1. Project Overview
The Grand River Conservation Authority (GRCA), with funding provided by the Ministry of Environment and Climate Change (MOECC), is managing a Tier 3 Water Budget and Local Area Risk Assessment for the Guelph-Guelph/Eramosa municipal drinking water systems.

The GRCA is a partnership of municipalities that manages water and resources on a watershed basis using sound science and technical information. The GRCA is also 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.

A Tier 3 Water Budget is a detailed scientific technical study aimed at assessing the risk to current and future municipal drinking water sources under a variety of scenarios, such as land use changes due to development, and future increased municipal and non-municipal water takings. The water budget study evaluates the safe additional available drawdown at each of the municipal wells in the study area, and uses water budget tools to evaluate how water levels will change within the municipal wells under various current and future scenarios. In addition, as part of the study, quantity-related Wellhead Protection Areas are delineated using technical guidelines set out by the Province.

This project began in 2008 with a focus on the City of Guelph’s water system. Starting in 2014, the project included Guelph/Eramosa’s system. Deliverables produced as part of the project were reviewed by municipalities affected and subject to peer review by a Provincial Peer Review Committee that, as a team of qualified and independent experts, reviewed the deliverables to ensure a scientifically defensible water budget and ensure consistency with the expectations of the water budget technical rules. The Provincial Peer Review committee was
engaged on a continuous improvement basis and provides for the involvement and participation by the broad scientific and engineering communities.

The Guelph-Guelph/Eramosa Tier 3 Water Budget and Risk Assessment Reports have been completed and were presented to the Lake Erie Region Source Protection Committee on April 6, 2017. Report SPC-17-04-04 directed staff to incorporate the components of the Tier 3 Water Budget and Risk Assessment Report into an updated Grand River Assessment Report. Report SPC-17-04-04 also laid out the next steps including the risk ranking exercise and threats management strategy, a technical study also called Risk Management Measures Evaluation Process (RMMEP). This technical study, although not mandatory under the Clean Water Act, 2006, is typically undertaken when a Tier 3 water budget and risk assessment assigns a significant risk to water quantity, which is the case for the Guelph-Guelph/Eramosa Tier 3 risk assessment. The deliverables from the Tier 3 risk assessment and RMMEP are technical, science-based inputs that will form some of the basis for developing water quantity policies for the Guelph-Guelph/Eramosa Tier 3 Water Quantity Wellhead Protection Area (WHPA-Q) and Water Quantity Intake Protection Zone (IPZ-Q). The Grand River Source Protection Plan is then updated to include a summary of the Tier 3 technical work and the water quantity policies and submitted to the MOECC for review and approval.

All Tier 3 Water Budget studies are peer reviewed on behalf of the Province by a team of highly qualified third party technical experts working in both academia and private consulting. The Provincial Peer Review team meets with the Project Team and consultants a minimum of three times throughout the project life-cycle; their goal is to peer review and ensure the technical merits of the study.

2. Project Scope

2.1 Technical Study (RMMEP)

This study provides for technical input to assist the Lake Erie Region Source Protection Committee and municipalities in formulating water quantity policies within the Water Quantity Wellhead Protection Area (WHPA-Q) and Water Quantity Intake Protection Zone (IPZ-Q) for the City of Guelph and Township of Guelph/Eramosa municipal water supply systems. A RMMEP is typically undertaken when a WHPA-Q/IPZ-Q is assigned a significant risk level in a Tier 3 water budget and risk assessment.

The RMMEP follows the Guide Water Quantity Risk Management Measures Evaluation Process prepared by the Toronto and Region Conservation Authority (TRCA) for the use of Source Protection Committees in preparation of the Source Protection Plans under the Clean Water Act, 2006 (January 2013), in particular the list of tasks identified in the guide including
identification and ranking of significant water quantity threats, selecting and evaluating risk management measures, and developing a threats management strategy.

This technical study will evaluate and determine the water takings that have the greatest impact on the municipal drinking water systems. Using the Tier 3 groundwater flow model, risk management measures will be evaluated to determine the most effective approach for reducing the water quantity risks of the City of Guelph’s and Guelph/Eramosa Township’s systems. Risk management measures to be evaluated could include options such as: optimized municipal pumping, water conservation, water loss management and education and outreach programs.

