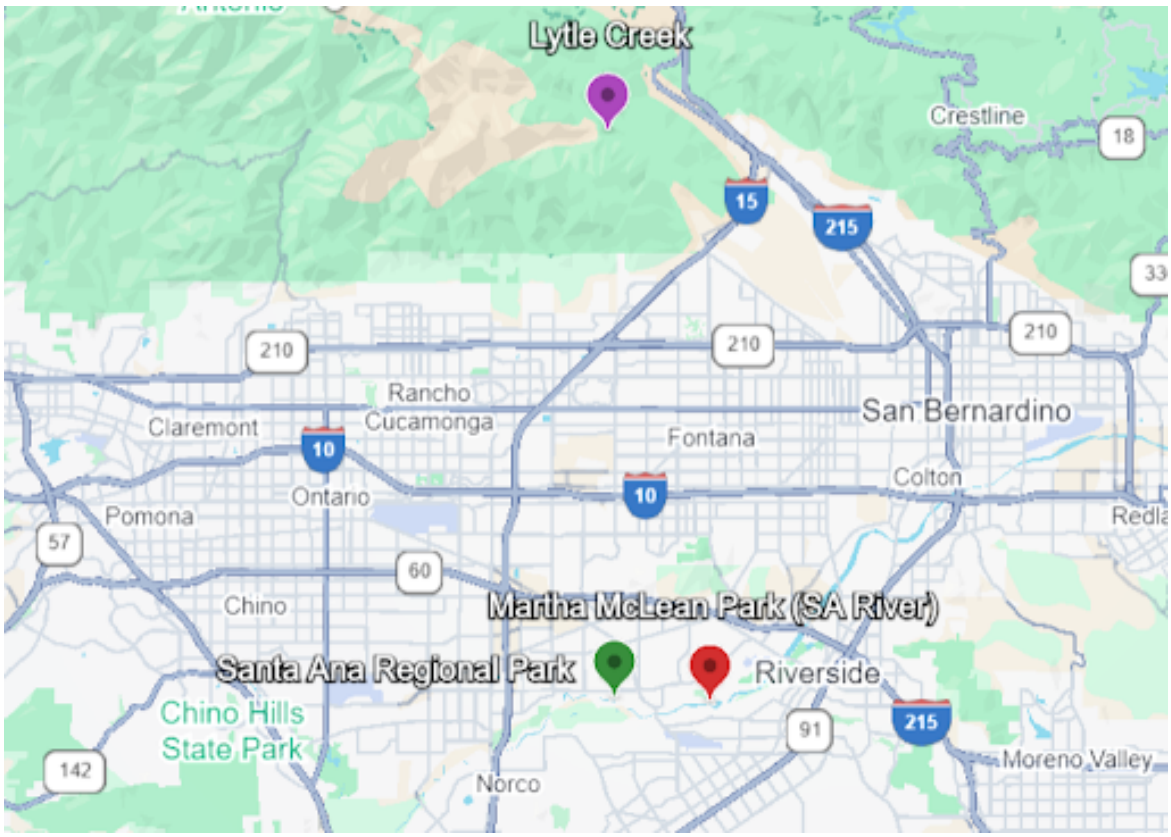
Inland Empire Waterkeeper Beach Water Monitoring Pilot Program
Riverside & San Bernardino County
January 1, 2025- June 30, 2025



Inland Empire Waterkeeper (Waterkeeper) is a grassroots, non-profit water quality organization with a mission to protect water quality and promote watershed resilience in the Upper Santa Ana River Watershed. We work in partnership with groups in the public and private sectors in an effort to achieve clean, sustainable, and accessible water resources for the Inland Empire region. Waterkeeper develops and delivers impactful programs focused on advocacy, education, research, restoration, and enforcement.

The Waterkeeper Water Monitoring Program was a pilot project designed to develop water quality data at popular recreation areas in the Inland Empire. Through this pilot project,

we developed a Quality Assurance Project Plan to guide the effort and reactivated our in-house water quality lab at the Waterkeeper office. We also developed a River Watch human use monitoring program and conducted sanitary surveys using the United States Environmental Protection Agency's (USEPA) Sanitary Survey App. The reagents and other supplies for the bacteria testing were provided through a grant from the USEPA. We thank Ibrahim Goodwin from the USEPA and Erick Burres from the California State Water Resources Control Board for their help in developing the project.

