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BY E-MAIL ONLY (waterpolicy@ontario.ca)

Erinn Lee
Ministry of Environment, Conservation and Parks
Water Policy Branch
Foster Building, 10th Floor
40 St. Clair Ave W
Toronto, ON M4V 1M2

Dear Ms. Lee:

Re: Updating Ontario's Water Quantity Management Framework (ERO #019-1340)

Thank you for the opportunity to comment on the Ministry of Environment, Conservation and Parks' Environmental Registry (ERO) posting on updating Ontario's water quantity management framework. We understand this update proposes regulatory changes for managing water takings to protect the long-term sustainability of surface water and groundwater and to ensure these important resources are responsibly managed and safeguarded now and for future generations.

The Toronto and Region Conservation Authority (TRCA) conducts itself in accordance with the objects, powers, roles and responsibilities set out for conservation authorities (CA) under the *Conservation Authorities Act* and the MNRF Procedural Manual chapter on CA policies and procedures for plan review and permitting activities, as follows:

- A public commenting body under the *Planning Act* and *Environmental Assessment Act*;
- An agency delegated the responsibility to represent the provincial interest on natural hazards under Section 3.1 of the Provincial Policy Statement;
- A regulatory authority under Section 28 of the *Conservation Authorities Act*;
- A service provider to municipal partners and other public agencies;
- A Source Protection Authority under the *Clean Water Act*;
- A resource management agency; and
- A major landowner in the Greater Toronto Area.

In these roles, and as stated in the *Made-In-Ontario Environment Plan*, TRCA works in collaboration with municipalities and stakeholders to protect people and property from flooding and other natural hazards, and to conserve natural resources. TRCA provides technical support to its municipal partners, as a Source Protection Authority and through Memorandums of Understanding and Service Level Agreements in implementing the natural heritage, natural hazard and water resource policies of municipal and provincial plans.

Government Proposal

The Ministry of Environment Conservation and Parks (MECP) reviewed provincial policies, programs and science tools for managing water takings in Ontario. Independent consultant BluMetric also completed an assessment of water resources in the province, focusing on selected water quantity study areas potentially vulnerable to the cumulative effects of multiple water users, drought, climate change, population growth or changing land use. Additionally, the consultant evaluated whether existing permits to take groundwater for the purpose of water bottling are being adequately managed within the water taking permitting framework. Findings of the MECP and BluMetric assessments were validated by a third-party panel from Professional Geoscientists Ontario (PGO).

The ERO posting also contains a Proposal Paper that outlines MECP's proposed goals and actions, for which the public's input is requested prior to the government undertaking enhancements to Ontario's water quantity management program.

General Comments

With TRCA's roles, responsibilities and experience in mind, we offer the following comments on the MECP proposals as outlined in the Proposal Paper, BluMetric, and PGO reports, and general feedback on policies and programs associated with water taking in Ontario.

Given our experience as watershed managers and having local knowledge of water resource conditions, conservation authorities and municipalities warrant greater consultation for Permit to Take Water (PTTW) reviews. While PTTW applications are circulated to TRCA, we currently have a limited role in the process. It is typically when a proposed project triggers permit requirements under section 28 of the *Conservation Authorities Act*, (TRCA Ontario Regulation 166/06), that we review extensively for construction de-watering operations. We note that the provincial review did not include an assessment of the impacts of permanent de-watering for development and infrastructure, yet these types of operations can weigh significantly on groundwater levels, affecting environmental receptors (wetlands, watercourses) as well as drinking water supplies.

Water taking permit review should better recognize the dynamic nature of the water resource system, adjusting for the amount of water in the system, rather than allowing a constant draw regardless of adverse conditions such as drought. The amount of allowable water to be taken should be tied to the water budget of the area feeding the groundwater. For example, this could be based on the amount of rainfall at the point where the groundwater system is primarily recharged and decreased during times of prolonged dry conditions or lack of rainfall on the primary recharge points. Target rainfall volumes can be investigated and provided to trigger specific water taking maximums. This will require that the proponent conduct a more comprehensive analysis of the groundwater system, including water budgeting, to establish precipitation targets for specific water taking volumes.

