater Gobies.



Cal Poly and the California Conservation Corps have used water quality and flow volume data to guide plans for a rainwater harvesting program to offset riparian well withdrawals near Pennington Creek.



Riparian fencing protects sensitive habitats from grazing impacts and limits pathogenic bacteria inputs to waterways. Providing off-creek water sources enables continuation of rangeland cattle operations.



San Luisito Creek is a perennial tributary creek to Morro Bay.

## Data in Action

The program encourages state and local partners to utilize volunteer-generated monitoring data to guide management and restoration efforts. The variety of data available has allowed for incorporation at many scales to address multiple issues.

- The Central Coast Water Board incorporates creek water quality data into their 303d assessments.
- California Department of Public Health and local oyster companies actively review creek and bay bacteria monitoring results to help guide their bacteria monitoring efforts.
- California Department of Fish and Game reviews volunteer water quality and macroinvertebrate data to inform anadromous fisheries restoration efforts.
- San Luis Obispo County Flood Control and Water Resources District utilizes the program's flow volume data to help fill data gaps at select sites.

## Addressing Impairment

Since 2002, program volunteers have monitored bacteria concentrations in watershed creeks and Morro Bay to determine if waters are safe for recreation. By 2008, it was apparent that *E. coli* levels in San Luisito Creek were consistently problematic, exceeding safe swimming levels in 84% of test results.

The program worked with local agencies to reach out to nearby landowners, and with their support, expanded monitoring efforts along the creek. Data indicated that cattle on private creek side ranches could be the major *E. coli* contributor. Program staff and partners worked closely with two ranches to fence cattle out of more than 13,000 feet of the creek and install an alternate source of water.

Post-project data showed a significant decline in creek bacteria levels. Through a volunteer monitoring effort, the program identified a problem area, worked with local partners to address the issue, and demonstrated measurable water quality improvements.

For more information:

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