

Source Protection and the Great Lakes

Protecting the Great Lakes

Together, the five Great Lakes and their connecting rivers form the largest fresh surface water system on the earth. The Great Lakes are a shared water source supplying drinking water to millions of people in Ontario and eight Great Lakes States, as well as to downstream Quebec communities on the St Lawrence River. More than 85 per cent of Ontario's population relies on the waters of the Great Lakes Basin as their sources of drinking water. Most of Ontario's source protection areas are within the Great Lakes – St. Lawrence Basin.

Those who rely on Great Lakes drinking water may already know that impacts to water can come from beyond the local watershed. Therefore, protecting our Great Lakes drinking water sources requires actions at the local watershed level, as well as broader collaboration. That's why the Clean Water Act contains provisions to protect the Great Lakes as sources of drinking water.

Municipalities drawing water from all sources including the Great Lakes are required by the Clean Water Act to map and protect their drinking water sources. Municipalities will work with conservation authorities to map the vulnerable area around a drinking water intake or wellhead, and will identify and assess the potential threats to their source water.

The approach to source protection for the Great Lakes starts at the municipal water intake or well and the lands or waters that may contribute risks to the quality or quantity of that water supply. Since the Great Lakes are impacted by multiple watersheds, including some with few drinking water sources, the Clean Water Act and its regulations recognise the need to integrate actions among neighbouring source protection areas in the Great Lakes Basin, and to consider agreements at the federal and provincial level on Great Lakes protection.

There are provisions in Ontario's source protection program for neighbouring source protection committees along the Great Lakes shoreline to share information and collaborate to find solutions. Neighbouring source protection committees will consult with each other at the local watershed level to identify, assess and address shared, cross-boundary concerns.

Clean Water Act provisions for the Great Lakes

The Clean Water Act allows the Minister to establish an advisory committee to provide advice on matters relating to the use of the Great Lakes as Ontario sources of drinking water. This advice may suggest the need to remediate identified problems or protect against existing

and future threats. This committee might be a special purpose committee, or the Minister may request an existing body or group to provide advice.

The Minister may also decide – based on advice from an advisory committee or on other information – that a Great Lakes target needs to be established for one or more source protection areas to protect the quality or quantity of source water. In addition to consultation with the affected source protection committees and other interested parties, public consultation and a posting on the environmental registry would be key parts of setting a target. Setting a Great Lakes target for more than one source protection area is one of the ways the province can coordinate how neighbouring source protection areas work together on a shared issue.

If a Great Lakes target for a source protection area is set, the Minister may ask the source protection authority for that area to recommend policies that the source protection plan could include, to help meet the target. The source protection committee would then decide what Great Lakes policies to include in the source protection plan. Great Lakes policies can then be implemented, for example, through amendments to official plans or zoning by-laws, or initiatives such as educational programs or incentives.

One of the important tools for Great Lakes source protection under the Clean Water Act is the authority of the source protection committee to designate one or more of these Great Lakes policies for mandatory conformity. This means that a municipality, local board or source protection authority must comply with the designated Great Lakes policy. As well, land use planning decisions made under provincial planning legislation and provincial approvals named in the Clean Water Act regulations all have to comply with the designated Great Lakes policy.

There are also conflict provisions in the Clean Water Act, so that if a designated Great Lakes policy conflicts with other legislation, policies or plans, the one that provides the most protection to source waters prevails.

Great Lakes Agreements

Responsibility for conserving, protecting and restoring the Great Lakes crosses jurisdictional boundaries and national borders, and extends beyond the scope of drinking water source protection. That is why both Ontario and Canada have entered into Great Lakes-related agreements with each other and their American counterparts. Source protection plans for areas that contain water that flows into the Great Lakes or St. Lawrence River are required to consider the following agreements:

- The Canada-United States Great Lakes Water Quality Agreement
- The Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem
- The Great Lakes Charter; and
- The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement

The Canada-United States Great Lakes Water Quality Agreement (GLWQA), first signed in 1972 and currently under review, is a commitment between Canada and the United States to restore and maintain the chemical, physical and biological integrity of the waters of the Great Lakes Basin Ecosystem. The Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem (COA) is an agreement committing Ontario and Canada to cooperate with one another and with others in the Basin to achieve the vision of a healthy, prosperous and sustainable Great Lakes Basin Ecosystem for present and future generations. The COA helps Canada meet its obligations under the GLWQA.

Source protection committees could, for example, consider the GLWQA and the COA when developing the source protection plan by reviewing the pollution problems they identify to determine if drinking water protection actions might also contribute to reducing the pollution problems.

The 1985 Great Lakes Charter and the 2005 Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement are agreements between Ontario, Quebec and the eight Great Lakes states, on water quantity protection and cooperative water resource management. The Safeguarding and Sustaining Ontario's Water Act, which implements the 2005 Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement, prohibits the diversion of water out of the Great Lakes Basin and restricts water transfer between Great Lakes. Source protection committees will have to consider those agreements when developing source protection plans – in particular when addressing water quantity.

A source protection plan policy could contribute to meeting the agreement by increasing water efficiency to reduce water use and reduce the need for new or extended pipelines from one Great Lake's watershed to another.

Bringing greater attention to Great Lakes drinking water source protection has been one of Ontario's priorities throughout the ongoing review of the GLWQA and in negotiating the 2007 COA. Through working groups under the 2007 COA, which came into effect on August 16, 2007, the two levels of government will further define the role of the federal government in source protection, particularly on federal

lands, the Great Lakes and other boundary waters. One key area for collaboration is the sharing of technical expertise and data. Should the governments of Canada and the United States decide to renew the GLWQA, Ontario will be advocating for stronger binational protection of the Great Lakes as an essential drinking water supply under a revised agreement.

Further information on the Clean Water Act and the regulations can be found on the Ministry of the Environment website at:
www.ontario.ca/cleanwater ; and
www.ontario.ca/drinkingwater

More local information on drinking water source protection can be found at:
http://www.conservation-ontario.on.ca/source_protection/otherswpreionsindex.htm

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