Activities to be evaluated include all water takings and land development areas that have the potential to reduce groundwater recharge within the WHPA-Q. Water takings include all the municipal water supply wells, as well as permitted and non-permitted water takers. The impact of each individual or group of water takings is reviewed and their impact on the municipal water wells is quantified and ranked using the Tier 3 groundwater flow model. Similarly, water takings and land development in the IPZ-Q will be evaluated on their potential to reduce surface water flow at the Eramosa intake given the interconnection with WHPA-Q through the Arkell recharge system.

The results of the threats ranking are used to guide the selection of preliminary risk management measures using the web-based Risk Management Measures Catalogue. The measures selected are then evaluated by developing and testing a number of risk management scenarios using the Tier 3 model. For example, if the greatest threat to a municipal water well is from elevated municipal demand, risk management measures may include shifting a portion of the demand to a nearby municipal well, if it can be accommodated. The preliminary risk management measures are tested in the groundwater flow model and the risk level to the WHPA-Q is recalculated until a set of risk management measures are identified that can, theoretically, successfully reduce the risk level applied to the WHPA-Q from significant to moderate or low. These potential measures are documented in a threats management strategy.

The results of the technical study, including the risk ranking, summarized and documented in the threats management strategy, provides technical input that provides a foundation for policy development.

2.2 Water Quantity Policy Development
The process for the Guelph-Guelph/Eramosa water quantity policy development study will be undertaken in two steps. Step 1 will include the development of a Water Quantity Discussion Paper, and will be undertaken in parallel with the technical study (RMMEP). Step 2 will be the actual development of the water quantity policies, which includes the selection of the policy options and drafting of the policy text.
2.3 Water Quantity Discussion Paper
The Water Quantity Discussion Paper will outline the current legislative framework in Ontario for managing the prescribed drinking water threat #19 (an activity that takes water from an aquifer or a surface water body without returning the water taken to the same aquifer or surface water body) and threat #20 (an activity that reduces the recharge of an aquifer) as prescribed in Ontario Regulation 287/07 section 1.1 (1). The discussion paper will also lay out all the possible policy tools that the Clean Water Act, 2006 provides to manage drinking water quantity threats #19 and #20. These tools range from using education and outreach and incentive programs, to land use planning, prescribed instruments, and Part IV approaches, such as risk management plans, and prohibition. Lastly, the discussion paper will aim to shortlist the most promising policy tools that could be used to manage the water quantity threats. The discussion paper will be developed with input and advice from the Lake Erie Region Source Protection Committee, implementing municipalities and the broader community.

2.4 Water Quantity Policy Development
The development of water quantity policies will benefit from a number of inputs, including the water quantity discussion paper describing the most promising policy tools and the results from the technical study (e.g., risk ranking and threats management strategy), describing possible management measures to address the water quantity threat. This step includes the selection of the preferred policy options, identifying policy approaches, and the drafting of the policy text. Policy development happens under the oversight of the Lake Erie Region Source Protection Committee and is a collaborative process amongst partner municipalities, with input from the community.

2.5 Grand River Source Protection Plan Update
The results of the Guelph-Guelph/Eramosa Tier 3 Water Budget and Risk Assessment and subsequent process to develop associated water quantity policies, will need to be included in an updated Grand River Source Protection Plan and will follow a Section 34 update. The Clean Water Act, 2006 enables source protection plans and assessment reports to be revised using a locally initiated amendment under Section 34. A Section 34 update requires, among other things, municipal endorsement (i.e., Council resolution) of those municipalities affected by the changes, and a formal public consultation process for a minimum of 35 days. Following formal public consultation and finalization, the updated Grand River Source Protection Plan will be submitted to the Ministry of the Environment and Climate Change for review and approval.

3. Key Project Participants
The following is a list of the key participants (and responsibilities) in the Guelph-Guelph/Eramosa Water Quantity Policy Development Study:
Project Team: The Project Team leads all the technical studies (RMMEP) and policy development components and is responsible for all decisions related to this project except the Source Protection Plan update which is led by the Lake Erie Region Source Protection Committee. The Project Team is comprised of staff from the GRCA, City of Guelph, Guelph/Eramosa Township, Wellington County, Wellington Source Water Protection, MOECC, and supporting consultants.

Lake Erie Region SPC: The Lake Erie Region Source Protection Committee is responsible for the development of the Source Protection Plans in the Lake Erie Region, and as such is responsible for overseeing the update of the Grand River Source Protection Plan and Assessment Report, with support from GRCA staff.

