

Ontario's Lake Partner Program

A Closer Look at Your Lake

Ministry of the Environment programs and initiatives

Ontario's inland lakes are one of the province's most valuable resources. By working together, we can improve our understanding of these beautiful lakes and thereby help to protect them.

Ontario's Lake Partner Program works with volunteers to observe water clarity and collect phosphorus samples for lakes throughout Ontario. By measuring these two water quality parameters it is possible to detect long-term changes in the water quality of individual lakes. Together, these two measurements can be used to infer a great deal about water quality in your lake.

Why measure water clarity and phosphorus?

In many lakes, water clarity is an indirect measure of how much phytoplankton (algae) is in the water. Secchi disc measurements can detect changes in water clarity which may indicate that changes are occurring in the algal biomass of the lake. It is important to note that if your lake is coloured or "tea stained" then the water clarity observations will not be indicative of the amount of algae that is in the lake.

Phosphorus is measured because it is the element that controls algal growth in the majority of Ontario lakes. Generally, more phosphorus means more algal growth.

With several years of good spring-turnover phosphorus data we can accurately assess the nutrient status of the lake and track trends through time which might indicate a change in the nutrient status of the lake. With precise phosphorus data it is not necessary to use water clarity as a surrogate for nutrient status. However, it is still worthwhile to collect Secchi disc information since these data can detect changes in water clarity that are not linked to nutrient status. These may include effects due to invading species or from changes in the climate.

How Can I Get Involved?

You can join the Ontario Lake Partner Program by telephone or e-mail. We will mail you a kit that contains the materials necessary to conduct water clarity measurements and take water samples. The samples are returned, postage paid, to the Dorset Environmental Science Centre for analysis.

The Lake Partner kit includes:

Materials and instructions to assemble a Secchi disk. The volunteer will need to supply a rope and something to serve as a weight. There is also a sampling bottle, a filter and phosphorus sample tubes. The tubes are filled according to the instructions provided and returned, postage paid, to Dorset for analysis.

Program details

If you become a Lake Partner volunteer the number of phosphorus samples that you take each year will depend on whether your lake is on the Canadian Shield.

On-Shield

Take one water sample in the spring and Secchi disc water clarity measurements at least once every two weeks throughout the summer.

Off-Shield

Take one water sample in the spring and then one per month throughout the summer. Water clarity readings are made at least once every two weeks.

To find out if there is a Lake Partner Program on your lake, or to get involved, please contact:

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