



UPPER THAMES RIVER ASSESSMENT REPORT

Section Summary - 8.0 Great Lakes

Section Summaries

The Assessment Reports for the Thames-Sydenham and Region are large summary documents compiling information from many technical reports. These technical reports include Water Budgets, Watershed Characterization Reports and many Source Protection Technical Studies related to municipal drinking water systems. That information has been summarized and compiled into Assessment Reports of the Region. Each section of the Assessment Reports has been summarized in a series of Section Summaries.

8.0 Great Lakes

The Clean Water Act (2006) requires that an Assessment Report and Source Protection Plans consider Great Lakes Agreements, if a Source Protection Area (SPA) contains water that flows into a Great Lake (Section 14).

The Upper Thames River SPA is landlocked and has no Great Lakes shoreline. It is surrounded by the Ausable Bayfield Maitland Valley and Lake Erie source protection regions, as well as the Lower Thames Valley SPA. The Thames River originates in the Upper Thames River SPA and continues through the Lower Thames Valley SPA where it outlets into Lake St. Clair, which in turn outlets into Lake Erie through the Detroit River. Figure 1 shows the Upper Thames River SPA watershed boundary.

Lake St. Clair, although not a Great Lake, is included while considering Great Lakes in the source protection planning process. This is because it is part of the Lake Erie basin, comprised of Lake St. Clair, the Detroit River and Lake Erie.

