Ministry of the Environment and Climate Change

Safe Drinking Water Branch

2nd floor
40 St. Clair Ave West
Toronto ON M4V 1M2

Ministère de l'Environnement et de l'Action en matière de changement climatique

Direction du contrôle de la qualité de l'eau potable

2e étage
40, avenue St. Clair Ouest
Toronto, ON M4V 1M2

Ontario

May 2015

Municipal Owners/Operators

As you know, the Ministry of the Environment and Climate Change (MOECC) and their partners are working to better understand the environmental factors such as nutrient levels and weather conditions that contribute to blue-green algal blooms in provincial lakes, rivers and inland waterbodies.

With the summer quickly approaching, the purpose of this letter is to remind all municipal drinking water system owners/operating authorities of the importance of proactively monitoring local source water for the presence of blue-green algal blooms. Experience has shown that the onset of algal blooms can be rapid and regular monitoring of cyanobacteria provides system owners and local Public Health Units with an early warning to take response actions.

The Ministry requires that system owners be extremely diligent with the proactive identification and response to algal blooms. Those systems that are known to be affected by blooms every summer season should begin regular monitoring from June to October, 2015. Monitoring actions should include, but are not limited to:

- Directly observing source water approaching and standing at system intake(s);
- Accessing algal bloom movements in the Great Lakes at http://www.glerl.noaa.gov/res/waterQuality/lakeErieHABArchive/
- Collecting raw/finished water samples for microcystin testing at a licensed laboratory;
- Keeping in contact with partners such as the MOECC, local Public Health Unit, local Conservation Authority, etc.

System owners should collect one raw water sample and one finished (treated) water sample each week from June to October or otherwise directed from ministry staff. The raw water sample should be collected at the intake or as close to it as possible to obtain a representative sample. Ideally, the finished (treated) water sample should be collected where routine THM samples are taken as free residual chlorine may reduce microcystin levels depending on the water pH. In the event, this is not possible; samples may be collected where convenient.

Samples must be submitted to laboratories licensed to perform ELISA testing for total microcystin. Where an ELISA test result is ≥ 1.5 μg/L, the licensed laboratory will submit the samples to the Ministry's Laboratory Services Branch (LaSB) as it is the only laboratory

licensed to perform microcystin-LR confirmatory testing and will do so free of charge. Where a microcystin-LR result meets or exceeds the Ontario Drinking Water Quality Standard of 1.5 μg/L, immediate notification to the authorities will be made as per the *Safe Drinking Water Act.*

This monitoring program is precautionary in nature and serves to assess both the presence of the algal bloom as well as the treatment efficacy of the system in the event an algal bloom does occur. In addition, weekly testing of the finished water will serve to provide assurance to the public that their drinking water is safe and of high quality.

Paul Nieweglowski
Deputy Chief Drinking Water Inspector
Director, Safe Drinking Water Branch
Ministry of the Environment and Climate Change
(416)314-1977