



BY MAIL AND EMAIL

August 9, 2010

J.R. Powell, C.A.O.
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Dear Members of the Committee:

**Re: Proposed Assessment Report
Central Lake Ontario Source Protection Area, Clean Water Act**

Please find attached comments from Lake Ontario Waterkeeper on the Proposed Assessment Report for the Central Lake Ontario Source Protection Area. Do not hesitate to contact our counsel, Joanna Bull, at 416-861-1237, if you have any questions or concerns about this submission.

Yours truly,

Mark Watson
Waterkeeper & President

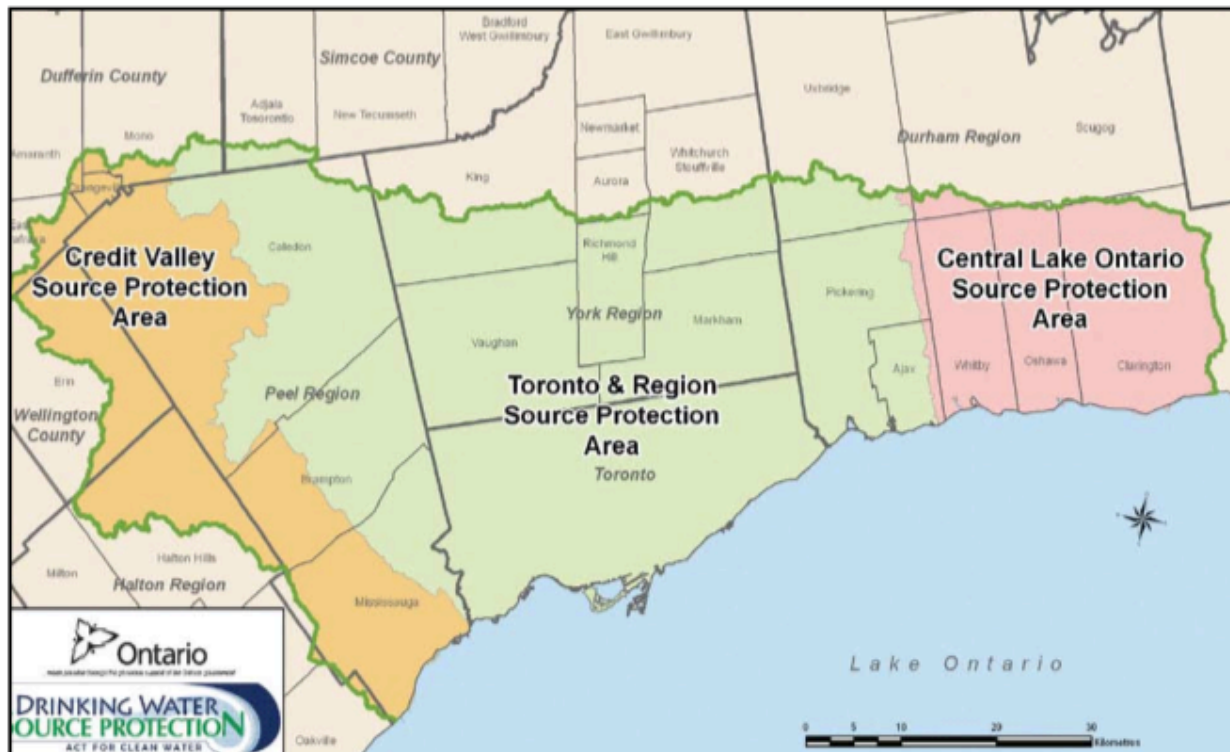
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PROUD MEMBER OF WATERKEEPER ALLIANCE

BACKGROUND

In response to the Walkerton Inquiry, the Ontario government enacted the *Clean Water Act* [CWA] in 2006 to protect existing and future drinking water sources throughout the province. The CWA establishes forty Source Protection Areas grouped into eleven Source Protection Regions. One such region is the Credit Valley, Toronto and Region, and Central Lake Ontario Source Protection Region [CTC Region] which consists of three source protection areas: Credit Valley, Toronto and Region, and Central Lake Ontario Source Protection Areas [CLOSPA]. The CLOSPA spans a total of 638.6 square kilometres and sits on the north shore of Lake Ontario. Entirely within Durham Region, the Area encompasses a number of municipalities including the City of Pickering, City of Oshawa, Municipality of Clarington, and the Towns of Whitby, Ajax, Scugog, and Uxbridge. It includes 15 distinct watersheds, including Lynde, Oshawa, Farewell, Harmony, Soper, and Black Creeks.



CTC Source Protection Region, including the Central Lake Ontario Source Protection Area.
Source: CLOSPA Assessment Report, Figure 1.2.

