
MAUI BLUE WATER TASK FORCE

Water Quality Monitoring 2020 Annual Report

PROGRAM OVERVIEW

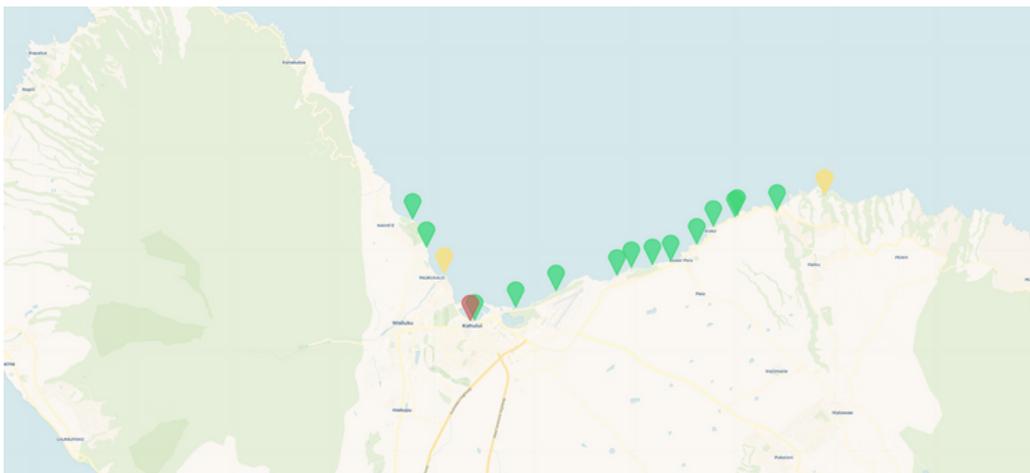
The Blue Water Task Force (BWTF) is the Surfrider Foundation's citizen/community science program that provides critical water quality information to protect public health at the beach. Water quality samples are tested for the presence of *Enterococcus*, a fecal bacteria that indicates the presence of human or animal waste in the water. Elevated levels of enterococcus increase the likelihood that other pathogens that can make people sick may be present.



The goal of BWTF is to fill in monitoring gaps and quickly communicate with the public where it is safe to swim and where bacteria levels are elevated. Water quality results are compared to the standards used by the Hawai'i Department of Health (HDOH) to make beach closure decisions, specifically 130 colony forming units of enterococcus per 100mL sample (130 CFU/100mL). Beachgoers should take precautions swimming, surfing, or recreating after heavy rain events for 24-48 hours. Do not enter brown water areas or where there is a warning sign for high bacteria levels. Water quality data can be accessed at bwtf.surfrider.org.

WHERE WE SAMPLE

In 2020, Maui Chapter volunteers sampled at 17 beaches once per month. Samples are processed at the University of Hawai'i Maui College in partnership with Donna Brown and her Marine Biology students. Sample sites and testing schedules augment the HDOH's beach monitoring program as well as citizen-science monitoring on West and South Maui. BWTF sites are chosen based on frequent recreational use and community concerns about water quality conditions along Maui's North Shore.



MAUI BLUE WATER TASK FORCE

Water Quality Monitoring 2020 Annual Report

2020 RESULTS

Each site was sampled at least 5 times throughout the year. Due to the COVID-19 pandemic, all testing was halted from April through August 2020.

Table 1 shows the percentage of samples that exceeded state health standards at each of the 17 sites. At two sites, over 50% of the samples exceeded state standards (**Table 1**). Sites with higher bacteria levels, including Māliko Bay, Waiehu Stream, and Wailuku Stream, are all located at stream mouths. Higher pollution at these sites may be attributed to land-based runoff from upland areas that is carried by freshwater streams and released into the ocean.

High bacterial counts indicate the presence of human or animal waste in these waters, which may threaten public health. The data is also important in identifying chronically polluted sites that should continue to be prioritized for public health and safety. Families, ocean users, and the public should be aware of areas with poor water quality conditions and seek to avoid them.

Eleven sites did not have any samples that exceeded HDOH health standards. The coastline from Kanahā to K Bay experiences consistently high winds and wave energy that help flush out nearshore waters in comparison to more protected and stagnant beach areas where pollutants can persist near the coast longer.

