
FREQUENTLY ASKED QUESTIONS

CENTRE WELLINGTON SCOPED TIER 3 WATER BUDGET STUDY AND RISK ASSESSMENT

Overview

1. What is a Tier 3 Water Budget Study and Risk Assessment?

A Tier 3 Water Budget Study and Risk Assessment, otherwise referred to as a Tier 3 study, is a detailed scientific technical study aimed at assessing the water quantity risk to current and future municipal drinking water sources under a variety of scenarios, such as land use development changes, and future increased municipal water takings due to growth. The water budget study uses a mathematical groundwater model to evaluate how water levels will change within the municipal wells under various current and future scenarios. Further, the development of the water budget model utilizes all available data to understand the groundwater flow system from recharge to discharge areas, and quantify the volume of water flowing through the area. Quantity-related Wellhead Protection Areas are delineated to identify the subsurface and surface areas where the municipal wells are sensitive to water takings and reductions to infiltrations of precipitation caused by land use changes.

2. What is the goal of doing a Tier 3 Water Budget study?

The goal of the Centre Wellington Scoped Tier 3 study is to provide a measured assessment of current and future sustainability of Centre Wellington's municipal water sources in light of municipal growth and climate change.

3. Why is it called a "Scoped" Tier 3?

The study is referred to as "scoped" because the Township has not completed their Water Supply Master Plan. As data from the Water Supply Master Plan comes available, the Tier 3 study results can be updated with this information.

4. Have other Tier 3 Water Budget Studies been conducted in the County?

Under the Clean Water Act, 2006, there are two Tier 3 study areas in the County of Wellington: Guelph/Guelph Eramosa Tier 3, which is now in policy development, and the Centre Wellington Scoped Tier 3. Additionally, two Tier 3 study areas extend into the County from municipal systems located outside of the County: the Acton/Georgetown Tier 3 and Region of Waterloo Tier 3, both of which are complete.

5. Who is paying for the study?

The scoped Tier 3 Water Budget Study is funded by the Ministry of Environment, Conservation and Parks and administered by the Grand River Conservation Authority (GRCA) on behalf of the Township of Centre Wellington.

Key Study Participants

6. Who is involved in the study?

The following is a list of the key participants involved in the Tier 3 Water Budget Study. This includes stakeholders from the public and private sectors as well as the general public and non-governmental organizations.

Tier 3 Water Budget Project Team: The Project Team leads the Tier 3 Water Budget Study and is responsible for all decisions related to this project. Members of the GRCA, Township of Centre Wellington, Wellington Source Water Protection, Province, and the Project Consultant Team form the Project Team.

Provincial Peer Review Team: The Provincial Peer Review Team provides an external, independent, third party peer review of the technical findings of the Tier 3 Water Budget at each major milestone. The purpose of the review is to ensure the technical merits of the study. Independent experts from academia and consulting form the Provincial Peer Review Team.

The Provincial Peer Review Team is made up of three members:

Dr. Robert Schincariol – Western University
Dr. David L. Rudolph – University of Waterloo
Dr. Hugh R. Whiteley – University of Guelph

All three members have acted as Peer Review Team members on several other Tier 3 Water Budget studies that have taken place across the Province.

Project Consultant Team: The Project Consultant Team is responsible for conducting the Scoped Tier 3 Water Budget Study with direction from the Tier 3 Water Budget Project Team. The GRCA has retained Matrix Solutions Inc as the project consultant for this study.

Community Liaison Group: The Community Liaison Group (CLG) is composed of 15 members representing interested and potentially affected stakeholder organizations in the community. The CLG provides a multi-stakeholder forum for discussion of approaches, concepts and alternatives as a part of the water budget process. Members of the public are welcome to observe CLG meetings.

Third Party Facilitator: The Third Party Facilitator chairs the CLG meetings and provides facilitation and secretariat services. The GRCA has retained LURA Consulting to provide this service.

General Public: The Project Team will host at least one public session for the general public to attend.

7. Why is the GRCA leading this study?

The GRCA is the lead authority in the Lake Erie Source Protection Region, responsible for the administration of the Source Protection Program under the *Clean Water Act, 2006* throughout the Grand River, Long Point Region, Kettle Creek, and Catfish Creek Watersheds.

The GRCA is leading two other Tier 3 water budget studies within the Lake Erie Source Protection Region (Long Point Region Tier 3, Whitemans Creek Tier 3), and was requested by the Township to lead the Centre Wellington Tier 3 study.