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Lake Ontario Waterkeeper [LOW] is a grassroots environmental charity that uses research, education, and legal tools to protect and restore a swimmable, drinkable, fishable Lake Ontario. We are a non-political organisation focusing on research and justice issues in the public interest. Since 2001, LOW has worked with local residents around Lake Ontario, including in the CLOSPA, to help identify and respond to threats to water sources.

Lake Ontario is the sole municipal drinking water source for the CLOSPA. Several major pollution sources that are threats to the water quality and quantity in Lake Ontario are present in the Area. Three nuclear power plants sit directly on the shore of Lake Ontario in the CLOSPA: Pickering A, Pickering B, and Darlington. The CANDU reactors used at these plants emit a wide range of contaminants into the air and water, including iodine-131, noble gases, radioactive particulates, and carbon-14. The plants also emit tritium routinely and through fugitive emissions, a carcinogenic substance that cannot be removed by traditional water treatment plants.

The Area is also home to heavy industry and historical contamination. Durham Region contains 97 sites listed on the Federal Contaminated Sites Inventory, including the Whitby Yacht Club, Pickering Airport Site, and the Oshawa Harbour.¹ Many of the sites are directly on creeks or the lakeshore and are laden with PCBs, PAHs, and heavy metals. In 2008, a landfill containing industrial waste like hydraulic oil, paint sludge, trichloroethylene sludge, and flyash sludge was discovered leaking into Harmony Creek in Oshawa.²

Sewage pollution, the major cause of beach closures and general water quality problems in Lake Ontario, is a significant issue in the CLOSPA. There are nine official beaches in the Area, including Bowmanville East and West, Frenchman's Bay East and West, Lakeview East and West, Newcastle, Pickering, and Whitby. To date this summer, these beaches have been "posted" (closed to swimming due to high E. coli levels) a total of 106 days, or more than 20% of the time. A recent decision to expand Duffin Creek Water Pollution Control Plant in Pickering to facilitate an expansion of the York sewage system means an increased amount of sewage will be entering Lake Ontario in Durham Region.

¹ Federal Contaminated Sites Inventory, available at <www.tbs-sct.gc.ca/fcsi-rscf>.

² Lake Ontario Waterkeeper, Application for Investigation submitted to the Ministry of the Environment, 2008, available at <www.waterkeeper.ca/documents/2008-10-harmonyAFI.pdf>.

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In order to address potential threats like these, the CWA requires the development of a Source Protection Plan [Plan] for each Protection Area. Requirements for the development and implementation of the Plans are set out under Part II of the CWA and in O.Reg. 287/07. Each Plan is required to identify all drinking water sources in the area including lakes, rivers and underground aquifers. It must also outline all threats to the quality and quantity of these sources. Finally, the Plan should propose the actions needed to reduce or eliminate the identified threats and protect all available sources.

A Source Protection Committee [Committee] was formed in 2007 to create a Plan for the CTC Region. Susan Self was appointed by the provincial Minister of the Environment to Chair the Committee. The Committee consists of the Chair, twenty-one voting members, and three non-voting liaisons. It includes representatives reflecting certain interests within the region including: municipalities, agriculture, industry, citizens-at-large, and community groups.

The Ministry of the Environment [the Ministry] approved Terms of Reference [TOR] for each SPA in the CTC SPR in 2009. The TORs give an overview of the scope of the process and all the work required to complete the Plan. The Committee then developed the Draft Proposed Assessment Report for the CLOSPA, and released it for public comment in April 2010. The Proposed Assessment Report, which is the subject of this comment, was released to the public in July 2010.

The Assessment Report is a technical document that identifies and classifies all water issues and threats to the quality and quantity of drinking water sources in the region. The report also identifies the areas that are most vulnerable to these threats. The conclusions reached in the Assessment Reports will serve as the foundation for the Committee's development of the final Source Protection Plan.

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DISCUSSION

Source Protection Plans developed under the *Clean Water Act* have the potential to be a powerful new tool for citizens working to protect their surface and groundwater sources. Section 39(7) of the *Act* requires that decisions to issue, create or amend a “prescribed instrument” conform with significant threat policies and designated Great Lakes policies set out in the source protection plan. Decision-makers must also have regard to other policies set out in the source protection plan. “Prescribed instruments” are those listed in section 1.0.1 of O.Reg. 287/07, including:

- Renewable Energy Approvals (REAs) issued under the *Environmental Protection Act*;
- Permits to Take Water (PTTW) and Sewage Works approvals issued under the *Ontario Water Resources Act*; and
- permits to extract aggregate under the *Aggregate Resources Act*.

Clearly, the instruments that must conform with the Source Protection Plan are significant. The development of energy projects and quarries, withdrawing of water for industrial use, and discharge of domestic and industrial sewage all have the potential to significantly impact the quality of water in Lake Ontario. As described above, LOW has direct experience with projects that require these approvals within the CLOSPA. If future approvals in the Area were required to comply with a strong and clearly-worded Source Protection Plan, citizens would have a new tool for local environmental protection.