Project Consultant Team: The Project Consultant Team is responsible for conducting the technical study (RMMEP) with direction from the Project Team. Matrix Solutions Inc. has been retained by the City of Guelph to complete the RMMEP.

Implementing Municipalities Group: The Implementing Municipalities Group (IMG) will have an important role to review and provide input at major milestones of the technical study as well as water quantity policy development process. Implementing municipalities are those that will be responsible for implementing water quantity policies and include the City of Guelph, County of Wellington, Townships of Guelph/Eramosa and Puslinch, Town of Erin, Region of Halton, Towns of Milton and Halton Hills, Region of Waterloo, and Township of Woolwich.

Community Liaison Group: The Community Liaison Group (CLG) provides a forum for the community to be informed about the project and provide input on the policy development process at major milestones. The CLG is not a decision making body. All final decisions relating to the study will be made by the Project Team.
Third Party Facilitator: The GRCA retained Lura Consulting to chair IMG and CLG meetings and to provide facilitation and secretariat services.

4. Purpose of the Community Liaison Group (CLG)
The Community Liaison Group (CLG) provides a forum for a diverse range of stakeholders and residents in the City of Guelph, County of Wellington and surrounding areas to communicate their perspectives and observations on water quantity policy development to the Project Team and consultants. Further, it enables the Project Team to keep the community informed about the project and its progress, and communicate challenges, interests, or other relevant information to the broader community.

The role of the CLG is to provide feedback and observations within the scope of this Water Quantity Policy Development study (see Section 2). The CLG is not a forum for the discussion on items such as the ethics of water bottling, current provincial policy on Permits to Take Water, or other issues outside the scope of this study.

5. CLG Mandate
The mandate of the CLG is to provide feedback and observations at important milestones during the Water Quantity Policy Development Study. The CLG is non-political and does not address specific property issues or concerns outside the scope of the study. Specifically, the role of the CLG is to:

- Provide a sense of community interests relating to the scope of the Water Quantity Policy Development and how these might be addressed within the study;
- Provide a forum for two-way communication between the members / their organizations and the Project Team; and
- Provide feedback on other relevant matters that the Project Team, within the scope of policy development, refers to the CLG for comment.

6. CLG Membership
CLG membership is comprised of representatives from interested and/or potentially affected stakeholder organizations that lie within the WHPA-Q and IPZ-Q in the following sectors:

- Business;
- Industrial / Commercial / Institutional (ICI) water users;
- Communal water users;
To engage stakeholders to participate on the CLG, the Project Team sends letters of interest to stakeholder organizations. The selection process for the general public seats is carried out through an application process. To assist in selecting general public member applicants, the application form will include a knowledge component relating to the study focus on water quantity. Public members are expected to not be affiliated with any group or organization.

The size of the CLG is determined by the Project Team, and will be around 20 members. The outreach and selection process for members from the industrial, commercial, institutional, and communal water use sectors will be informed by the results of the threats ranking, once available. The Project Team confirms the members of the CLG based on the level of interest among prospective participating organizations, while striving to achieve the balance of sectoral interests outlined above. It is anticipated that the CLG will include up to 2 members from the General Public.

The CLG also includes representation from the neighbouring Halton-Hamilton Source Protection Region.

The following are the key terms and conditions of CLG membership:

- Membership is voluntary and uncompensated.
- Members understand, accept, and agree to abide by these Terms of Reference.
- Members are willing to commit to participate on the CLG throughout the duration of the Water Quantity Policy Development study (a minimum of four meetings/workshops).
- Members agree to attend as many CLG meetings as possible, and identify and brief an alternate from their organization in the event that attendance is not possible (not applicable to General Public members).
- Through their participation on the CLG, members (except General Public members) agree to ensure a two-way flow of information between the organizations they represent and the Project Team.
6.1 Term of CLG Membership
Membership in the CLG is for the duration of the project, currently envisioned as approximately 15 months.

7. CLG Roles and Responsibilities
The CLG acts in an advisory capacity to the Project Team and is not responsible for making decisions. Decisions regarding the Water Quantity Policy Development study are the responsibility of the Project Team. In the event of a conflict between the Project Team and CLG members, responsibility for the final decision rests with the Grand River Source Protection Authority as the overall project lead for the Water Quantity Policy Development study.