The provincial review's conclusion that water taking in Ontario is generally sustainable is uncertain, since the assessment did not take into account all of the water available or being taken. As a starting point for a more comprehensive approach to assessing water resources, conservation authorities, in their role as source protection authorities under the *Clean Water Act*, could be tasked with updating their 2010 water budgets.

Another ongoing concern for PTTW, is that the provincial review process does not currently have the tools to consider cumulative impacts when issuing permits. Conservation authorities endeavor to take this perspective in watershed planning and source water protection and would welcome the opportunity to offer our expertise and experience to assist in updating and more greatly participating in the provincial review processes.

The following comments are organized by the ERO proposal's areas of change for which we are providing input. **Bolded text** indicates TRCA's main suggestions and recommendations for the Ministry's consideration.

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Introduction	
Ontario's framework for managing water takings	
The water bottling moratorium	As stated in the Professional Geoscientists Panel report, the volumes of water withdrawn by water bottlers are negligible overall. TRCA agrees with the Panel that placing a moratorium on a single industry is not a necessary step from a technical standpoint.
The ministry's water quantity management review	Further to the comment above, it would be preferable to have a more comprehensive review of water use instead of a focus on a single industry (i.e., water bottling).
Main conclusions of the review	
Ontario has an effective framework for managing water takings	Ontario's water quantity management framework needs to be more robust, as currently not all types of water takings are captured. Some water takings are regulated through the Permit To Take Water process (PTTW), some through the Environmental Activity and Sector Registry (EASR), and some are completely exempt. Second, there is little to no assessment of the cumulative impacts of water takings in these review processes. It is critical to understand how much water takers are using in total in order to better assess sustainability.
Bottled water takings are being managed sustainably under the existing framework	We agree but are concerned that other types of water takings are not being adequately assessed.
Water resources in Ontario are generally sustainable, with a few local exceptions	This conclusion is uncertain since the assessment does not take into account all of the water available or taken. As a starting point for a more comprehensive approach, conservation authorities, in their role as source protection authorities under the Clean Water Act, could be tasked with updating their watershed-based water budgets, last prepared in 2010.
Opportunities to enhance the current framework to be more resilient to current and future water quantity management challenges	There are several opportunities to enhance the current framework – better data, more open data, and better cumulative assessment.
Where do we want to go?	
Goal 1: Establish clear provincial priorities of water use	
Proposed Action: Establish priorities of water use in regulation (O. Reg. 387/04 amendment)	We support this clarification of priorities for assessment in the review process.

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Proposed Action: Provide guidance on applying priorities of water use	If priorities are established, this will be key to consistent application across the province.
Discussion Q: 1. Do you support including priorities of water use in regulation? Why or why not?	TRCA supports establishing priorities of water use in regulation. Municipal water supply needs to be secure, while ecological needs, particularly for surface water takings, are equally important for human and environmental health. Certain commercial needs are also vital to a thriving economy yet these takings need to be assessed against municipal drinking water sources and natural resources.
Discussion Q: 2. How should priorities of use be applied to water taking decisions? When should it be applied? What process should be followed? Who should be involved? What information should be considered?	Priorities should be used to communicate with water users during droughts. As Environment is listed as the first water use priority (equal with Drinking Water), the Province should explicitly acknowledge the need for a robust decision-making framework for determining environmental use allocations when large water taking permits are under consideration (either for large individual permits or for a high concentration of smaller permits within a given area). This acknowledgement is needed to recognize that it is challenging to determine "environmental flow needs" (EFN, from BluMetric report) without first having some statement of ecological values or priorities. The Province could survey assessment tools and targets from the science of EFN and the availability of tools which have proliferated in recent years (as outlined in the BluMetric report). Municipalities, conservation authorities, and the public should be given opportunity to comment on the Province's preferred framework. We recognize the need for a framework that is relatively simple and has some flexibility to account for different levels of data availability and/or system sensitivity.
Discussion Q: 3. Municipal drinking water supply is proposed as a highest priority use. What municipal drinking water needs should be considered a priority (e.g., current, planned growth, longer-term growth)?	For municipal use, long term growth must be considered, especially for communities that are groundwater-dependent. These communities must have confirmed supply for the 30-year horizon, otherwise, growth allocated to these areas may not be sustainable. This would align with the Province's currently proposed forecast period for the Growth Plan for the Greater Golden Horseshoe of 2051 (to be extended from the current 2041).
Goal 2: Update our approach to managing water takings in stressed areas	
Proposed Action: Add authority in regulation to manage water takings	TRCA supports this proposed action, particularly since cumulative impact assessment for water takings is a gap in the framework. The action is supported contingent on the areas to