8. What is the role of the Township of Centre Wellington?

The Township is part of the Project Team directing the study (see Question 7) and an active participant in the study. Township staff are contributing municipal data, experiences, and insight to the Project Consultants regarding their ongoing management of the groundwater supply aquifers in the communities. The Township also plays a key role as the first point of contact for many of its residents regarding this project.

9. What is the membership of the Community Liaison Group?

The CLG is composed of representatives from interested or potentially affected stakeholder organizations in the following sectors:

Business	Agriculture
Industrial water users	Environment
Commercial / Communal water users	Conservation
General public	

To engage stakeholders in participating in the CLG, letters of interest were sent to stakeholder organizations. The selection process for the general public seats was carried out through an application process. Public members are expected not to be affiliated with any group or organization.

10. If I am not part of the CLG, is there another way I can find out information in person?

The Project Team will host at least one public session for the general public to attend. Further questions or comments can be made by contacting a public representative of the Community Liaison Group. **Contact information is posted at www.sourcewater.ca/CW-Scoped-Tier3.**

How do I find out more information?

11. Where can I find ongoing communications about the Scoped Tier 3?

Updates are provided through the Lake Erie Source Protection Region website:
www.sourcewater.ca/CW-Scoped-Tier3.

12. How will the information and data from the study be shared?

Information is posted on the Lake Erie Source Protection Region website:
www.sourcewater.ca/CW-Scoped-Tier3.

Posted items include: CLG Agendas and Meeting Minutes, Meeting Materials and Reports, and FAQs.

13. Will the report be accessible to the public? I.e., will the report be in plain language or will it be technical?

The Tier 3 Study is a detailed scientific technical study. The reports will be written as technical documents. However, to help interpret the findings a plain language summary document will also be available along with the final report.

What is the scope of the project?

14. Does the Tier 3 Study take into consideration private wells? How will this study impact them?

The Tier 3 study focuses on the impacts to municipal supply wells. The study aggregates the information contained in individual private water wells records and stored within the provincial water well record database to build the geologic layers of the groundwater flow model. Although the focus of the study will be to protect municipal drinking water sources, the results of the study may provide insight to private well owners with regard to regional and local groundwater flow directions, depths to water table, depths to the municipal water supply aquifer and other similar information that may be of interest to a private well owner.

15. Will this study provide information on the health of deep aquifers?

The study will evaluate the long term groundwater availability within the shallow (e.g., Guelph Formation) and deep (e.g., Gasport Formation) water supply aquifers within and surrounding the communities of Fergus and Elora. This work will assist Centre Wellington staff in their proactive work to ensure the communities have adequate water supplies to meet their water demands, now and into the future.

16. Where are the recharge areas for deep aquifers and what will the Province do to protect them?

“Significant groundwater recharge areas” were mapped across Ontario as part of the Source Protection studies commissioned by the Province. In some areas outside the Grand River watershed, policies are in place to protect the quantity of water recharging the groundwater flow system.

In addition, protection for vulnerable areas not directly associated with a municipal drinking water system has been included in the Provincial Policy Statement, 2014, which sets out provincial planning policy for municipalities to incorporate in their Official Plans and planning approvals.

17. How will the Tier 3 study consider other municipal water users (i.e., the Region of Waterloo, City of Brantford)?

The Tier 3 will consider the impact of increased municipal takings on all water users in the area including other permitted water takers and the natural environment. Changes to groundwater discharge into streams, such as the Grand River, and impacts to provincially significant wetlands will be evaluated as a part of the study. The extent of the study area is currently being determined through a review and analysis of available information, and will be sufficiently large enough to evaluate the cumulative impact of groundwater pumping on other water users.

18. Will the Belwood Reservoir be considered as a municipal water source?

At present, Belwood Reservoir is not considered a municipal drinking water source and will not be included in the study as a municipal drinking water source. Consideration for new water sources is addressed through a municipal water supply master planning process.

19. Will corporate data be included and how does it get included (i.e., Nestle, Highland Pines)?

The project team obtained data from local water takers including geological information, well water levels, and the results of well tests. This information was used in developing the conceptual model of the area and in calibrating the groundwater model. Every effort was made to include relevant corporate data in the study. The project team reached out to large non-municipal takers through the Community Liaison Group and requested support from the province to obtain corporate data to support the study. All data, regardless of the source, was reviewed and put through a QA/ QC process by the project consultant. Data that was found to be erroneous or inconsistent the conceptual model of the area was removed from the dataset.

20. Is municipal water system loss incorporated into the Tier 3 model assumptions?

Where municipal water system loss is known or suspected to occur the volume is incorporated into the groundwater recharge term. Discharge to collection infrastructure that intersects the water table (i.e., inflow and infiltration (I&I) to storm water or sanitary sewer pipes) can also be incorporated where it is known. Where leakage is unknown it can still be generally incorporated and is often assessed as part of an uncertainty assessment designed to evaluate questions such as

“What is the impact of a certain volume of leakage occurring on the water levels in the municipal wells?”

