

Sunday, August 2, 2020

The Honourable Jeff Yurek
Minister of the Environment, Conservation and Parks,
Ontario Ministry of the Environment, Conservation and Parks,
135 St. Clair Avenue West, 1st Floor,
Toronto, ON M4V 1P5

Dear Minister Yurek,

**RE: Proposal – Updating Ontario’s Water Quantity Management Framework
– Environmental Registry Notice #019-1340**

The City of Guelph (City) appreciates the opportunity to comment on the Proposal to Update Ontario’s Water Quantity Management Framework (the “Proposal”). The Province of Ontario (Province) is proposing 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 City has a keen interest in the efforts of the Province and the Ontario Ministry of Environment, Conservation and Parks (MECP) to manage water takings to protect the long-term sustainability of Ontario’s water resources. The City’s interests are primarily with respect to protection of the water resources in and around the City of Guelph that are used as sources of municipal drinking water. For water supply purposes, the City has numerous Permits to Take Water (PTTW) for groundwater wells and wellfields, a groundwater collection system and a surface water taking on the Eramosa River.

We are in receipt of the Environmental Registry of Ontario Notice 019-1340 – Proposal – Updating Ontario’s Water Quantity Management Framework under the Ontario Water Resources Act and in particular, the PTTW process. The City has reviewed the technical support documents prepared by BluMetrics with respect to the water quantity management framework including the Science Review Report, the Jurisdictional Review Report, Lessons Learned, Water Quantity Study Area Assessment Report and the Water Bottling Study Area Report as well as the Report and Recommendations of the Professional Geoscientists Ontario Panel.

Please find below our comments on the Proposal. We note that the Proposal provides goals and desired outcomes that require further definition and actual wording of regulations and guidelines to be properly evaluated and therefore these comments may be subject to further detail or clarification as more information is provided by the Province.

General Comments with Respect to Water Quantity Management in Ontario

The City supports proposing 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 Proposal states:

"Ontario has an effective framework for managing water takings. The current framework for managing water takings in Ontario is well suited to assessing and managing the impacts of individual water taking proposals".

In contrast, the BluMetrics Water Managers Workshops Report (Section 2.6) states:

"The majority of Water Managers indicated that water takings are inadequately managed under Ontario's regulatory and policy framework. Modifications to the framework should ensure that Ontario's regulatory and policy framework for management of water takings is adequate to respond to current or potential future water scarcity and that provincial and local data, science and management tools are available to support water taking decisions to adequately respond to current or potential future water scarcity."

The City supports the position of the majority of the Water Managers. The City's Water Managers are also concerned about potential future shortages of municipal drinking water and have long advocated for sharing of water taking information and funding support for advancing scientific understanding through the development of water taking modelling tools for groundwater and surface water. The City's primary concerns with respect to water quantity management are based on the following:

- As a requirement of the Clean Water Act (CWA), the City, in conjunction for the Lake Erie Region Source Protection Authority, completed a Tier 3 Water Budget and Local Area Risk Assessment (Tier 3 Study) in April, 2017 which identified a Significant Risk of the City not having sufficient water to meet its future needs under drought conditions. This study, which is the first, comprehensive water budget study for the area, presents the early warning of future water shortages for the City of Guelph. The study was conducted using a state-of-the-art, integrated groundwater – surface water model. The model has applications in water quantity management and the City has applied the model in PTTW applications for Nestle Waters Canada, the Dolime Quarry and the proposed Lafarge Quarry, however, the model is not routinely used in reviews of PTTW applications by MECP.
- The Tier 3 Study also identified a risk of significant base flow reduction in a number of creeks and streams in Guelph and the surrounding area resulting from the future demand (i.e., 2038). The additional groundwater taking to meet the future water demand in 2038 was predicted to reduce base flow in a number of local creeks (i.e., Torrance Creek, Chilligo/Ellis Creek, Hanlon Creek, Blue Spring Creek and Irish Creek) by 14 to 41 percent. These predicted base flow reductions in surface water are another indicator of potential water shortages in the future and raised questions regarding the sustainability of future water supply requirements for the City.

