CYANOBACTERIA & NUTRIENT LOADING

Cyanobacteria (blue-green algae) is toxic. If visible, take precautions.

AHS RECOMMENDATIONS

HEALTH RISKS

Symptoms include: skin irritation, sore throat, headache, & nausea. Symptoms may appear 1-3 hours after contact with a bloom. Children's symptoms can be more pronounced.

PRECAUTIONS

According to AHS, if you can see a bloom on the surface of the lake:

- Avoid all contact with blue-green algae blooms. If contact occurs, wash with tap water as soon as possible
- Do not swim or wade (or allow your pets to swim or wade)
- Do not feed whole fish or fish trimmings from this lake to your pets

Call Health Link at 811 to report a bloom or if you have symptoms. For advisories and information visit: AHS Blue-green Algae Health Advisory website

FREQUENT BLOOMS: CONTRIBUTING CONDITIONS

Cyanobacteria often forms when water is calm, warm and nutrient-rich. Pigeon Lake, like most prairie lakes, is characterized as nutrient-rich, so algal blooms can occur naturally. Frequency will increase due to:

- Runoff with high precipitation levels
- Altered shorelines caused by development
- Fertilizer use and runoff from other pollutants

IMPACT

Depletes the water of oxygen and produces high concentrations of ammonia that kills fish and other aquatic animals. Also, cyanobacteria can release toxins that are harmful for humans, pets and livestock.

WHAT WE ARE DOING

PREVENTION

PLWA has developed and supported measures to reduce nutrient loading:

- Alberta Clean Runoff Guide
- Ma-Me-O and Mission Beach Demonstration Rain Garden
- Fertilizer Bans in all Municipalities
- Beneficial Management Practices for Wastewater Management

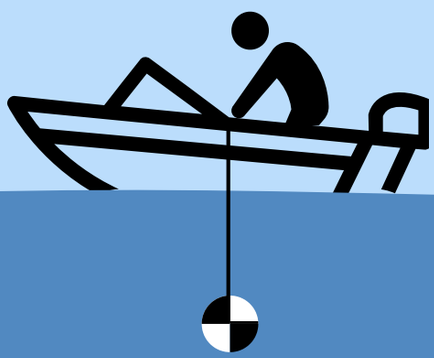
PLWA is also working on new initiatives. Everyone has a role to play. For more information: Respect our Lakes

MITIGATION

Solutions for removing blooms, such as harvesters, are being considered; however, currently no "silver bullet" exists to address blooms on a lake this size. Science-based, lake-friendly solutions are being evaluated by a committee. To contribute to the process email info@plwa.ca.

PLWA ENHANCED WATER QUALITY MONITORING

- In-lake LakeWatch sampling
- Copernicus EU Sentinel satellite pigment analysis
- eDNA Beach Sampling



ABOUT BLUE-GREEN ALGAE

Cyanobacteria are a type photosynthetic bacteria that live naturally in water.

Colour: blue-green, greenish-brown, brown, or red-pink; decomposing blooms can appear discoloured (white-purple).

Form: like grass clippings, globs, fuzz balls, paint/pea soup, or like scum on the surface of water

Smell: musty or grassy; decomposing blooms can smell like ammonia

Toxins: Most toxins degrade within 2 weeks but can be in the water at low levels for many months after a bloom forms. Some blooms are so bad that they cause livestock deaths. Some blooms don't contain toxins, but you can't tell if a bloom is harmful or not from how it looks. If you see a bloom, always take precautions as if it is toxic.

Adapted from Alberta Health Services. Visit https://www.albertahealthservices.ca/news/bga.aspx