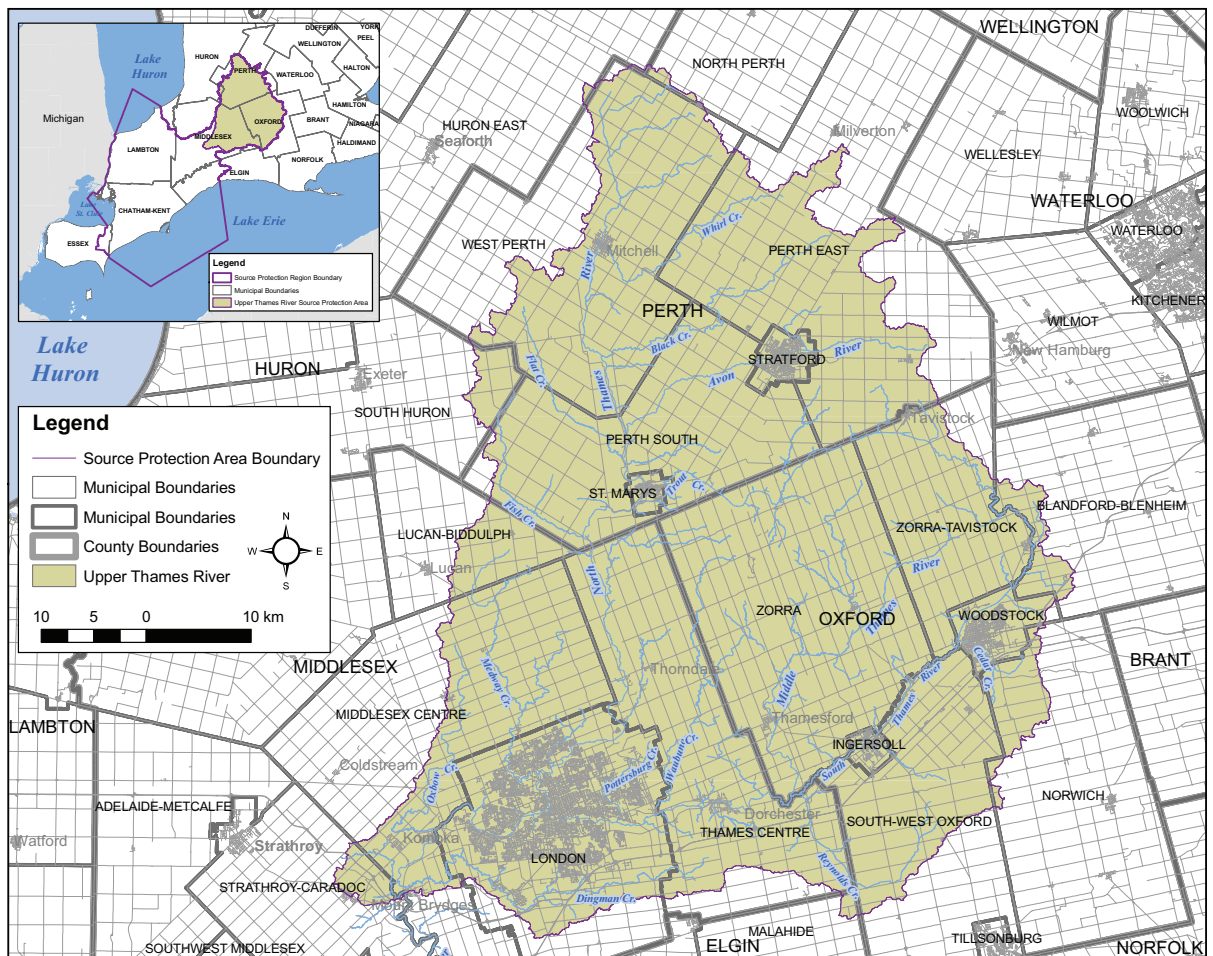


Figure 1. Upper Thames River Source Protection Area

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

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In the Upper Thames River SPA, most communities receive their drinking water from groundwater sources. However the City of London and a few neighbouring communities receive water from Lake Huron and Lake Erie, through municipal water treatment plants located outside of this SPA.

Significance of Considering Great Lakes

The Clean Water Act requires Source Protection Plans to consider policies that relate to the Great Lakes. The Ministry of the Environment (MOE) discussion paper on Requirements for the Content and Preparation of Source Protection Plans (June 2009) provides some details on how Great Lakes policies may be included in the Source Protection Plan. The details are reproduced below.

The Clean Water Act gives the Minister of the Environment the authority to set targets for the Great Lakes or any part thereof, to address any water quality or quantity issue related to the use of the Great Lakes as a source of drinking water. The Clean Water Act also provides that the source protection plan may identify one or more Great Lakes target policies as a "designated Great Lakes policy". Also, policies that govern monitoring to assist in implementing and in determining the effectiveness of a Great Lakes target policy may be established. It may be possible that Great Lakes targets are set up through other source protection regions but include the Upper Thames River SPA, in which case the SPA will be involved in discussions with other SPAs on achieving those targets.

Great Lakes Agreements

The Technical Rules: Assessment Report also requires that a description be provided on how the Great Lakes Agreements were considered in work undertaken (Rule 9) towards the Assessment Report. The Great Lakes Agreements to be considered are listed in Table 1.

Table 1. Great Lakes Agreements to be Considered in the Assessment Report

1	The Great Lakes Water Quality Agreement of 1978 between Canada and the United States of America, including any amendments
2	The Great Lakes Charter signed by the premiers of Ontario and Quebec and the governors of eight US states in 1985, including any amendments
3	The Canada-Ontario Agreement Respecting the Great Lakes Basin Ecosystem 2002 entered into between Her Majesty the Queen in Right of Canada and Her Majesty the Queen in Right of Ontario in 2002, including any amendments
4	The Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement signed by the governments of Ontario and Quebec and the governors of eight US states in 2005
5	Any other agreement to which the Government of Ontario or the Government of Canada is a party that relates to the Great Lakes Basin and that is prescribed by the regulations

The Great Lakes Water Quality Agreement (GLWQA), first signed in 1972 and renewed in 1978, expresses the commitment of Canada and the United States to restore and maintain the chemical, physical and biological integrity of the Great Lakes Basin Ecosystem and includes a number of objectives and guidelines to achieve these goals. In 1987, a Protocol was signed to help develop and implement Remedial Action Plans (RAPs) and Lakewide Management Plans (LaMPs). Under the Canada-Ontario Agreement Respecting Great Lakes Water Quality, geographic Areas of Concern (AOC) are identified. RAPs focus on the AOC. There are no identified AOC in the Upper Thames River SPA. At the time of drafting of the Assessment Report, the Source Protection Committee is not aware of any other agreement as per item 5 of Table 1.