- The purpose of the CWA and the objective of Source Protection Plans are to protect existing and future water quality and water quantity of drinking water sources. As a result of the Tier 3 Study, a Wellhead Protection Area for water quantity (WHPA-Q) has been identified surrounding the City of Guelph and extending out into the adjacent Townships. Within the WHPA-Q, existing PTTW are considered Significant Drinking Water Threats for water quantity and Source Protection Plan policies are intended to ensure that drinking water threats cease to be or never become significant. However, the definitions of “future” are unclear in the applications of the CWA and it is uncertain as to how future water quantity will be protected particularly with future growth targets designated by the Province (see below). Given the warning signs of potential water supply shortages in areas such as the WHPA-Q, the PTTW process should be integrated with the Source Protection Plan policies to ensure that water quantity is protected for municipal drinking water sources, now and into the future.
- As a result of the Tier 3 Study, the City developed a Threats Management Strategy including a risk ranking of Significant Drinking Water Threats (i.e. PTTW’s). This study found that the PTTW’s in the WHPA-Q are over allocated in that there is insufficient water quantity in the WHPA-Q to meet the maximum water takings allowed in the permits. While it is recognized that the maximum water takings for all permits may not be realized at any time, the over allocation points to an accounting problem in that permits were approved without a good understanding of how much water is sustainably available in the WHPA-Q, how much water may be removed under the PTTW program and how much water should remain in the ecosystem to support environmental flow needs. This point was also raised by the Professional Geoscientists of Ontario Panel in their review of the provinces Water Management Framework (see Recommendation 4(a) in the PGO report). The City’s concern is that cumulative effects studies are not considered routinely in the PTTW program and typically, PTTW are evaluated on an individual basis without considering the impacts on the components of the local water budget or the potential future use of water by municipalities.
- The Tier 3 Study used predicted water demand forecasts for Guelph to approximately 2038. Under these demand forecasts, water shortages were predicted under drought conditions. The Province has recently released a Proposed Amendment 1 to A Place to Grow (APTG) for the Greater Golden Horseshoe as provided in the Environmental Registry of Ontario Notice 019-1680. The Proposed Amendment 1 provides growth forecasts to 2051 for population and employment for the City of Guelph. The 2051 forecasts increase both population and employment from the current 2041 forecasts. These growth forecasts are estimated to significantly increase the water supply demand for the City of Guelph. Given that the Tier 3 Study identified potential water shortages in 2038 under drought conditions, increases in water demand to 2051 will make the issue worse. Again, it is uncertain how future water quantity requirements will be protected under the PTTW process or under the CWA to ensure Guelph has water available to sustainably meet the provincial growth targets of 2051.

- Guelph is not the only municipality identified as having significant water quantity threats in the area. Centre Wellington and Orangeville, two municipalities to the north of Guelph, also have Significant Risk designations for future water quantity and have delineated WHPA-Q's. Whiteman's Creek and the Norfolk Sand Plain to the south of Guelph have also identified issues associated with water shortages although these concerns are associated with seasonal water takings and precipitation limitations. Future water shortages as identified through the CWA and Source Protection Programs should be integrated with the PTTW process to ensure that current and future water takings adequately protect future water quantities required for municipal drinking water.
- A significant amount of technical work and costs have been incurred in conducting the tiered water quantity assessments across the Province. These studies have provided a major improvement in our collective understanding of water budgets in the respective study areas. The Province may want to consider a similar tiered risk approach in the review of PTTW where areas of higher risk for water scarcity are identified and receive more detailed assessments as compared to lower risk areas. The Tier 3 Studies, in particular, have identified several areas within the Province where water supplies are stressed and may not meet future demand under various conditions. The documents associated with the Proposal do not seem to recognize the value of this work and the potential to utilize such information to help MECP improve their decision making in water management. The City would strongly advocate that the Tier 3 Studies be used as foundational materials for water quantity management in Ontario.
- Finally, the City has concerns regarding how water resources in the WHQA-Q will be managed in the future as a result of the above. The City has been advocating through the Source Protection Program for increased planning and development of water resources to ensure that they are appropriately managed to provide optimum water use currently and in the future. The City believes this should include:
 - Delineation of the Guelph WHPA-Q as a special policy area for PTTW's;
 - Enhanced communication and consultation between the City, the GRCA, MECP and permit holders on PTTW applications in the WHPA-Q;
 - Consideration of cumulative effects associated with existing and future non-municipal permits to ensure sufficient water quantities for future growth of municipalities;
 - Enhanced monitoring programs in the WHPA-Q facilitated by conditions within non-municipal PTTW's;
 - Sharing of data and information from non-municipal PTTW holders with the City and GRCA;
 - Additional surface water monitoring programs in low-order streams in the WHPA-Q to add to existing high-order monitoring programs through Environment Canada's HYDAT hydrometric data; and

- Funding to support the maintenance and continuous improvement of the Tier 3 water budget models using the data and information generated from the above.