SITE NAME	# SAMPLES COLLECTED	% EXCEEDANCE (samples above 130 mpn/100mL)
Maliko Bay	6	50%
Waiehu Stream	6	50%
Wailuku Stream	6	33%
Ho'okipa Beach Park W	6	17%
Ho'okipa Beach Park E	6	17%
Waihe'e Beach Park	6	17%
K Bay	5	0%
Kahului Treatment Plant	6	0%
Kanahā - Kalia Stream	6	0%
Kanahā Beach	6	0%
Kū'au Bay	6	0%
Mama's Beach	6	0%
Sugar Cove	6	0%
Baby Beach	6	0%
Baldwin Beach	6	0%
Pā'ia Bay	6	0%
Kahului Harbor	6	0%

Table 1. Percent of samples at each site that exceeded state health standards of 130 cfu/100 mL in 2020. Note BWTF results are recorded as Most Probably Number MPN/100 mL due to our testing methods.

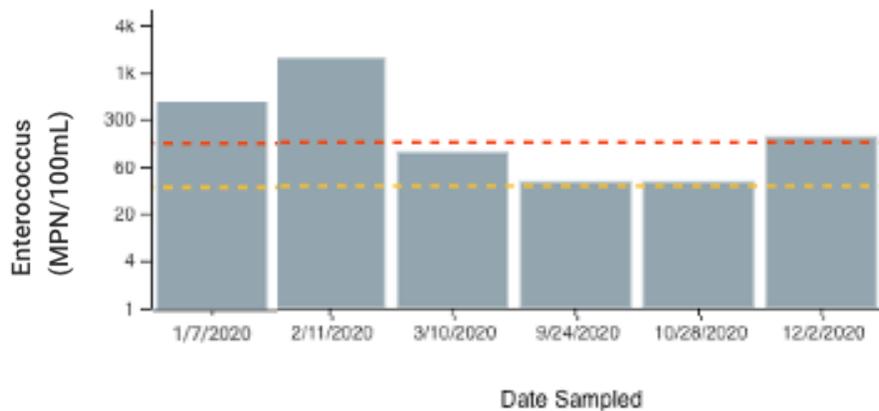
MAUI BLUE WATER TASK FORCE

Water Quality Monitoring 2020 Annual Report

PRIORITY SAMPLE SITE: MĀLIKO BAY

Māliko Bay has been sampled by the Maui Chapter since 2017 and consistently has some of the highest bacterial readings of the Chapter's sites. Māliko Stream enters directly into Māliko Bay, likely contributing to high bacteria. Ocean users should be aware that high bacterial counts indicate there is human or animal waste present in these waters, which may threaten public health and nearby ocean habitats.

Māliko Bay Results



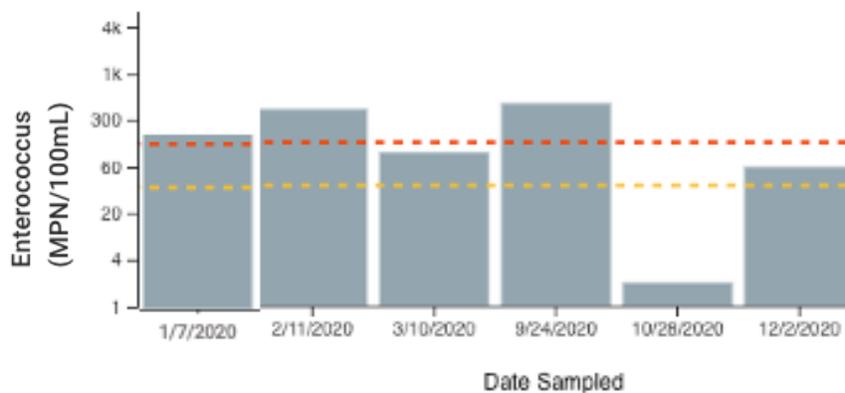
50%

OF MĀLIKO SAMPLES
EXCEEDED HEALTH
STANDARDS FOR
BACTERIAL COUNTS

PRIORITY SAMPLE SITES: WAIEHU STREAM

In 2020, 50% of the samples collected at Waiehu Stream exceeded health standards. The site is located at a stream mouth and thus receives higher amounts of land-based runoff. Families with children that visit Waiehu should be aware of the poor water quality conditions that may result after heavy rains or storms.

Waiehu Stream



50%

OF WAIEHU SAMPLES
EXCEEDED HEALTH
STANDARDS FOR
BACTERIAL COUNTS