An effective Plan for a region that drains into Lake Ontario or draws drinking water from the lake would include a special focus on protecting that surface water resource. Protecting and restoring the water quality in the lake would be recognized as essential to ensuring that the drinking water supply is clean and safe in the region. Unfortunately, the Proposed Assessment Report for the CLOSPA does not appear to lay a strong foundation for a clear and effective new tool to protect the lake. Information is not provided in sufficient detail to allow communities to comment on the treatment of local threats, and significant pollution sources like petrochemical facilities and nuclear power plants are not factored into the analysis.

The Assessment Report should include more specific and detailed information about potential drinking water threats.

An effective Source Protection Plan for an area dependent on Lake Ontario for drinking water would include detailed information on all sources of risk to the health of aquatic environments in the lake. It would provide citizens with the tools to prevent and remedy any impacts from those threats. The Proposed Assessment Report does not include

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detailed information listing the threats in the region. The maps provided are at a small scale, showing little detail and making it difficult to obtain specific community-level information from them. The data they reflect was not made available online as part of the comment period. Members of the public providing comment have no way to check whether local potential threats, like known sources of industrial emissions, nuclear plants, or leaching contaminated sites, were considered by the Committee. Information regarding how each specific source of contamination was addressed by the Committee is also not provided. Without this level of specificity in the Assessment Report, members of the public cannot evaluate whether the Plan will address important water quality issues.

The Proposed Assessment Report fails to identify lake-based industrial threats to water quality.

An effective Plan would identify all drinking water threats specific to the particular region being evaluated in order to identify and address site-specific threats and issues.

According to section 2(1) of the *Clean Water Act*, a “drinking water threat” is:

any activity or condition that adversely affects or has the potential to adversely affect the quality or quantity of any water that is or may be used as a source of drinking water, and includes an activity or condition that is prescribed by the regulations as a drinking water threat.

The *Act* does not limit drinking water threats to those prescribed by the regulations. Instead, it includes prescribed activities in addition to any other activity or condition that could adversely affect the quality or quantity of a drinking water source, including:

- Activities prescribed to be drinking water threats in paragraphs 19 and 20 of subsection 1.1(1) of O. Reg. 287/07 (General);
- Activities identified as local threats by the Source Protection Committee; and
- Activities that contribute to drinking water issues.

The Report includes an evaluation of potential threats to drinking water based on Intake Protection Zones [IPZs], ranked from IPZ-1 for the zone immediately surrounding an intake, to IPZ-3 for the larger zones of influence. It concludes that, with respect to IPZ-1s and 2s, no moderate or significant drinking water threats were identified in the SPA based on the provincial Tables of Circumstances. However, the Report notes that, “all of the activities listed in the provincial tables are land-based, and all of the IPZ-1s (with the exception of Oshawa) in the study area are fully within Lake Ontario”.³ The Report explains that, while

³ Proposed Assessment Report at 5-10.

drinking water risks at the IPZ-3 level are likely to exist in the Area, they will not be identified until a Phase 3 study is completed.

Before the Assessment Report is approved, it should include a full account of all potential threats to drinking water sources, including IPZ-3s. The threats should be based on the site-specific nature of intakes in the CLOSPA. If the provincial tables apply exclusively to land-based sources, they should not be applied to lake-based sources. Further, the threats that the Report notes are likely to be found when the IPZ-3 analysis is conducted include some of the worst sources of pollution on Lake Ontario: petrochemical facilities, nuclear power plants, and industrial activities including bulk fuel storage, wastewater treatment plants, and storm water sewers.⁴ These threats should be identified and evaluated before the Assessment Report is delivered to the Ministry for approval, and the public should be given an opportunity to review and comment on these specific industrial threats to drinking water.

RECOMMENDATIONS

The Source Protection Plan for the Central Lake Ontario Source Protection Area has the potential to be an important new tool for environmental protection in the region. However, without clear, accessible, and detailed data on all potential drinking water threats in the regions, including specific information about protecting Lake Ontario from historic, current, and future sources of contaminant, the effectiveness of this tool will be limited. Until the Committee has considered threats to drinking water based on lake-intakes and including emissions from industrial sources and nuclear power plants, the Assessment Report will not provide a strong basis for the development of a Source Protection Plan.

- 1. Provide detailed information in the Assessment Reports on individual sites considered potential threats to drinking water.**
- 2. Re-evaluate threats to drinking water using criteria applicable to lake intakes, rather than land-based considerations.**
- 3. Conduct a detailed evaluation of industrial threats in the Area.**
- 4. Complete an evaluation of identified industrial threats, incorporate that information into the Proposed Report, and resubmit it to the public for comment.**

⁴ Proposed Assessment Report at 5-13.