

Is my pond or lake safe for swimming?

FACT SHEET



Washtenaw County
Health Department

Is anyone testing my beach water?

The Health Department tests public beach water for bacteria during the summer to ensure the water is “safe” for swimming. There are 5 public beaches in Washtenaw County: Bruin Lake Beach, Half Moon Lake Beach, Silver Lake Beach, Sugarloaf Lake Beach, and Independence Lake Beach. Sample results and beach advisories and closures are posted here: www.egle.state.mi.us/beach

“Private” beaches are not regularly tested by the Health Department. Residents often want to know whether their own body of water is safe for swimming, including a property owner wanting to know about their private pond, or subdivision/condominium residents concerned about a lake or beach in their commons area. Although bodies of water on private property do not have water quality monitoring requirements, we recommend following the State of Michigan Bathing Beach Guidelines for determining if water is safe for swimming.

What should my beach water be tested for?

We recommend testing beach water for *Escherichia coli* (*E. coli*), which are bacteria found in the intestines of people and warm-blooded animals. Most *E. coli* are harmless, but some strains may cause serious illness. *E. coli* in a beach water sample indicates recent fecal contamination, and the risk of contracting a water-borne illness is increased.

If you notice signs of a Harmful Algal Bloom (HAB), contact our office at 734-222-3800. Cyanobacteria, or blue-green algae, are a natural part of lakes, rivers, and ponds. However, some can produce toxins, called cyanotoxins, that can make humans and animals sick. When conditions are right, these organisms can rapidly increase to form a HAB. HABs can be a variety of colors, including blue, green, blue-green, brown, white, purple, or red. HABs can look like scums in the water that may have small flecks, foams, or globs and mats floating in it. The water can also look like it has spilled paint or a green sheen on the surface.

If you have concerns about other possible contaminants in beach water, contact our office at 734-222-3800.

E. Coli Surface Water Sampling Procedures:

Surface water samples must be collected in approved laboratory bottles. Bottles can be purchased from our Environmental Health Division office (705 N. Zeeb Rd., Ann Arbor, MI 48103), or from a state certified lab.

To collect water samples using our bottles:

- Samples must be returned by 3pm, Monday - Friday, the same day they are collected.
- Multiple sampling sites are recommended for larger ponds, lakes with multiple residences or a “commons” area and a broad beachfront (over 100 feet), or multiple swimming areas.
- Collect water at least 1 foot below the surface, in water that is 3-6 feet deep.
- Avoid contaminating the sample and bottle. Remove the bottle cap just before collecting each sample. Do not touch the inside of the bottle, do not rinse the bottle, and do not contaminate the bottle cap while sampling.
- Lower the bottle into the water with the bottle horizontal to the surface of the water. Once the bottle is at a depth of approximately one foot, turn the bottle so the opening is facing up, and raise the bottle out of the water. Place the cap tightly on the bottle.
- Complete the form that comes with the bottle and attach it to the bottle with a rubber band. If sampling multiple locations, note the different sample points (site 1, site 2, etc.). Be sure to provide a phone number on the form so you can be contacted about an unsafe result. If the sample is collected from water that you believe is contaminated with raw sewage or other pollutant, note this on the sample form.
- Return the samples to the Environmental Health office, located at 705 N. Zeeb Rd., Ann Arbor, MI 48103, weekdays before 3:00 p.m. Keep samples chilled and bring to the office within 5 hours of collection.

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What do the *E. coli* sampling results mean?

After you submit your sample, the laboratory's *E. coli* test takes 1-2 days to complete. The State of Michigan Bathing Beach Guidelines indicate that a beach is considered "safe" for full body contact if water sample result is:

- Less than 300 *E. coli* per 100ml of water for a single sample.
- A geometric mean of less than 130 *E. coli* per 100ml of water for a minimum of 5 sample events collected over a 30-day period.

If your result is **above** 300 *E. coli* per 100ml for a single sample, you will receive a phone call within 24-72 business hours after submitting your sample. We will advise you to re-sample the water and will recommend no swimming in the water until further sampling shows the bacteria counts have returned to a "safe" level.

If your result is **below** 300 *E. coli* per 100ml for a single sample, you will receive your results in the mail. Continue following your established sampling protocols.

How often should the water be tested for *E. coli*?

State of Michigan Bathing Beach Guidelines for public beaches require the water to be tested a minimum of 5 times over a 30-day period. These standards are for public beaches that operate daily throughout the summer and often receive periods of very heavy use. Subdivision/condo properties with a commons area that sees heavy use like a public beach should consider a similar sampling protocol.

Water bodies on private property typically see occasional use by a small number of people, so 1-3 sample events over the course of each summer should be sufficient. Further sampling should not be necessary that season unless results exceed the 300 *E. coli* per 100ml standard.

General Information:

When unsafe samples are collected, we will help try to determine why, but the reason(s) are not always clear. Contributing factors often include heavy bather use, presence of waterfowl, extended hot calm weather, or heavy rainfall.

Beach water contamination usually comes from conditions on or near the shore, so bacterial levels are usually lower further away from shore. If one area on a lake has elevated bacteria levels, it does not mean the whole lake is unsafe.

If there is a high population of geese/waterfowl in the bathing beach area, there is a higher likelihood that water samples will be unsafe. Waterfowl droppings should be removed regularly along shorelines to improve water quality.

Water quality is usually poor after rainfall due to run-off, where rain flows over the surface of the ground into the body of water, carrying contaminants with it. Limit full body contact and do not sample a surface water body during or within 24 hours after significant rainfall.

If the water appears cloudy or murky, chances are high that the sample will be unsafe. When in doubt, keep yourself and pets out!

We do not offer testing to determine if it is safe to eat fish from a particular body of water. Please visit the Michigan Eat Safe Fish Program website: www.michigan.gov/eatsafefish

Contact Information:

Washtenaw County Environmental Health Division
734-222-3800, www.washtenaw.org/envhealth

What about swimmer's itch?

We do not test water for swimmer's itch. Swimmer's itch occurs in many inland water bodies in Michigan. It is a temporary skin irritation with small itchy welts like mosquito bites. It is caused by a tiny parasite that normally lives in waterfowl and snails. The parasite dies off quickly after burrowing into human skin, and the itching sensation is the result of an immune response. Although uncomfortable, swimmer's itch is not a serious condition, and it will not spread from person-to-person. The itchy bumps can be treated with over-the-counter medications. To prevent swimmer's itch, avoid shallow areas as much as possible, especially when the wind is blowing toward the shore. Thoroughly towel off or shower as soon as you leave the water. Do not feed waterfowl, as it attracts potential parasite hosts. Maintain a healthy shoreline including native trees, shrubs, and plants to prevent waterfowl from congregating.

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