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on an area basis (O. Reg. 387/04 amendment)	be managed being kept current. Given our roles in source water protection and watershed management, conservation authorities can be a valuable resource in the identification of areas that may become stressed in the future.
Proposed Action: Update existing guidance for managing water takings on an area basis	The proposal to provide clearer direction to Permit to Take Water Directors for assessing a group of water takings on an area is a positive step towards greater understanding of cumulative impacts; having the direction in regulation will also improve transparency and certainty for all stakeholders.
Proposed Action: Develop additional guidance for managing water takings in drought conditions	We agree that the Ontario Low Water Response policies and activities should be incorporated into the proposed framework to cooperatively manage low water and drought mitigation and response locally. We note that funding for conservation authorities under the Low Water Response Program was essentially discontinued a few years ago. Conservation authorities welcome the opportunity to offer our expertise and experience from watershed management and source water protection assessment but require funding to participate.
Proposed Action: Replacing high use watershed maps and prohibitions in the regulation (O. Reg. 387/04 amendment)	We support the proposal to replace the high use watershed maps with updated guidance for managing water takings on an area basis, and for how to manage water when drought conditions occur. This is contingent on the guidance being updated regularly, because our knowledge of the available groundwater resources and the magnitude of groundwater withdrawals evolves over time.
Discussion Q: 1. Under what circumstances should the ministry consider assessing and managing water takings on an area basis?	• Areas of moderate or significant risk as calculated by a Tier 3 Water Budget under the <i>Clean Water Act</i> • Requests from municipalities • Requests from conservation authorities • When drought conditions (as indicated under Ontario Low Water Response) are reported for an area for three consecutive years. Further to the above, the Ministry should consider an explicit trigger or threshold for determining when the cumulative impacts of smaller water takings are of concern to environment, drinking water, and other water uses. This threshold should be automatically triggered when a certain density of permits is reached within a given horizontal radius and/or stream reach distance, with different thresholds applying to areas/municipalities adjacent to the Great Lakes versus those in interior/headwater settings (and possibly another threshold in between those two extremes of settings). Thresholds would also

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	need to be assessed relative to the estimated available water in a system (e.g. % allocated of total available); in light of the increased stress on aquatic ecosystems during summer and early fall, thresholds of water use should take into account water availability this period rather than relying on annual total availability, in accordance with approaches taken by other jurisdictions (as outlined in the BluMetric science review).
Discussion Q: 2. What suggestions do you have for the process of assessing and developing a strategy to manage water takings on an area basis? For example, how should local water users, stakeholders, and Indigenous communities be engaged?	Local water users should be contacted through information on their PTTW or EASR application. Groundwater use data should be collected in stressed areas, including domestic use. Water users should be required to report their groundwater use on an annual basis even if they have not obtained a PTTW.
Discussion Q: 3. How can the province help water users be more prepared for drought?	Education and outreach activities regarding approaches for water conservation.
Goal 3: Make water taking data more accessible	
Proposed Action: Enable sharing of government water quantity data (O. Reg. 387/04 and O. Reg. 63/16 amendments)	This would be very welcome.
Proposed Action: Enhance access to government water quantity data	This would be very welcome.
Discussion Q: 1. Is there any water quantity and monitoring information reported to the ministry that should not be made publicly available? If so, why?	No. This is a public resource, and public has a right to know how it is being used.
Discussion Q: 2. Would the proposed online resource be helpful to you? Why or why not? Are there other mechanisms for sharing this information that would be helpful to you?	Yes, but TRCA would prefer regular release of data such that it can be incorporated into our overall watershed management system, currently maintained by the Oak Ridges Moraine Groundwater Program.
Discussion Q: 3. What data would you like to see included in the online resource?	Having daily water use data for all existing and future permits available to the public through a user-friendly online portal would be a positive step forward for water management in Ontario. All data on groundwater quality, quantity and monitoring should be available through the online resource. More specifically, location and aquifer for taking, or at least depth of wells, daily volumes, duration, and source. Further, the data should include