This report will focus on data on the water quality of local waterways and parks in the Inland Empire from January through June of 2025. The areas we monitored for this report include Lytle Creek and the Santa Ana River at Martha McLean- Anza Narrows Park (Riverside) plus Santa Ana Regional River Park (Jurupa Valley). The goal of the Waterkeeper Water Monitoring Program is to provide water quality information to local communities and beach users so they can make informed decisions about where they go for water recreation in the Inland Empire.

Data Summary

- The indicator Bacteria we monitored for included *E.coli*, Enterococcus and Total Coliforms. *E.coli* is considered the best indicator for fresh water use, with Enterococcus used as a secondary indicator. All samples were 100 ml grab samples that were processed using the USEPA approved IDEXX methods such as the Quanti-Tray test which is used to quantify bacterial contamination in water samples. All data was compared to California state standards for single samples.
- During this period, at Lytle Creek we monitored *E.coli* 6 times, total coliform 12 times, and Enterococcus 8 times. At Martha McLean Park, E.coli was monitored 5 times, total coliform 10 times, and enterococcus 8 times. For Santa Ana Regional Park, *E.coli* was monitored 6 times, total coliform 11 times, and enterococcus 6 times.
- Lytle Creek: *E.coli* met state water quality standards for bacterial levels about 83% of the time.
- Martha McLean: *E.coli* samples met the state standard for safe bacterial levels 60% of the time.
- Santa Ana Regional Park: *E.coli* met the state standard for safe bacterial levels about 83% of the time.
- The water samples at Lytle Creek met the state enterococci standard about 87% of the time. The bacterial levels at Martha McLean and Santa Ana Regional Park exceeded the state standard for water quality 100% of the time.

Lytle Creek

Lytle Creek is found at the eastern extension of the San Gabriel Mountains. This area is distinguished by its chaparral habitat full of streams and riparian vegetation such as coastal sage brush and sugar pine. Lytle Creek has become a popular recreational destination for residents of surrounding cities like Fontana, Rialto, San Bernardino, and Colton. Lytle Creek

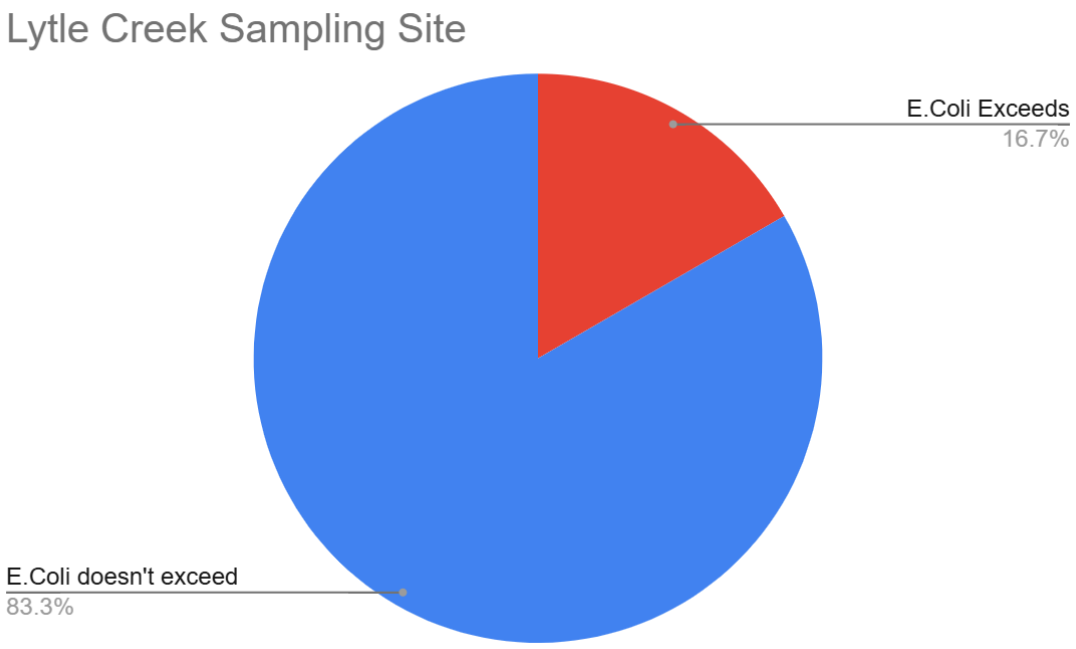
offers diverse recreational activities, including fishing, aquatic play, hiking, camping, and picnicking.