The City's review of the Proposal to Update Ontario's Water Quantity Management Framework has focused on the concerns identified above and we have evaluated the Proposal against how the Proposal addresses these concerns.

We have organized our comments on the Proposal according to the four Goals in the Proposal, which are listed as follows:

- Goal 1: Establish clear provincial priorities of water use
- Goal 2: Update our approach to managing water takings in stressed areas
- Goal 3: Make water taking data more accessible
- Goal 4: Give host municipalities more input into water bottling decisions

For each Goal, we have provided summary comments, detailed comments and responses to the discussion questions.

Goal 1: Establish clear provincial priorities of water use

Goal 1 – Summary Comments

The City of Guelph supports setting priorities for water use with municipal drinking water as a highest priority use. The effectiveness of "Goal 1" will be determined by the manner in which water-taking priorities are set and subsequently managed. For example, how will the environment and drinking water be prioritized during situations of competing interests? How will the idea of priorities affect the previous concepts of "fair sharing" and "first in time, first in right" where a water taking is already established? As currently outlined in the Proposal, the City is uncertain how prioritization will be incorporated into the MECP review process for PTTW. The City firmly believes that prioritization decisions must be informed by a comprehensive understanding of the subwatershed in question, which would be gained through environmental monitoring, and establishing and maintaining a predictive water budget model (such as the Tier 3 model used in Guelph). Further, using a long-term growth lens, the water budget model should also be used to determine areas which will experience significant water quantity stress. These areas are then afforded additional protections (e.g., Special Policy Areas) that would be needed to sustainably manage additional water takings now and into the future.

The City would appreciate the opportunity to comment on how priorities are set.

Goal 1 – Detailed Comments

Comment: "When water is in short supply, decisions must be made about how the available water should be shared among water users (including the environment)." MECP could provide more explanation as to how they will determine when "water is in short supply". In the City's opinion, this

would require comprehensive monitoring of all components of the water budget and in particular groundwater levels and surface water levels and flows which, except for some particular areas of interest, are not available generally. Determining water shortages would require use of predictive model such as the Tier 3 water budget models and MECP should provide additional information on how this would be done and how the MECP would maintain the models so that they are applicable tools.

Comment: "Setting out priorities of water use in Ontario would provide clearer and more consistent direction for managing water takings in situations where there are competing demands for water." In setting out priorities, MECP should consider revising the concepts within their "Water management: policies, guidelines, provincial water quality objectives" such as "fair sharing" and "well interference". Setting priorities would presumably negate the concept of fair sharing in providing priorities for municipal drinking water over industrial water takings. Well interference is generally based on the concept of "first in time, first in right" where new water takings cannot interfere with existing water takings. Setting a priority of one use over another regardless of when the water taking was established would change a long-standing position on water rights in Ontario.

Comment: "Highest priority uses would be considered in the following order:

1. Environment and Drinking Water (equally)

- **Environment (e.g., maintaining stream flows, water levels and water quality to protect human health and sustain freshwater ecosystems)**
- **Drinking Water (e.g., municipal and Indigenous water supplies, private domestic use, livestock watering, schools, hospitals)"**

MECP should consider providing further explanation as to how Environment and Drinking Water will be considered equally since they have competing interests. A groundwater taking for municipal drinking water, for example, may decrease environmental flow needs by decreasing stream flows. If they are treated equally, the priority of one would be at the detriment of the other. In considering setting priorities, MECP may want to establish factors to be considered in the setting of priorities. For example, a priority for municipal drinking water could consider social and economic benefits of additional water supply to meet provincial growth targets in exchange for some degradation of the environment. In areas where there are existing water shortages, the setting of priorities may need to consider the sustainability of the water resources and future water needs of municipalities against lower priority uses as well as water budget considerations. Managing priorities may need to eliminate a lower priority use in order to add a higher priority use to maintain the water budget and not result in impacts to the environment.

