



County of San Diego

DEPARTMENT OF ENVIRONMENTAL HEALTH AND QUALITY
LAND AND WATER QUALITY DIVISION – BEACH AND BAY

P.O. BOX 129261, SAN DIEGO, CA 92112-9261
Phone: (619) 338-2073 | www.sdbeachinfo.com | www.sdcdehq.org



Water Quality Sampling Frequently Asked Questions

Droplet digital polymerase chain reaction (ddPCR) method

1. Where does the County of San Diego sample the water?

County of San Diego, Department of Environmental Health and Quality (DEHQ), Beach and Bay Water Quality Program samples the recreational waterways throughout the county, south from the Tijuana border to Trestles beach to the north. The water is tested for bacterial levels at approximately 45 beaches throughout the county. The program's mission is to notify the public of results/health risks so they can make an informed decision about where to swim. DEHQ partners with other agencies that also share their water quality sample results from other beaches. All sampling locations can be found at sdbeachinfo.com.

2. Why is the beach closed?

Beaches are closed when water quality testing results show bacterial levels that exceed State health standards and can cause illness. The high levels of bacteria can be caused by sewage releases or impacts from International cross-boundary flows.

3. When will the beach be reopened?

The ocean water is sampled daily. When sample results are within established State health standards the closure will be lifted, and the beach will be opened. DEHQ makes every effort to re-open beaches as soon as it is safe.

4. What is the ocean water tested for?

The ocean water is tested for Enterococcus bacteria which can indicate the presence of a variety of pathogens that can cause illness, such as bacteria, viruses, and protozoa. For more information regarding pathogens found in waters contaminated with sewage or runoff, visit our brochure in [English](#), [Spanish](#), [Mandarin](#), [Arabic](#), [Tagalog](#), and [Vietnamese](#).

5. How is the water tested?

The water is tested by using a molecular method called digital droplet polymerase chain reaction or ddPCR for short. ddPCR counts the enterococcus DNA fragments present in the water sample.

6. How long does the test (ddPCR) take?

Sample results are reported the same day samples are collected and results are posted on the Beach and Bay website: sdbeachinfo.com.



For information on advisories and closures, or if you have additional questions, please visit www.sdbeachinfo.com, email beachandbay.deh@sdcounty.ca.gov, or call our hotline at (619) 338-2073.



www.sdbeachinfo.com

7. Does the new test (ddPCR) count the dead bacteria? And can dead bacteria make me sick?

The ddPCR method tests for Fecal Indicator Bacteria (live or dead bacteria) which are commonly found in human or animal feces and are indicators of pathogens that contaminate water and can cause illness.

More information:

[Historical Ocean Illness Survey](#)

[High sensitivity of children to swimming-associated gastrointestinal illness](#)

[Rapidly measured indicators of recreational water quality and swimming-associated illness at marine beaches: a prospective cohort study](#)

8. Why are advisories/closures increasing?

ddPCR is a new, more sensitive beach water quality analysis method that detects contamination better and faster than older methods. This allows DEHQ to issue advisories/closures faster and also remove them faster, providing information to the public on water quality the same day samples are collected. San Diego County is the first coastal county in the nation approved to use this rapid test.

9. How long do you anticipate the increases in closures in the South County Beaches?

There are many factors that affect water quality at San Diego County Beaches. One factor that affects South County beaches are southern swells, which are more common during summer months and can bring sewage contaminated water north across the international border. This sewage contaminated water is causing the increase in bacteria levels and closures at South County beaches. The ocean water is sampled daily at South County beaches. When sample results show that the water is safe for swimming, closures will be lifted, and the beach will be opened.

10. What are the benefits of ddPCR?

The ddPCR method is more sensitive than the culture method and impacted less by environmental factors, allowing it to be more accurate in measuring bacteria and illness risk, and more protective of public health. The ddPCR method provides faster, same-day results. When beaches have bacteria levels that exceed State health standards and advisories or closures are required to be posted, DEHQ is able to lift them faster by using ddPCR.

11. What is the difference between the City of San Diego samples and the County samples?

The County of San Diego Beach and Bay program focuses on testing ocean water to ensure it is safe for recreation, using the ddPCR method (same day results). The City of San Diego focuses on testing discharges from treated effluent from the South Bay International Wastewater Treatment Plant, using the culture method (next day results).

12. The water looks and smells clean. Is it still contaminated?

Even if ocean water may look visually clean and not have an odor, it may still have bacteria levels that exceed State health standards. You cannot see or smell bacteria and there are many [pathogens found in waters contaminated with sewage or runoff that can cause illnesses](#).

13. Will I get cited if I choose to go in the water?

Check with your local lifeguard. It would depend on the location of the beach and the local ordinance.



For information on advisories and closures, or if you have additional questions, please visit www.sdbeachinfo.com, email beachandbay.deh@sdcounty.ca.gov, or call our hotline at (619) 338-2073.