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	all water use data submitted to the Ministry in fulfillment of permit requirements, and data should list daily total withdrawals (rather than being summed to coarser timescales, e.g. weekly/monthly). TRCA supports the Professional Geoscientists Panel's assertion that making water use data available to the public would help to ease concerns among the public about over-allocation of water resources within certain stream reaches (based on total permitted allocations within the current system that tend to reflect unrealistic maximum withdrawal rates).
Discussion Q: 4. How would you like to see water quantity data presented? What are the most useful formats (e.g. maps with embedded information, reports, tables, story pages)?	A geo-referenced mapping portal would likely be the best tool for presenting the data and making it available. The Oak Ridges Moraine Groundwater Program has developed a cutting-edge user portal that may provide a useful template for elements of a potential provincial water quantity management data portal (https://www.oakridgeswater.ca/).
Discussion Q: 5. What water resources information and guidance would you like to see made available to the public?	Source, including aquifer, where known. In addition, the public should be able to see a summary report of the efforts put forth in the permit review process before a PTTW is issued. Further, a list of studies/reports required for future continuation of the permit will provide more assurance to the public that a sustainable water use has been ensured and there are tools available with the Ministry to restrict water use, if warranted.
Goal 4: Give host municipalities more input into water bottling decisions	
Proposed Action: Require water bottling companies to report whether they have support from the host municipality when applying for a new or expanded water taking (O. Reg. 387/04 amendment)	See comments for discussion Q. 1 below.
Discussion Q: 1. Do you support the proposal to require water bottling companies to seek support from their host municipality when applying for a Permit to Take Water? Why or why not?	TRCA recommends that all water takings, not just water bottling, within municipalities that have municipal wells, should require municipal support.

Final Report and Recommendations of the Professional Geoscientists Ontario Panel	
Cumulative assessments of impacts from water use	As indicated in our comments on the Proposal Paper, the PTTW process does not currently have the tools to consider cumulative impacts when issuing permits. Conservation authorities endeavor to take this perspective in watershed planning and source water protection, and would welcome the opportunity to offer our expertise and experience to assist in the provincial review processes.
Consumptive Use	TRCA supports the Professional Geoscientist Panel in that most takings should be considered consumptive, because they generally move water from ground to surface or from one surface water feature to another. In both cases, the water does not end up where it started from.

BluMetric Report	
General	This report is well researched and well written, but dependent on Permit To Take Water data, which is not necessarily complete.
Climate Change	Future projections of climate change impacts on both groundwater and surface water resources need to be more consistent across the province.
Public Data	TRCA supports the recommendation for public access to water taking data.
Land Use Planning	TRCA has made recommendations to the Ministry of Municipal Affairs and Housing on Growth Plan Amendment 1 to enhance the Growth Plan's watershed planning policies to specifically direct development to meet stormwater management criteria for water quantity and water balance for environmental and municipal drinking water purposes (in addition to erosion and water quality). If the PTTW process were also to adopt a watershed or sub-watershed perspective, (as suggested above through the "area-based" approach), this would enhance coordination and consistency of provincial and municipal approaches to water resource management.

Ontario's Water Taking Policies and Programs	
Pump Tests	TRCA would support a simplified process for pump test approvals, such as the EASR system, to promote the acquisition of the best available information on a streamlined basis. In TRCA's experience, we want to encourage proponents to make

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	use of the best available data, but because of approval delays and permit costs, such tests are often not performed.
Water Use	It is clear that PTTW are being obtained for much more water than is required. The Ministry should consider ways for applicants to provide more realistic estimates - perhaps an added field for "anticipated daily volume" in addition to the maximum permitted rate. Another approach would be to add flexibility such as exists in the EASR process, where short term exceedances are allowable, without fear of enforcement action.

Thank you once again for the opportunity to provide comments on updating Ontario's water quantity management framework. Should you have any questions, require clarification on any of the above, or wish to meet to discuss our remarks, please contact the undersigned at 416.667.6290 or at john.mackenzie@trca.ca.

Sincerely,

<Original signed by>

John MacKenzie, M.Sc.(Pl), MCIP, RPP
Chief Executive Officer

BY E-MAIL

cc:

TRCA: Laurie Nelson, Director, Policy Planning and Regulation
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