Comment: “The priorities of water use could also guide decisions for permitting new or increased water takings in areas where longer-term water sustainability is a concern.” MECP should consider defining “longer-term water sustainability” since Guelph already has concerns on longer-term sustainability based on the Tier 3 Study results and considering the 2051 growth targets in Places to Growth. In a literal interpretation of this sentence, MECP should be using priorities to guide current PTTW decisions in the City’s WHPA-Q. If future water needs are not prioritized then growth targets may not be achieved due to lack of sustainable water. Continued growth which equals increasing water demands will result in less sustainable water supplies where the water resources are already stressed, such as in Guelph.

Comment: “It is intended that any restrictions imposed on water takers based on the proposed priorities of water use would be exercised as a last resort, once other approaches to address competing demands for water have been exhausted.” The concept of setting water use priorities as “a last resort” should be reconsidered. Planning, developing and managing water resources should be implemented well in advance of a last resort measure such that setting priorities provides for the optimum use of water for the greatest benefit of society. Monitoring of the water resources need to begin now so there is sufficient understanding to manage the resource in the future and to provide for priority allocation of water.

Comment: “For example, the ministry would ensure that higher priority water users are taking reasonable measures to optimize their water supply, storage, and distribution infrastructure, including using water efficiently and addressing water leakage, before requiring lower priority users to reduce their water takings.” These measures appear to apply to municipal water uses only and appears to put the onus on municipalities to demonstrate that they are using the water efficiently. Progressive water efficiency and water loss management programming are long standing ongoing operational initiatives at the City of Guelph and it would stand to reason that lower priority users should have a similar standard to demonstrate that they are using water efficiently. At a minimum, these measures should be applied equally to all users and the Province should provide coordination on efficiency performance metrics to ensure that all uses are at a similar level of efficiency. Most responsible municipalities are already taking reasonable measures to optimize their water supplies and to use water efficiently. Guelph, for example, uses the Tier 3 model and 5-year updates to its Water Supply Master Plan to optimize its existing and future water supplies, Guelph meets industry standards for non-revenue waters (i.e. leaks and other losses) and, through its water conservation measures, Guelph has some of the lowest per capita consumption of water and seasonal utility peak day factors in the province.

Goal 1 - Response to Discussion Questions

Response: "Do you support including priorities of water use in regulation?

Why or why not?" Yes, City staff support setting priorities for water use with municipal drinking water as a highest priority use. However, the approach proposed, as described above, appears to put the onus on a municipality to demonstrate that they are doing everything they can to use water efficiently before MECP might invoke the priority of use. As stated above, non-municipal water uses are not subject to these same constraints. An alternative approach for consideration might be to have the lower priority uses demonstrate that they need the water, they are taking the appropriate steps to conserve water and they have provisions ready in the event that their water taking is reduced.

Response: "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?" To apply a process for making priority of use decisions, there would need to be a complete accounting of the components of the water budget for the area of interest. MECP would need to understand the inputs and outputs of the water budget including recharge, the details of existing consumptive water takings, the future municipal water takings to meet growth targets, the environmental flow needs and allocations for other water uses (i.e., assimilation of waste water, recreational uses, power generation, etc.). The components of a water budget can be simulated using computer models such as the integrated groundwater-surface water models used in the Tier 3 Study but the models would need to be maintained and enhanced using more comprehensive environmental monitoring programs. As noted above, additional groundwater and surface monitoring is suggested to provide data to improve the calibration of the computer models to reduce uncertainties and to improve the reliability of the model predictions. Similarly, detailed information on actual consumptive water taking should be used rather than estimates based on maximum permitted water taking. Consideration would need to be provided to address the environmental flow needs which would likely require additional surveys and monitoring of ecosystems (i.e., aquatic habitat and population surveys) in the area of interest. Water Quantity Stress Assessments could be applied using the guidance from the CWA and Source Protection Programs and priorities should be established as soon as significant stresses are identified. When significant water quantity stresses are identified based on future scenarios, processes should be put into place as soon as possible to manage water quantity to ensure stresses do not get worse in the future. Once the water budget components are thoroughly understood, the MECP could apply the area-wide requirements of the PTTW Manual (April, 2005) particularly the requirements for water balance and sustainability studies and environmental flow needs. The assessments could establish "sustainability targets" which would permit water taking to a point where the environmental flow needs are met. Once the sustainability target is reached, new water taking requests would only be allowed if there were reductions in other water takings equal to or greater than the request.

Municipalities (i.e. high priority use), need to be involved in water taking decisions in stressed areas since municipalities have responsibilities for water quantity source protection for existing and future drinking water sources. Source protection water quantity policies can also be used as a process to manage water quantities in stressed areas.

