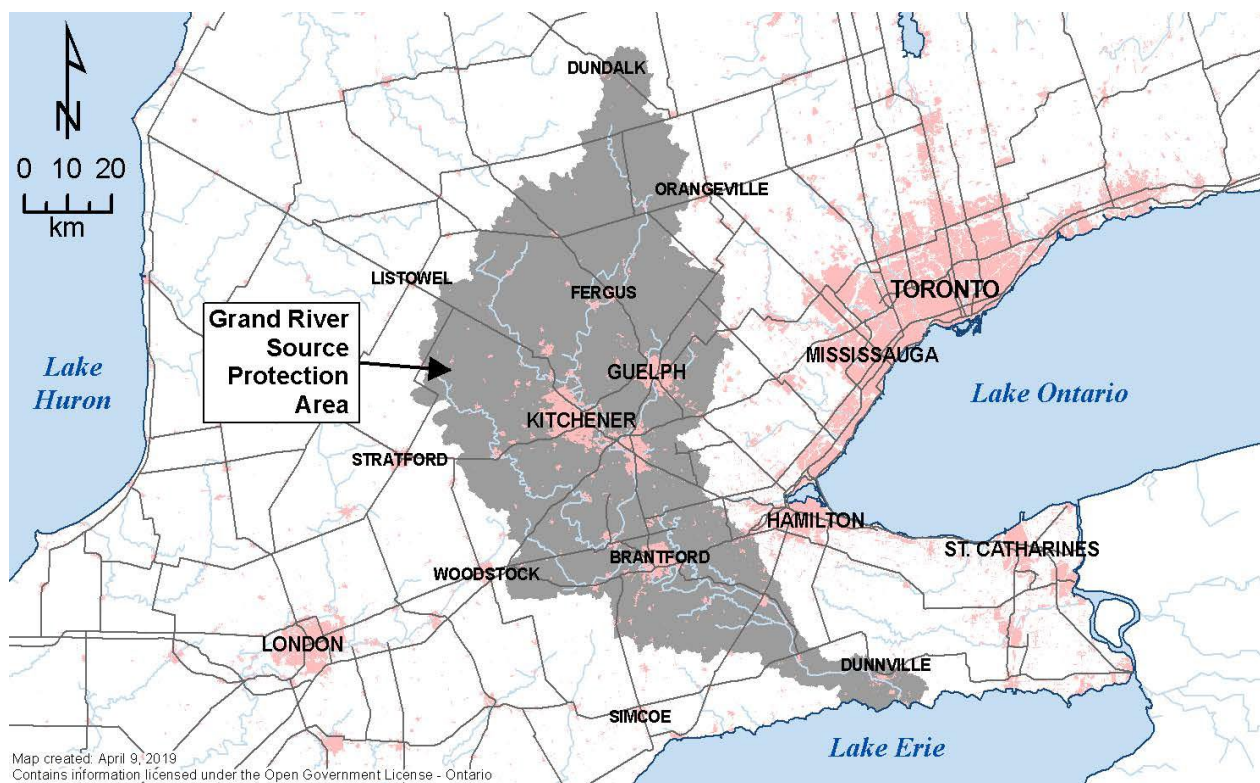


Grand River Source Protection Annual Progress Report 2022

I. Introduction

This annual progress report outlines the progress made in implementing our Source Protection Plan for the Grand River Source Protection Area, as required by the Clean Water Act and regulations.

We acknowledge and recognize the tremendous efforts made by our local municipalities, stakeholders, and Source Protection Committee in the development of the source protection plan and implementation of source protection policies.



II. A message from your local Source Protection Committee

PS: Progressing Well/Short of Target – Implementation of the Source Protection Plan is progressing well but remains short of target on achieving plan objectives.

A total of 14,850 significant drinking water threats have been identified in the Grand River Source Protection Area as of December 31, 2022. Approximately 51% of these significant drinking water threats have been addressed. This is an improvement compared to the 2021 annual reporting period (39%). Of legally-binding plan policies that address significant drinking water threats, 97% are implemented, in progress, or implemented because policy outcome(s) have been evaluated and it is determined that no further action(s) is required.

Progress addressing significant drinking water threats has been impacted by several factors outside of the control of implementing bodies. When the source protection plan came into effect in 2016, 7449 significant drinking water threats were identified. Since then, amendments to the Grand River Source Protection Plan (2020, 2021, and 2022) have resulted in an increase to the number of significant drinking water threats. The additional threats along with an increase in the number of development reviews in recent years has substantially increased the workload for municipalities.

