

Aquatic Park Water Quality

All bodies of water contain microscopic organisms. This Aquatic Park lagoon is monitored weekly for Enterococcus bacteria, an indicator for possible presence of human health risks. If bacteria levels exceed state health standards, advisory signs will be posted at a variety of locations around the lagoon. This body of water is suitable for limited recreation activities such as boating, paddling and rowing. Swimming or bathing is prohibited at all time. Swimming is not allowed.

Descriptions of postings

Green: Indicates bacteria levels are within State Water Quality standards

Yellow: Indicates bacteria levels exceeds State Water Quality standards. Restricted use, minimize contact with water.

Red: Indicates bacteria levels exceeds State Water Quality standards. Imminent Health hazard, lagoon closed to the public until further notice

If this warning is yellow or red, it will only be removed when two back to back weekly Enterococcus readings are below state standards in the north, central and south testing locations.

Description of 2019 Water Quality Issue

Beginning in August of 2019, some of the regular users at Aquatic Park began reporting increases in odors, turbidity, and unusual increases in water levels. These reports prompted staff to increase water quality testing from a monthly to a weekly basis.

In early August, the water quality test results were within the normal range, but by late August, tests indicated higher than normal levels of bacteria in the coliform family in the main lagoon (Coliform bacteria themselves are generally not harmful to human and pets, however they were then used as a State standard for determining water quality because they can be associated with other sources of contamination such as raw sewage, and therefore were used to indicate the potential for other disease-causing organisms to be present in water). As a precautionary measure, the City issued a public health warning to all users of Aquatic Park, posting warnings around the park, asking users to minimize water contact and to not drink or swallow the water from the lagoon. The sampling continued and testing was expanded to include Enterococci bacteria which is the new state standard for water bodies like the Aquatic Park lagoon. This new testing showed that bacteria levels persisted. On September 27, 2019, due to consistent levels of bacteria, the City changed the warning to asking patrons to avoid all contact with the water at Aquatic Park. This warning did not affect the upland areas and trails and recreational features at Aquatic Park, which remained open to the public. The City has performed monthly sampling for coliform bacteria in the lagoon for many years, starting in late spring until early fall. The sampling frequency was increased from monthly to weekly in order to more accurately

determine the relative safety of water contact activities, which is consistent with the State's water quality monitoring criteria for bay water beaches. See the Aquatic Park Water Quality results since October 2020.

In September 2019, the City received correspondence from the San Francisco Bay Regional Water Quality Control Board (Water Board), asking the City to look into potential sources for the reports of illicit discharges causing elevated bacteria levels, increased water level, evidence of continual influent, and elevated turbidity, stating that "some possibilities are construction sites and RV dumping". City and Water Board staff met to discuss these issues. The City has investigated the following:

- Local concealed locations, dead-end streets and construction sites
- Improper building connections
- Storm drains entering Aquatic Park and the lagoon
- Sanitary sewers

Additionally, the City corresponded with other local agencies that manage similar water bodies. Finally, the City contracted Wood Environmental, a specialized consulting firm, to help establish testing standards and identify the potential sources of the contamination. Wood identified new standards and methods that greatly improved the accuracy of the testing at Aquatic Park. From late October through early December 2019, test results were within the normal range. From December through late January 2020, test results were positive for Enterococci bacteria. From late January to the present, test results have been below the acceptable State standards for Enterococcus, E. coli, Fecal Coliforms and Total Coliforms.

Water Levels

The elevated water levels found in late summer of 2019 were initially attributed to the poorly functioning tide tubes (see discussion below) which have decreased in operating efficiency to less than 10% (these same tide tubes were working at an efficiency level of 60% in 2007). In early November of 2019, residents helped staff identify water coming into the Aquatic Park Lagoon via the Strawberry Creek storm drain overflow at high tide during dry weather periods. While such an overflow is a normal during higher tides and storm conditions, it was not normal for the observed occurrences. As a result, staff discovered that the old 12" inch high redwood weir in the University Avenue storm drain had disappeared, thereby allowing water from the Bay to enter Aquatic Park during high tides. On December 10, 2019, Public Works staff replaced the old redwood weir with a metal weir at the Aquatic Park Lagoon and the water levels have returned to normal.

For further questions or concerns, contact City of Berkeley Division of Environmental Health at 510-981-5310.