Response: "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)?" Municipal drinking water needs for the longer-term should be considered a priority. The longer-term should be considered as the planning horizon for Places to Grow, currently proposed for 2051. Planned growth can be considered to only be that which has received approval through a Class Environmental Assessment as per the CWA. Longer-term growth including the planning horizon for Places to Grow would consider the future needs of a municipality and set into place the appropriate measures to protect existing and future drinking water sources as per the requirements of the CWA. Longer-term growth would be determined through Master Plans and Comprehensive Municipal Reviews to update municipal Official Plans. If the drinking water needs to 2051 were not considered a priority, then municipalities may not achieve the growth targets in Places to Grow in that the water may not be available in future years. This would be particularly true where Significant Risk has already been identified under future allocated rates under the CWA.

Goal 2: Update our approach to managing water takings in stressed areas

Goal 2 – Summary Comments

In order to guide effective management in water quantity-stressed areas, it is critical that we understand the cumulative effect of multiple water takings on stream flows, water levels (including groundwater levels) and other water users. This understanding requires comprehensive environmental monitoring and predictive modelling tools, which would be coordinated and funded by the Province. Water budget studies (at least Tier 2 Water Budgets) have been completed across Ontario under the Clean Water Act (CWA) and Source Protection Programs. We would strongly suggest that MECP consider coordinating the PTTW process with municipal Source Protection Programs since source protection is intended to protect water quantity for existing and future sources of drinking water. We wish to stress that the Tier 3 Water Budgets, where they are available, represent the best and most current understanding of water quantity in Ontario and the water budget data and models should be used to evaluate new PTTW and renewal PTTW applications.

We recommend that circumstances for defining "stressed" areas be identified as per the details outlined in MECP's CWA Technical Rules and would include groundwater and surface water. Assessing and managing water takings should be done on an area basis when water budget studies indicate water resources are

stressed. Water taking decisions should be made with input and coordination from local municipalities since municipalities a) are significant water users; and b) have responsibilities for water quantity source protection under the CWA. A public consultation forum similar to what is required for municipal Class Environmental Assessments is recommended to engage water users, local stakeholders, and Indigenous communities in situations of proposed municipal and non-municipal water takings.

Guidance documents from Source Protection Programs include methods for determining drought susceptibility, as applied in the Tier 3 water budget studies. Drought preparedness requires provincial leadership in providing (a) education programming including persistent and actionable messaging backed by provincial and municipal science and data, (b) enforcement for non-compliance and (c) clear action plans to address areas with deficiencies.

Overall, based on the Proposal, it is not clear as to how areas with water sustainability issues will be managed. City staff would request that the MECP provide further details on management actions that may be applied in the stressed areas and on what basis would the actions be implemented.

Goal 2 – Detailed Comments

Comment: “Understanding the cumulative effect of multiple water takings on stream flows, water levels (including groundwater levels) and other water users is critical to guide effective management actions in areas experiencing water quantity stress.” This is a critical statement and we fully agree. However, to understand the cumulative effects requires comprehensive environmental monitoring and predictive modelling tools. For some areas of the province, the predictive modelling tools are available from the CWA Source Protection Program where Tier 3 studies have been completed. Even where water budget models are available, the reliability of predictions can be improved and the uncertainties reduced through comprehensive monitoring programs including area-wide groundwater level monitoring, surface water flows and level monitoring in low-order streams and determination of instream flow requirements for critical reaches of surface waters. While municipalities typically have comprehensive monitoring programs for its water supplies, these programs often do not extend to wider areas outside the immediate area of influence of the water supply sources. The City would suggest, to understand cumulative effects of all water takings in a stressed area such as a WHPA-Q with a Significant Risk designation, more comprehensive monitoring programs coordinated and funded by the Province are required.

Comment: “An updated approach to managing areas with water sustainability concerns that is adaptive to changing conditions and that can tailor assessments and management actions to local circumstances, is needed.” The City agrees with this point. We would suggest that MECP consider coordinating the PTTW process with municipal Source Protection Programs since source protection is intended to protect water quantity for existing and future

sources of drinking water (a highest priority use) and PTTW's are considered drinking water threats under the CWA (i.e., O. Reg. 187/07 Section 1.1 Prescribed drinking water threats: (1) 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). The objective of a Source Protection Plan is to ensure that, in a WHPA-Q, a water taking activity ceases to be a significant drinking water threat if it is occurring currently or never becomes a significant drinking water threat.

