

## BCWMC's Protocol for Blue-Green Algal Bloom and Potential Harmful Algal Bloom Monitoring & Analysis - approved 10/19/23

The BCWMC's testing protocol for a potential blue-green (BG) or Harmful Algal Bloom (HAB) will be implemented through the BCWMC's normal routine lake monitoring program and follows recommendations of the World Health Organization (WHO). When BCWMC monitoring staff observes algal scum on a lake they are currently monitoring, staff will take a water sample of the potential bloom (even if the bloom is occurring at a location on the lake where samples aren't typically gathered) and will expediate algal identification and enumeration. If the analysis determines blue-green cell counts exceed WHO thresholds (Table 1) for low, moderate or high probability of health risk to recreational users, staff will notify the proper entities (e.g., city, lake association, MPCA and MDH) of the potential health risk. Member cities may opt to post signs at the lake's access point. BCWMC will not sample a lake they are not currently monitoring unless requested by a member city and at that city's expense. If the lake is not part of the BCWMC normal monitoring (regardless if it is a year to be tested or not), then the decision to test is up to the member city and at the member city's sole expense. Below is a flowchart detailing the BCWMC's protocol.

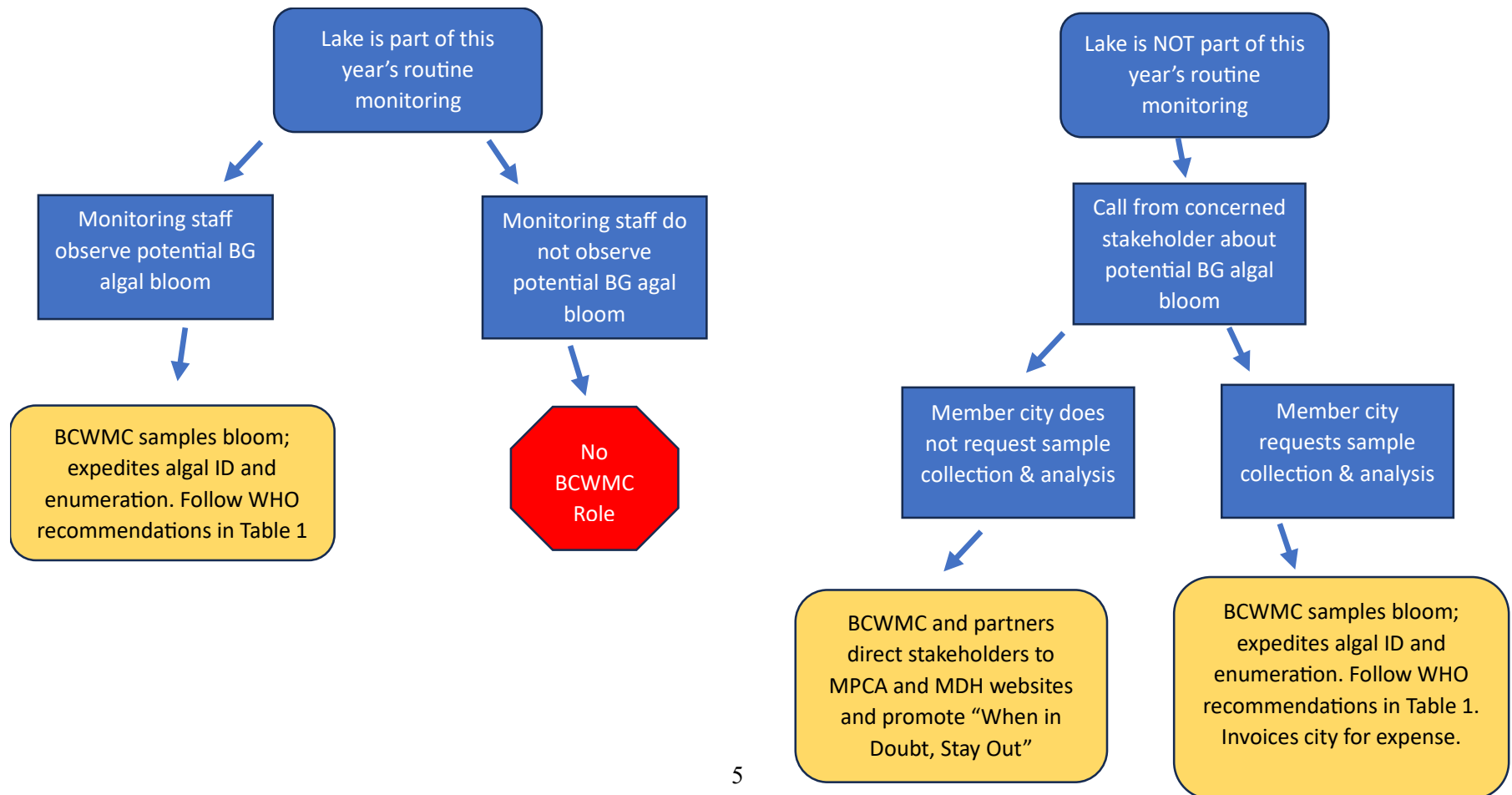


Table 1. World Health Organization Guideline Thresholds

Guidance Level	Health Risk Level	Health Risks	BCWMC Actions
< 20,000 blue-green algal cells per milliliter	Little, If any probability	<ul style="list-style-type: none"> <li>Little if any</li> </ul>	None
> 20,000 blue-green algal cells per milliliter but < 100,000 blue-green algal cells per milliliter	Low probability	<ul style="list-style-type: none"> <li>Short-term health outcomes (e.g., skin irritations, gastrointestinal effects)</li> </ul>	<p>Inform the City, the MPCA, MDH and other stakeholder partners of findings of a low probability of a health risk to lake/pond users and pets.</p> <p>Direct lake/pond users to MPCA website and “When in Doubt, Stay Out” message.</p> <p><a href="https://www.pca.state.mn.us/air-water-land-climate/blue-green-algae-and-harmful-algal-blooms">https://www.pca.state.mn.us/air-water-land-climate/blue-green-algae-and-harmful-algal-blooms</a></p>