LaMPs and Other Plans

As mentioned earlier, the Thames River originates in the Upper Thames River SPA and continues to flow through the Lower Thames Valley SPA where it outlets into Lake St. Clair which in turn outlets to Lake Erie. The GLWQA and the Canada-Ontario Agreement Respecting Great Lakes Water Quality are considered in the Lower Thames Valley SPA Assessment Report. Further, the City of London in the Upper Thames River SPA receives drinking water from Lake Huron and Lake Erie sources located outside of this SPA.

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Under the GLWQA, the Four Agency Management Committee established a framework for binational coordination of environmental issues on Lake St. Clair (U.S. Environmental Protection Agency, Environment Canada, Ontario Ministry of the Environment, Michigan Department of Environmental Quality; 2004). This framework is called the Lake St. Clair Management Plan. Lake St. Clair intakes in the Essex Region SPA supply some communities in the Lower Thames Valley SPA.

In accordance with the GLWQA, the goal of the Lake Erie LaMP is to restore and protect the beneficial uses of Lake Erie, with a focus on the beneficial use impairments listed in the Agreement. In 1994, a group of nine conservation authorities (CAs), including the Lower Thames Valley, Upper Thames River and St. Clair Region CAs, was established. The group is called the Federation of Conservation Authorities of Lake Erie, or FOCALerie. It supports the Lake Erie LaMP through various projects and provides a mechanism for these CAs to deal with broader Great Lakes concerns and to coordinate watershed planning and implementation activities at a scale beyond their individual watershed boundaries.

A Lakewide Management Plan is yet to be established for Lake Huron. In 2004, a report was prepared entitled Lake Huron Bi-national Partnership Action Plan. The approach focuses on areas of obvious importance, tackles these as priorities in the first action plans, and will expand over time to include other activities. Areas of concern in the Lake Huron basin are identified, none of which are in the Upper Thames River SPA.

Lake Erie Basin Working Group

The formation of a Lake Erie Basin working group was discussed in October 2009. This group could bring together interested parties within the Source Protection Regions that have intakes which rely on water from the Lake Erie basin as their source of drinking water. This working group would provide a forum to discuss drinking water specific matters relevant to the Clean Water Act.

At the preliminary meeting held in October 2009, discussions took place on lake-wide and local water quality issues identified through draft assessment report work. The group also discussed general source water quality concerns. Once the issues identification process has been completed and issues contributing areas and activities have been identified, it will be possible to consider whether issues are lake-wide or due to local activities at a subwatershed scale. The group also discussed how existing Great Lakes groups and agreements are relevant to the requirements of the Clean Water Act.

A more formal working group was considered. At this time, however, the group decided to correspond with neighbouring Source Protection Regions as needed and to hold another meeting in 2010, after the submission of Assessment Reports. This plan would help bring forward for discussion the findings of each Source Protection Authority's Assessment Report, especially as they pertain to issues.

Next Steps for Great Lakes

The Thames-Sydenham and Region will continue to be involved in the Lake Erie Basin working group, if formed. Dealing with lake-wide issues, investigating local activities, and formation of Great Lakes related policies will be discussed with other members of the working group. If the MOE identifies Great Lakes targets, policies specific to those targets will need to be developed under the Source Protection Plan. Further, if the MOE identifies targets that apply across several Source Protection Regions and Source Protection Areas, working groups such as the Lake Erie working group may provide an opportunity to work together to satisfy shared regulatory requirements.

For more information contact your local Conservation Authority or visit our website



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