III. Our Watershed

To learn more, please read our Grand River Assessment Report and Source Protection Plan.

The Grand River Source Protection Area (watershed) covers an area of approximately 6,800 square kilometres.

The Grand River starts in the highlands in Dufferin County and travels about 310 km before emptying into Lake Erie.

About a million people live within the watershed, with most residing in the larger urban areas of Kitchener, Waterloo, Guelph, Cambridge and Brantford. The watershed includes 39 municipalities and two First Nations territories.

The Grand River watershed is home to the Six Nations of the Grand River Territory and the Mississaugas of the Credit First Nation. Six Nations is the most populous First Nation in Canada, with about 13,000 residents living on an 18,800 hectare territory near Brantford. A similar number of members live "off reserve". The Mississaugas of the New Credit First Nation have a population of about 2,500 people, many living "off reserve".

The watershed is also an intensive agricultural area, with farms making up about 70% of the watershed.

The residents of the Grand River watershed receive drinking water supplies from both private and municipal supplies with 50 municipal systems and one First Nation system providing water to 865,538 residents (as of 2016) in the watershed.

IV. At a Glance: Progress on Source Protection Plan Implementation

1. Source Protection Plan Policies and Addressing Significant Risks

P: Progressing Well/On Target

The majority (97%) of legally-binding plan policies that address significant drinking water threats are implemented, in progress, or implemented because policy outcome(s) have been evaluated and it is determined that no further action(s) is required.

2. Municipal Progress: Addressing Risks on the Ground

P: Progressing Well/On Target

Within the Grand River Source Protection Area, 31 upper and lower-tier municipalities are required to review and update their Official Plan to ensure it conforms with the Grand River Source Protection Plan the next time they undertake an Official Plan review under the Planning Act. As of December 31, 2022, seven Official Plan amendments have been completed, 19 are in progress, and five have not been started.

3. Septic Inspections

PS: Progressing Well/Short of Target

In the Grand River Source Protection Area 1710 on-site sewage systems require inspections every five years in accordance with the Ontario Building Code. COVID-19 public health measures had an impact on the number of systems inspected in recent years, delaying those inspections to a future annual reporting period. Approximately 67% of systems remained to be inspected during 2022, the final year of the 5-year inspection cycle.

Of the 1143 systems that were due to be inspected in 2022, 363 (32%) of the inspections were completed. Of the systems that were inspected, results found 12% required minor maintenance work (e.g. lid replacement, etc.), and only 1% required major maintenance work (e.g. tank replacement, etc.).

Along with COVID-19 restrictions, Risk Management Officials also reported that landowners refusing entry or failing to provide required information were the cause of many systems not being inspected.

4. Risk Management Plans

PS: Progressing Well/Short of Target

The Grand River Source Protection Plan contains policies that require the development of Risk Management Plans to manage some drinking water threats. Screening processes are in place at municipalities to ensure applications for future development are reviewed for potential threat activities and applicability of source protection policies.

Fifty-eight Risk Management Plans were established in the Grand River Source Protection Area in 2022. A total of 390 risk management plans have been established since the Source Protection Plan came into effect in 2016.

In 2022, 148 inspections were carried out for activities prohibited under section 57 of the Clean Water Act, and 190 inspections were carried out for an activity requiring a Risk Management Plan under section 58. Of the latter, three inspections found activities taking place either without a required risk management plan, or in contravention of the contents of the existing plan.

Currently, there are 3573 properties with existing significant drinking water threat activities that are subject to section 58 policies but are not yet managed with an established or agreed to risk management plan. Risk Management Officials continue to prioritize risk management measures as appropriate but the increasing number of threats identified through Source Protection Plan amendments, along with limited staff resources, and COVID-19 public health measures in 2020 and 2021, have delayed the development of Risk Management Plans.

5. Provincial Progress: Addressing Risks on the Ground

P: Progressing Well/On Target

Ontario Provincial ministries including the Ministry of the Environment, Conservation and Parks (MECP), Ministry of Natural Resources and Forestry (MNR), Ministry of Transportation Ontario (MTO) and Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) implement source protection policies that use prescribed instruments to manage significant threat activities.