In the City's opinion, it is not clear as to how areas with water sustainability issues will be managed. It would be helpful if the MECP could provide further details on management actions that may be applied in the stressed areas and on what basis would the actions be implemented. Information on how the MECP would implement the priority of use in Goal 1 in management actions would be useful. Also, adapting to changing conditions would require comprehensive monitoring of groundwater and surface water in the stressed areas and it is not clear how the MECP might achieve this in order to determine management decisions.

Comment: "The ministry is proposing to enhance this existing authority (O. Reg. 387/04) by amending subsection 4(2) of the regulation to add explicit direction for Permit to Take Water Directors to consider, where relevant, the effects of a group of water takings on water availability and aquatic ecosystems within an area." The City supports this enhancement to the Water Taking and Transfer Regulation particular in its application for non-municipal water takings in order to ensure that existing and future municipal water takings are protected. However, the City is concerned about how this may be applied in consideration of new municipal water takings. The MECP may need to consider the requirements under the CWA to protect water quantity for existing and future drinking water sources particularly where the new water takings are to service growth mandated by the Province. It would be counterproductive if the enhanced regulation was used to hamper development of new municipal sources. Instead, the City would suggest that it be applied to identify priority of uses and manage water takings in the area to ensure that municipal drinking water is the highest priority.

Comment: "The ministry is proposing to update existing guidance to provide clearer direction to Permit to Take Water Directors for exercising their authority to make permitting decisions in a manner that assesses and manages a group of water takings on an area basis." In concept, the City agrees with providing additional guidance for permitting decisions, however, until the guidance is provided, it is difficult to comment. The City would suggest that guidance for water budgets and water quantity assessment have already been provided through water quantity components of the CWA-, as per details provided at <http://www.waterbudget.ca/>. Rather than developing new, the City would suggest that the MECP rely on the guidance already developed for the Source Protection Programs.

For **“circumstances in which an area-based approach should be considered (e.g., when water resource sustainability is a concern)”**, the City would suggest the MECP consider using the WHPA-Q where it is available since it is an established approach with well-defined procedures (see <http://www.waterbudget.ca/>).

For **“processes for undertaking assessments and developing a management strategy for an area”**, the City would again suggest following the Source Protection Program approach under the CWA which allow for a Risk Management Measures Evaluation Process, a Threats Management Strategy and a Risk Ranking, all of which are geared towards water quantity management (see <http://www.waterbudget.ca/>). However, assessments, particularly cumulative impact assessments, will require comprehensive monitoring data for surface water and groundwater to support predictive modelling tools and, in many cases, the existing monitoring data may not be available, may not represent current conditions and may not have sufficient coverage of the study area to aid in the assessment.

For **“methods and standards for undertaking technical studies, for example to assess sustainability, cumulative effects, environmental flow needs, or drought susceptibility within an area”**, the City would again suggest applying the guidance documents from Source Protection Programs (see <http://www.waterbudget.ca/>) which also includes methods for drought susceptibility as applied in the Tier 3 water budget studies. For Cumulative Effects Assessment, MECP may want to consider guidance documents prepared for federal and provincial environmental assessments such as the Cumulative Effects Assessment Practitioners Guide (<https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/cumulative-effects-assessment-practitioners-guide.html>). For environmental flow needs consult the Instream Flow Council (<https://www.instreamflowcouncil.org/resources/>).

For **“engaging water users, local stakeholders, and Indigenous communities in the process”**, the City would suggest that MECP consider public consultation programs as required for municipal Class Environmental Assessments (Schedule B or Schedule C depending on the scope and complexity of the project) (see Municipal Engineers Association – Municipal Class Environmental Assessment). For community engagement, the City applies its Community Engagement Framework (<https://guelph.ca/plans-and-strategies/community-engagement-framework/>). The City would suggest that municipalities and conservation authorities affected by the water taking are essential stakeholders and should be required for any engagement for water taking assessments. The City would suggest that organizing Technical Working Groups consisting of Water Managers from local municipalities and conservation authorities working with the MECP to assess water taking proposals and requirements and to coordinate information sharing in the study area.