21. Is the interaction between groundwater and surface water included in the Tier 3 model?

Yes, the interaction between ground water and surface water bodies such as cold water streams and provincially significant wetlands will be evaluated in the Tier 3 Study.

22. Now that the Province has established a two year moratorium on new and expanded water bottling operations, why is the Tier 3 project also not postponed?

The province is taking action to protect water for the future by applying a two-year moratorium on new or expanded water takings from groundwater by bottling companies. It bans new water bottling facilities from taking groundwater, and prohibits existing facilities from increasing their groundwater taking or testing for future groundwater sources. This ban applies to pumping tests, where the objective of the pumping test is to provide data on the feasibility of the water source for a future new or expanding water bottling operation only. Other pumping test applications will continue to be evaluated by the Ontario Ministry of the Environment, Conservation, and Parks.

The moratorium is the first of a number of immediate steps the province is taking to further protect water in Ontario. While the moratorium is in place, the province plans to further strengthen groundwater protection by:

- Undertaking further research to improve understanding of groundwater
- Examining how pricing and other tools could be used to help manage and protect water resources
- Reviewing existing rules for water bottlers to ensure long-term groundwater protection, including considering the impacts of climate change and future demand on water sources
- Consulting with communities, industry and Indigenous partners on changes to groundwater management practices before they are implemented.

The Tier 3 project helps the province deliver on its commitments by increasing the understanding of groundwater resources in the Fergus/Elora area. It is important that the Tier 3 project continue as Centre Wellington is an area where there is anticipated municipal growth and interest from a water bottling operation.

With the information from the Tier 3 about the sustainability of the municipal water supply in light of pressures from growth and climate change the province will be better positioned to understand the risk associated with a new water bottling operation in the area.

23. How do we stop Nestlé's from taking our water?

Bottled water establishments are regulated by federal (e.g., under the Food and Drugs Act), provincial and municipal levels of government.

Provincial approval is the requirement to obtain a Permit to Take Water from the Ontario Ministry of the Environment, Conservation, and Parks for a water taking that exceeds 50,000 litres on any day. The Ministry of Environment, Conservation, and Parks is responsible for the approval of Nestle to use the Middlebrook well for water bottling. The evaluation of Nestle's proposed taking is outside the scope of the Tier 3 study.

Municipal approval only applies to requirements under the Municipal Act (property standards), Planning Act or Ontario Building Code. These are requirements that govern any commercial operation in the Township and are not related directly to the activity of bottling water.

Final Results of the Study

24. What will the final report look like? What will it include/exclude?

The Final Risk Assessment report will describe the application of the groundwater flow model in evaluating the water quantity risks in the Centre Wellington area. The report will have two substantial appendices that 1) describe the physical characterization of the area including the geology, hydrogeology and hydrology of the area, and 2) describe the development and calibration of the groundwater flow model for the project.

25. Will the final report provide advice to decision makers?

It is the goal of the Tier 3 study to provide detailed information about the risk to current and future municipal drinking water sources. Information from this study will assist Township staff in planning the water supply for the Township, including finding potential locations to site new municipal water supply wells, and assist the Province in making decisions that protect these sources of municipal drinking water.

The Township is using the findings of the Tier 3 to inform the development of their Water Supply Master Plan.

The Province will use the results of the study to inform water taking decisions in the area.

When the Township completes the Water Supply Master Plan and possibly other portions of the growth planning process, the Tier 3 study may need to be updated to meet the technical requirements of the Clean Water Act to incorporate the results into the technical work supporting the Grand River source protection plan.

26. How will the study help with water conservation efforts in the Township?

The study or follow-up studies may recommend that water conservation measures within the communities of Fergus and Elora be enhanced to help reduce the current and future water demands and help extend the long term sustainability of the water supply aquifers in the area as the communities grow. The data from the study will allow the Township to explore different options for future water supplies such as focusing on well optimization instead of searching for new well locations.

27. How will the results impact the Township's ability to grow?

This study will provide information that will assist Township staff in managing the planned growth and future water demands needed for the growing communities.

28. How will the results of the study impact me as a resident?

This study will provide detailed information about the sustainability of the Township's municipal water sources that will assist Township staff in planning the water supply for the Township. It is the hope of the Project Team that this study will provide confidence to Township residents that the staff at the Township, County, GRCA and MECP are proactively evaluating and planning ahead to meet the short and long-term municipal water needs for the communities of Fergus and Elora.