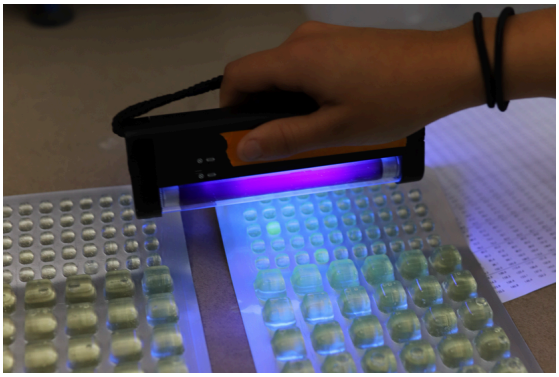
SAN LUIS OBISPO BLUE WATER TASK FORCE

2024 Water Quality Monitoring Annual Report

PROGRAM OVERVIEW



The Blue Water Task Force (BWTF) is the Surfrider Foundation's volunteer-run water quality monitoring program that provides critical information to help protect public health at local beaches. Water samples are tested for enterococcus, a fecal indicator bacteria that signals the possible presence of human or animal waste in the water. Elevated levels of enterococcus increase the likelihood that other harmful pathogens, which can make people sick, may also be present.

The goal of the Blue Water Task Force is to fill in monitoring gaps and quickly communicate with the public where it's safe to get in the water. Water quality results from the San Luis Obispo BWTF are compared to the standards used by the California State Water Resources Control Board to issue swim advisories, specifically when levels exceed 104 colony-forming units of enterococcus per 100 mL sample (104 CFU/100mL). Beachgoers should take precautions when swimming, surfing, or recreating after heavy rain events. Avoid any areas where warning signs for high bacteria are posted. Water quality data is available at bwtf.surfrider.org.

WHERE, WHEN, AND HOW WE TEST

San Luis Obispo Chapter volunteers collect samples weekly from 20 different locations and bring them to one of three labs to be processed. One lab is set up at the Central Coast Aquarium in Avila Beach. The Chapter also partners with the Cal Poly Surfrider Student Club, where club members collect samples and process them in a lab set up within Cal Poly's Biology Department. The third lab is located at a local school in the northern part of SLO County.

SLO BWTF has established a sampling schedule to complement the beach monitoring program conducted by the SLO County Environmental Health Department. The County tests on Mondays, while the chapter collects samples later in the week, so there are fresh test results on Fridays to inform safe recreation over the weekend.

Map 1. SLO BWTF Sites that were sampled in 2024.

DATA SUMMARY

TABLE 1: PERCENT OF SAMPLES EXCEEDING HEALTH STANDARDS (>104 MPN/100ML) IN 2024

SITE NAME	TOTAL SAMPLES	% HIGH BACTERIA (>104 MPN/100ML)
Avila Pier	25	16%
Cayucos Pier	3	**67%**
Morro Bay, The Pit	3	**67%**
Pico Creek	5	20%
Pismo Beach, Estuary	24	**96%**
Pismo Beach, Ocean	25	12%
Pismo Creek Bello Bridge	20	**60%**
San Luis Creek #3	22	**91%**
San Luis Creek at San Luis Bay Dr. #2	22	**77%**
San Luis Creek Estuary	18	**72%**
San Luis Creek Mouth	23	**70%**
San Luis Creek, Ontario Road	21	**86%**
San Luis Creek, San Luis Bay Drive	21	**90%**
San Simeon Cove	8	0%
San Simeon Cove Lagoon	9	0%
San Simeon Creek	6	0%
Santa Rosa Creek	10	0%
Sewers	19	5%
The Marre Weir	19	**74%**
Toro Creek	3	0%

Table 1. Indicates the percentage of total samples taken at respective sites that exceeded California State Water Resources Control Board standards for Enterococcus bacteria (>104 mpn/100mL). Note that the number of total samples is not consistent across sites. The lab at the Avila Aquarium operated continuously in 2024, while testing was interrupted at the North County and Cal Poly labs due to volunteer turn-over and renovations.

KEY OUTCOMES

In 2024 SLO BWTF tested 306 samples from 20 sites. At eleven sites, over 50% of the samples exceeded state standards (Table 1). Sites with consistently high bacteria levels, including San Luis Obispo Creek sites, Marre Weir, and Pismo Beach Estuary, are all located in creeks or estuaries. Higher pollution rates at these sites may be attributed to land-based runoff from upland areas that is carried by freshwater streams and released into the estuaries. Comparatively, ocean beaches tend to have lower percentages of bacterial exceedance, likely due to dilution. Yet, Avila Pier, which is a popular beach, had 16% of samples exceeding state health standards as it is located at the outlet of the contaminated San Luis Creek.

High bacterial counts indicate the presence of human and/or animal waste in these waters, which may threaten public health. Potential sources of pollution include leaking septic systems, sewer line failures, animal agriculture, pets, birds, and other wild animal waste. Families, ocean users, and the public should be aware of areas with poor water quality conditions and seek to avoid them.

TRACKING POLLUTION SOURCES

With growing community concern, the chapter launched a pollution source study in August 2024, to better understand what's causing high bacteria levels at San Luis Creek and Avila Beach, and the estuary and ocean beach at Pismo Beach. Since then monthly testing for enterococcus and eDNA has been conducted to identify which species are contributing to contamination. Fecal indicator bacteria tests show the presence of waste from warm-blooded animals but can't pinpoint the source—more specific data is needed to trace and fix the problem.

Enterococcus samples are processed in the chapter's lab, while eDNA samples are sent to Jonah Ventures to detect E. coli and DNA from humans, cows, dogs, poultry, sheep, and swine. The study is set to conclude in July 2025 after a full year of sampling.

Once the study is complete, the chapter will review the results with the newly formed Avila Beach Bacteria Workgroup—made up of local and state environmental agencies—to determine next steps. The ultimate goal is to identify and eliminate pollution sources in the San Luis and Pismo Creek Watersheds, helping restore safe, clean beach water for the community.