Bacterial Contamination in Washington Lakes

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State Standards

According to the Washington Water Quality Standards, WAC 173-201A-030, fecal coliform levels in lakes shall not exceed a geometric mean value of 50 colonies/100mL and not have more than 10 percent of all samples exceeding 100 colonies/100mL. However in general, the ambient concentrations of fecal coliform bacteria are not monitored in freshwater systems. Drinking water is routinely surveyed, and in some cases popular bathing beaches are sampled during the summer, but many lakes remain untested throughout the state.

Lakes can be added to the Federal Clean Water Act list of impaired waterbodies in the state of Washington on the basis of submission of data showing that concentrations exceed the standards. The proposed 2002/2004 list includes 21 lakes located throughout the state.

Current Beach Closure Protocol

Counties and cities are generally responsible for making sure water is safe for beneficial activities. Under current regulations, local health officers determine whether a waterbody is polluted or not. For example, Seattle-King County Public Health is responsible for determining the public health implications of bacteria monitoring results, and for conveying this information to elected officials and the public.

Because no exact standards have been adopted by the state Department of Health to determine when a beach should be closed, the local health department must make beach closure decision on a case-by-case basis. Generally, the health department will use one of two standards in making their determination:

1) the fecal coliform standard developed by the federal Water Pollution Control Federation, which is a geometric mean of 200 fecal coliform/100mL, with not more than 10 percent of the samples exceeding 400.

2) the 10 state standard which is a geometric mean of 200 fecal coliform/100mL, with no single sample exceeding 1000.

Reducing Bacterial Contamination

While there are a number of sources for bacterial contamination in lakes, lakeshore residents can reduce inputs by taking the following actions:

• Homeowners can do their part to ensure that they do not contribute to bacterial contamination of the lake. Properly maintained septic systems are very important.
• Cleaning up after pets and properly managing waste from farm animals will also help.

• Discouraging waterfowl use of adjacent lawns and docks by planting vegetation along the shoreline will minimize bacteria from birds.