

Water Quality Testing at Lake Orono Beach

Testing Procedure

Orono Lake will be assessed for E. coli (Escherichia coli) bacteria to determine fecal contamination in recreational waters. Elevated bacteria levels generally occur in aquatic environments after significant rain events when bacteria sources are washed into the lake from land. The Minnesota Department of Health (MDH) recommends posting an advisory at the beach indicating swimming and wading are not recommended when laboratory or model results show E. coli counts exceed established standards.

The MDH recommends the following readings to be considered at advisory levels:

- Single-Sample Limit: At least one of the three samples per sampling day results in 235 organisms per 100 mL of water or higher.
- Geometric Mean: At minimum five samples equally spaced over a 30-day period exceed 126 organisms per 100 mL of water.

Orono Lake will be tested at Orono Park twice weekly (Tuesday and Thursday) from Memorial Day through Labor Day by taking three samples each day for a total of six samples per week. Informative signs will be placed near the beach and boat landing, which will provide a QR code and link to the most recent results.

Sample results will be housed and managed by the Orono Lake Improvement District on their website (<https://oronolid.org/beach-testing/>). The Minnesota Department of Health's (MDH) recommended water quality criteria will be provided on the webpage to help lake users interpret the current readings. Samples that exceed advisory levels will be highlighted on the OLID website as exceeding the MDH recommendations.

Standard for Posting Caution

If E. coli levels are above the guidelines for high risk levels (1260 Colony Forming Units Per 100 ML) the OLID will post a caution on their webpage and the following parties will be notified.

- Public Works Superintendent
- Park Foreman - Placement & removal of signs at Orono Beach/public access when posting is required.
- Police Chief and Police Captain
- OLID - email list to lake owners. oronolid@gmail.com
- City Administrator, or designee, who will inform Mayor and City Council

The caution will be removed from the website once sample results are below the high-risk level.

Effective as of January 1, 2018

Amended September 8, 2020

Revised May 2026