The CLG provides its comments and feedback directly to the Project Team. The following are the roles and responsibilities for each:

CLG members will:

- Advise the Project Team of their organization’s/community’s perspectives relating to this project;
- Provide feedback and perspectives on presentations or reports tabled by the Project Team, and information brought forward by CLG members or others;
- Help the CLG operate effectively by offering ideas, suggestions and alternative solutions to any issues;
- Be familiar with and observe the CLG “code of conduct” (see Section 7.1 below);
- Review relevant project materials and provide constructive feedback, advice, and perspective;
- Attend CLG meetings or brief alternates if attendance is not possible; and
- Review the results of CLG discussions to ensure the meetings are accurately recorded in the meeting minutes.

Project Team members will:

- Strive to provide accurate, understandable information to CLG members, such that they can contribute informed advice and recommendations;
- Help the CLG function effectively by providing information, suggestions and alternative options to any issues;
- Ensure that appropriate Project Team representatives (or other resource people) are present at discussions on specific issues or components of the process;
- Listen carefully to the advice and perspectives of CLG members;
• Provide material for review in advance of CLG meetings where possible; and
• Circulate and publicly post final CLG meeting minutes.

7.1 Code of Conduct
CLG members will be required to adhere to a Code of Conduct as outlined below:

- Participants should review the agenda and any reports before attending each meeting;
- Participants will be courteous, listen to others and respect the opinions of others;
- Participants should ask questions if a statement is unclear;
- Participants should participate fully in discussion but not dominate the discussion or allow others to do so;
- Participants will speak one at a time and not cut off other participants or presenters while they are speaking;
- Participants wishing to make comments will do so through the facilitator, and wait their turn until they have the floor;
- Private discussions should be held outside of the meeting room while the meeting is in progress;
- Participants will not swear and should not use obscene or foul language;
- Participants will not make derogatory comments based on gender, race, ethnicity, religion, sexual orientation or disability; and
- Participants should not request that items outside of the mandate of the committee be discussed at CLG meetings.

GRCA and the Project Team are committed to ensuring a safe and respectful environment for both clients and staff. Aggressive or intimidating behaviour, harassment or coarse language will not be tolerated.

Members who do not follow this Code of Conduct will receive one initial warning after the first violation from the facilitator. Upon a second violation, the individual will be removed from the meeting. A third violation will result in dismissal from the CLG and will be taken into account in future GRCA advisory group selection processes.

7.2 Contact
The GRCA point of contact for all CLG correspondence is:

**Martin Keller**  
Source Protection Program Manager  
Lake Erie Source Protection Region  
Grand River Conservation Authority  
400 Clyde Road, Box 729
8. CLG Meetings and Logistics

8.1 Meeting Frequency
The Project Team has planned for a minimum of four meetings / workshops with the CLG over the course of the project. CLG meetings will take place at a suitable location in close proximity to the study area.

8.2 Facilitation
Lura Consulting, under contract to the GRCA, is providing facilitation and secretariat services for CLG meetings. These services include:

- Develop meeting agendas and workshop feedback materials in consultation with the Project Team and the CLG;
- Chair and facilitate CLG meetings and workshops; and
- Record keeping and preparation of minutes for CLG meetings and workshop summary notes.

8.3 Meeting Minutes and Workshop Summary Notes
CLG meeting notes are taken by a representative of Lura Consulting. A summary of the meeting will be drafted and circulated to CLG members within two weeks following each meeting for review and comment and are subject to email approval by CLG members.

Final minutes and workshop summary notes are posted at www.sourcewater.ca/GGET-Tier3 for public access.

8.4 Agendas and Feedback Materials
Meeting agendas and feedback materials with any appended information will be circulated at least one week in advance of the next meeting. Members can suggest agenda items within the scope of the project for future CLG meetings at each CLG meeting.

8.5 Public Access
CLG meetings and workshops are open to members of the public and held at locations within the community that can accommodate attendance by members of the public. Any members of the public wishing to attend CLG meetings are welcome to observe the meeting, but CLG meetings will be working sessions for members and will not include a question/answer period for observers or delegations. Any questions from observers must be directed through the CLG’s general public members or appropriate sector members, prior to, or following the
meeting. Project team members can observe the CLG meetings and may be asked to contribute to presentations and/or discussions at the request of the Project Team chair.


Please note that all information will be used in accordance with the Municipal Freedom of Information and Protection of Privacy Act and the Access to Information Act. With the exception of personal information, all information provided through the CLG process will form part of the public record including the names of the CLG member organizations.