Ontario ministries review applications for new or amended provincial approvals (i.e. prescribed instruments, such as Environmental Compliance Approvals issued under the Environmental Protection Act) where they have been identified as a tool in the Grand River Source Protection Plan to address activities that

pose a significant risk to source water. The Province has established Standard Operating Policies to ensure that approvals take into account the science generated through the Drinking Water Source Protection Program and policies in the Source Protection Plan. Provincial approvals are issued, denied, amended, or revoked to conform to plan policies. Where necessary, conditions are added to approvals to ensure that the activity does not pose a significant threat to sources of drinking water.

The Ministries have reported that all but one of the previously issued Provincial approvals have been completed (99.8%) for the Grand River Source Protection Area.

6. Source Protection Awareness and Change in Behaviour

Drinking Water Protection Zones signs have been installed at 340 locations in the Grand River Source Protection Area since the Source Protection Plan came into effect in 2016.

The following positive outcomes have been reported by municipalities in the Grand River Source Protection Area:

- Landowners have become open to participating in and agreeing to the risk management process when they understand the reasons for Source Protection Plan policies and Risk Management Measures.
- There is an increased awareness of source water protection where threat verification inspections have been completed, resulting in increased spill protection, awareness and increased risk management for waste disposal, fuel handling, salt application & handling and snow storage.
- During the Official Plan amendment process, a Drinking Water Threat Disclosure Report has been made a requirement in municipal wellhead protection areas where SDWTs may be present. There have been numerous submissions related to this requirement since that time.
- A progressive reduction in per capita consumption of water has been observed, and a reduction in the amount of salt that is applied to streets.
- Risk Management Officials have reported receiving inquiries from residents or real estate agents regarding how the Source Protection Plan is going to affect their property.
- Many residents and elected officials believe that source water protection program should be expanded to apply beyond municipal wells.

- The community has become less apprehensive when discussing the Source Protection Program. This seems to indicate a better baseline understanding of what the program is and what the goals are.

7. Source Protection Plan Policies: Summary of Delays

Delays in implementing source protection plan policies were noted for Brant County, the City of Brantford, the Region of Waterloo, and Woolwich Township.

Implementing bodies have reported a lack of formal procedures to implement source protection into organizational processes. This has resulted in delays to policy implementation, threats verification, and inspections in some cases. To ensure implementation progress in the 2023 annual reporting period, implementing bodies will develop a process to formally link the Source Protection Program to their organization's internal processes and discuss options to implement policies with local boards and committees, increase threats verification work for existing threat activities that may be taking place on properties, and continue to evaluate the requirements of the local incentive program and implement policies as warranted.

Implementation of some source protection plan policies related to consumptive water takings within water quantity protection zones (WHPA-Q) still need to be addressed. This includes new policies that came into effect in early 2022 requiring the Region of Waterloo and Woolwich Township to review and amend Official Plan policies, and a policy requiring Brant County to request support from the Ministry of the Environment, Conservation, and Parks for the maintenance and expansion of a Tier 3 water budget model. Brant County will continue to collaborate with Lake Erie Region staff to complete this request.

8. Source Water Quality: Monitoring and Actions

Municipalities have monitoring and treatment systems in place to ensure that municipal drinking water meets the requirements under Safe Drinking Water Act, 2002. As of December 31, 2022, there are 17 drinking water systems or wellfields in the Grand River Source Protection Area with identified drinking water Issues (e.g. chloride, nitrate, sodium, and trichloroethylene).

Fifteen of these 17 systems have an Issue Contributing Area. The majority of the systems report increasing concentrations or no change in concentration. Two systems, the Paris Well Supply and the Wilmot Centre system (Region of Waterloo), reported decreasing concentrations. For those systems or wellfields where there are no improvements, municipalities will continue to collect data to monitor the Issues.

9. Science-based Assessment Reports: Work Plans

An order was received from the Minister of the Environment, Conservation and Parks in June 2020 regarding the section 36 work plan for updates to the Grand River Assessment Report and Source Protection Plan.

Examples of tasks in the Section 36 work plan include incorporation of:

- Growth and infrastructure changes (e.g. new drinking water supply well(s) to be brought online)
- Director's Technical Rule changes
- Transport pathway updates (e.g. consider any identified transport pathways for incorporation into the Assessment Report and Source Protection Plan)
- Results of environmental monitoring programs (e.g., review of monitoring data to evaluate existing or the potential for Issues identified at municipal drinking water wells)

The work will be incorporated into a future s. 36 Grand River Source Protection Plan update. The plan update is expected to be completed and submitted to the Ministry for review and approval in 2025.

10. More from the Watershed

To learn more about the Grand River Source Protection Area visit,
<http://www.sourcewater.ca>.