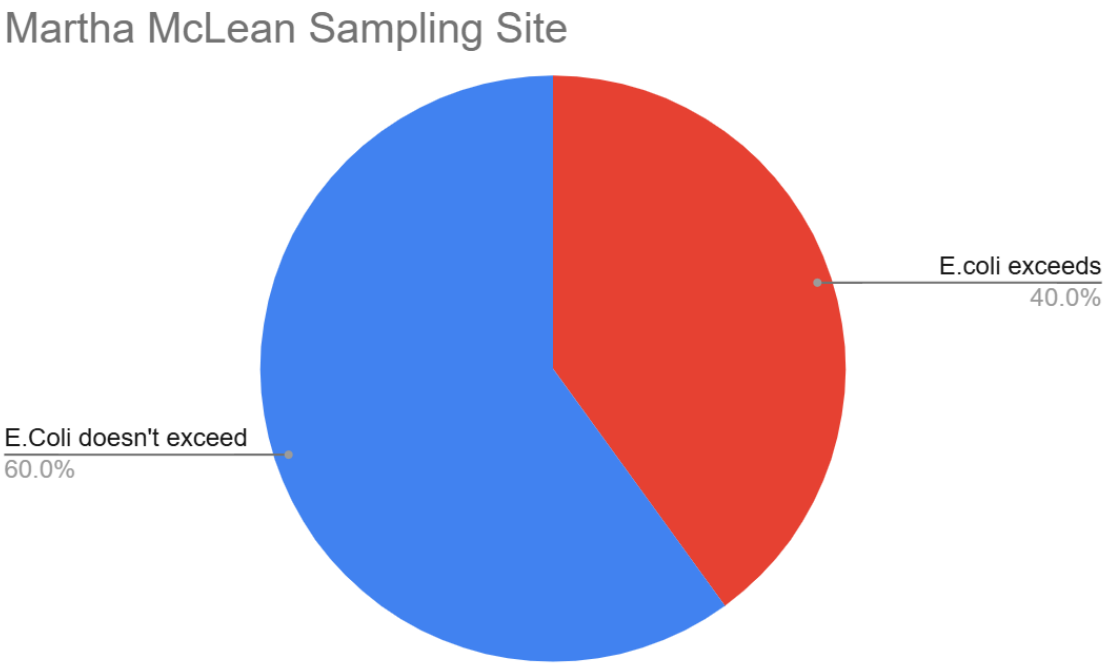
Martha McLean -Anza Narrows Park
Martha McLean Park is a regional park of Riverside, California, with land covering 40 acres. Martha McLean is an epicenter for several outdoor recreation activities, such as the popular 18-hole disc golf course, the walking and biking trails, as well as the gazebos and picnic tables for family gatherings. Martha McLean is also a popular site for water recreation due to its proximity to the Santa Ana River. Riverside residents commonly recreate at the Santa Ana River during the warmer months.

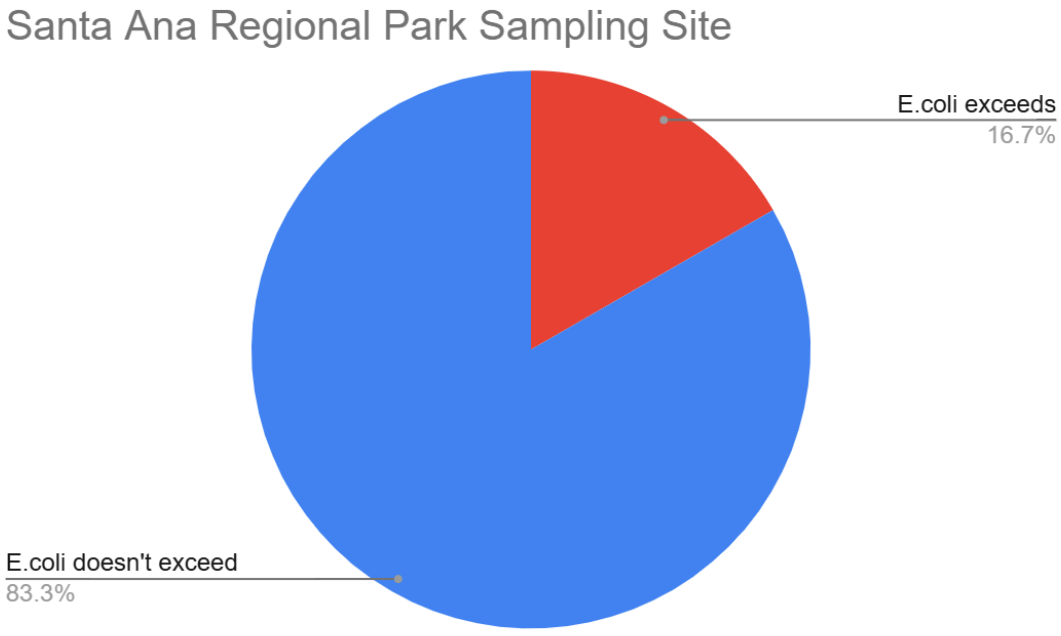
Santa Ana River Regional Park
Santa Ana Regional Park is located in Jurupa Valley, California, and serves as a recreational destination for residents of the area. With its abundance of green spaces and sandy beaches, it is an ideal area for picnicking and water activities. Santa Ana Regional Park is recognized for its clear waters and for its family-friendly atmosphere. Children are able to safely and freely play in the river water.