> 100,000 blue-green algal cells per milliliter but < 1,000,000 blue-green algal cells per milliliter	Moderate probability	<ul style="list-style-type: none"> <li>Short-term health outcomes (e.g., skin irritations, gastrointestinal effects)</li> <li>Potential for long-term effects from some cyanobacterial species</li> </ul>	<p>Inform the City, the MPCA, MDH and other stakeholder partners of findings of a moderate probability of a health risk to lake/pond users and pets.</p> <p>Recommend that the property owner or city post advisory signs on the property.</p> <p>Direct lake/pond users to MPCA website and “When in Doubt, Stay Out” message.</p> <p><a href="https://www.pca.state.mn.us/air-water-land-climate/blue-green-algae-and-harmful-algal-blooms">https://www.pca.state.mn.us/air-water-land-climate/blue-green-algae-and-harmful-algal-blooms</a></p>
> 10,000,000 blue-green algal cells per milliliter	High probability	<ul style="list-style-type: none"> <li>Short-term health outcomes (e.g., skin irritations, gastrointestinal effects)</li> <li>Potential for long-term effects from some cyanobacterial species</li> <li>Potential for acute poisoning</li> </ul>	<p>Inform the City, the MPCA, MDH and other stakeholder partners of findings of a high probability of a health risk to lake/pond users and pets.</p> <p>Recommend that the property owner or city post advisory signs on the property.</p> <p>Direct lake/pond users to MPCA website and “When in Doubt, Stay Out” message.</p> <p><a href="https://www.pca.state.mn.us/air-water-land-climate/blue-green-algae-and-harmful-algal-blooms">https://www.pca.state.mn.us/air-water-land-climate/blue-green-algae-and-harmful-algal-blooms</a></p>

**Who should you contact if you suspect a potential blue-green algal bloom?**

- Contact the Minnesota Pollution Control Agency (MPCA) or the Minnesota Department of Health (MDH)
- MPCA lake monitoring staff track reports of potential harmful algae blooms. You can email pictures of the suspected bloom to [algae.mPCA@state.mn.us](mailto:algae.mPCA@state.mn.us). For more information on harmful algae blooms, call 651-757-2822 or 800-657-3864 or visit the [MPCA’s Blue-Green Algae and Harmful Algal Bloom web page](#).
- Report human health effects to the Minnesota Department of Health (MDH) [Foodborne and Waterborne Illness Hotline](#) at 1-877-366-3455. For health questions, citizens can contact MDH’s Waterborne Diseases Unit at 651-201-5414 or visit the [MDH’s Harmful Algal Bloom web page](#).
- In addition, if you think you or your pets are experiencing adverse health effects due to contact with, or ingestion of, lake water/algae, seek medical attention immediately.