E.coli **Detection Levels January 1, 2025-June 30, 2025**

Overview

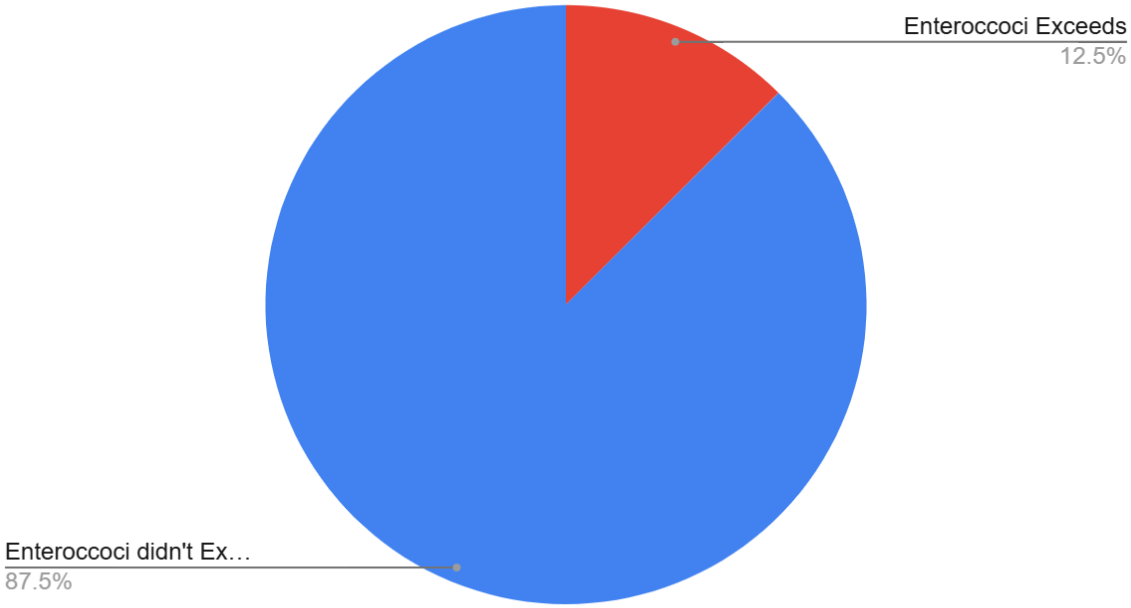




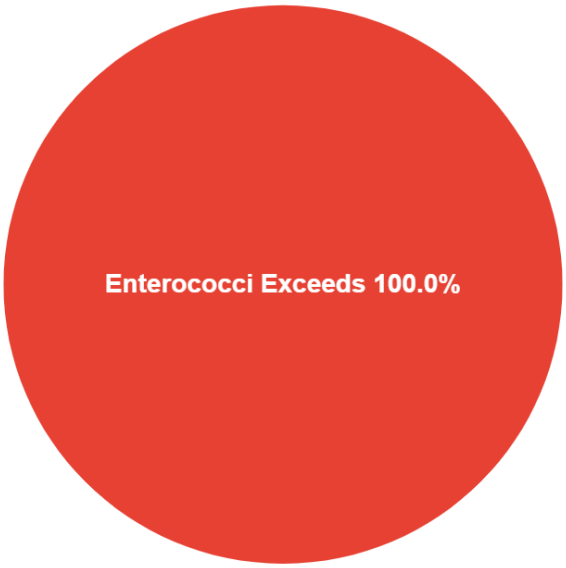


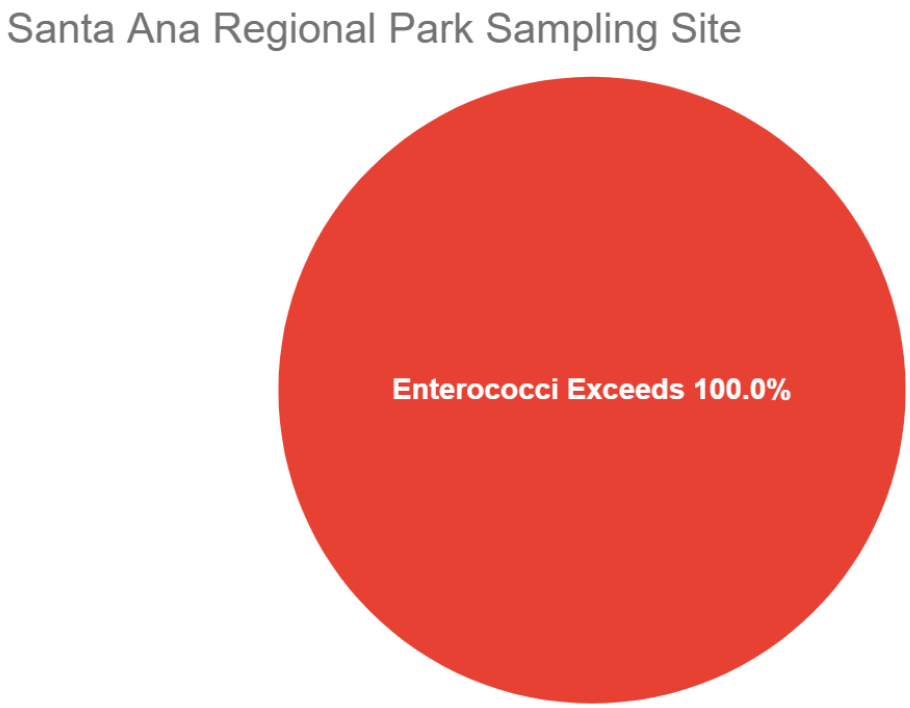
Enterococci Detection Levels January 1, 2025-June 30, 2025

Lytle Creek Sampling Site



Martha McLean Sampling Site





Based on these results, it is evident that the levels of Enterococci are much higher than the levels of *E.coli*. These results may indicate that there may be a combination of environmental and human factors causing these results.

Next Steps

Going forward, Waterkeeper will continue and expand our water monitoring along with our River Watch and Sanitary surveys. These surveys will be conducted at the three sites that are currently being monitored: Lytle Creek, Martha McLean -Anza Narrows Park, and Santa Ana Regional Park. We plan to expand monitoring sites to other waterways along the watershed. In addition, the water quality results collected will be added to Swim Guide, where the public can get information on how safe a waterway is for recreational purposes. The water quality will be monitored consistently to make updates on Swim Guide. Additional areas will be considered as potential cooling sites by considering important features such as accessibility to the site, shade, presence of pools and splash pads, parking, and operating restrooms.

This year, Waterkeeper launched a new program to help Inland Empire residents stay safe during extreme heat events. This program, called Building Resilient and Empowering Zones for Everyone (BREZE), will help locate and map existing and potential green areas that can serve as natural cooling sites throughout the Inland Empire. The BREZE project is currently in its planning stage and will be executed in partnership with the Center for Community Action

and Environmental Justice. The BREZE program was made possible through funding from the California Governor's Extreme Heat and Community Resilience Program.

In addition to the water quality data, Waterkeeper will be using ArcGIS to indicate areas around the Inland Empire that could serve as additional cooling sites. This mapping tool will allow Waterkeeper to create mapping sites that will include both natural cooling sites and urban cooling sites. This would enable residents to stay safe during extreme heat months and to become aware of the environmental resources available during high temperatures.

From January through June 2025, four interns were trained on water quality monitoring and River Watch Surveying. We want to thank Shawn Gross, Jeremy Neill, Bernice Shamfuti, and Meei Lum for their work on this project. One of the goals of the Waterkeeper Water Monitoring Program is to educate the community on the importance of water quality in recreational sites and how this impacts these potential cooling sites.