For non-municipal water takings, a comprehensive community engagement program is considered essential. New municipal water takings would require a Class EA which mandates public consultation. New water takings for non-municipal water takings do not have this requirement and therefore there is a disparate level of engagement between the two. To level the playing field between municipal and non-municipal water taking, the City would recommend that MECP, for non-municipal water takings, use an approach similar to the Class EA process and implement consultation and community engagement programs.

For **“coordinating water taking decisions within an area with other provincial programs, such as drinking water source protection and Ontario Low Water Response”**, the City would strongly advocate that water taking decisions are coordinated with local municipalities. Municipalities have responsibilities for water quantity source protection under the CWA and, for designated WHPA-Q, municipalities will have water quantity protection policies. In addition, municipalities are significant water users (i.e., 61 percent of water use in the Grand River watershed is by municipalities) and are most likely to be impacted by water takings. In addition, municipalities have water quantity data and modelling tools developed through water supply and source protection programs that can be used to aid in decision-making processes. Coordinating water taking decisions with the source protection programs is consistent with the recommendations from the Made in Ontario Environment Plan which states (page 14): “Ensure the knowledge gained through the drinking water source protection program helps inform our water management programs.”

Comment: “The ministry is proposing to develop additional guidance that would encourage proactive measures to manage water takings under drought conditions.” The City is supportive of this proposal subject to the details of the guidance. To be effective, however, definitions of “drought conditions” will need to be provided and not based on just monthly or summer precipitation levels. Considerations should be given to recharge conditions, groundwater levels, stream base flows and environmental flow needs for the determination of drought conditions. For example, the City relies primarily on deep confined bedrock aquifers for water supply that are less susceptible to dry summer conditions but may be affected by year-over-year lower than average precipitation conditions. The City does have a shallow groundwater collection system and a river water recharge system that are more susceptible to seasonal dry conditions. Guidance documents for proactive measures should recognize these different conditions that may apply to water takings in various areas during periods of drought.

To manage demand, especially in drought conditions, the City employs one of the longest-standing outside water use programs, supported by municipal bylaws, in Ontario. Paired with the provincial Low Water Response program, and the City’s local manager (Grand River Conservation Authority) for our jurisdiction, additional action-based guidance to the Low Water Response Agency related to drought conditions is prudent. In effort to prepare for the impacts of climate change, longer and sustained periods of dry to drought conditions and to meet the needs of our

source water quantity policy requirements, the City is undertaking the development of a drought response action plan. Currently applying leading technical direction manuals provided by the American Water Works Association, guidance from the province in this regard will help drive an effective plan within the context of Ontario.

Goal 2 – Response to Discussion Questions

Response: “Under what circumstances should the ministry consider assessing and managing water takings on an area basis?” The MECP should consider assessing and managing water takings on an area basis when water budget studies indicate water resources are stressed or approaching a stressed designation. Water budget studies, at least Tier 2 Water Budgets, will have been completed across Ontario under the CWA and Source Protection Programs. Circumstances for defining “stressed” areas can be as per the details outlined in MECP’s CWA Technical Rules and would include groundwater and surface water. It is expected the assessment areas would be at the subwatershed level, or, if there is potential for a significant risk designation, at the local area level for the stressed water supply systems. If stressed areas are identified, the MECP should consider implementing enhanced assessment programs to characterize the study areas and these could include enhanced groundwater and surface water monitoring programs and development and application of integrated groundwater – surface water models.

Response: “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?” The MECP should leverage the existing information developed through the Source Protection Programs and the CWA for assessing water takings. As noted above, water budgets are the essential starting point for managing water takings. MECP should also consider enhancing the characterization of study areas and improve or enhance monitoring programs for groundwater and surface water. For developing strategies, the City would suggest again that MECP leverage existing information from Source Protection Programs and the CWA. Where Tier 3 water budget studies have been completed, risk management measures and risk rankings will have been completed and these studies can be used in the development of water management strategies. The MECP should consider support for and application of existing water management plans such as the Grand River Water Management Plan (<https://www.grandriver.ca/en/our-watershed/Water-management-plan.aspx>) as a component of managing water takings. Section 4 Ensuring Sustainable Water Supplies is particularly relevant to managing water takings in the Grand River Watershed.

For engagement of local water users, stakeholders and Indigenous communities, the MECP could consider consultation and engagement process similar to the Class EA process for new water takings. The formation of Technical Working Groups for study areas that would consist of municipal and conservation authority Water

Managers working with the MECP to review and assess water taking proposals and to coordinate data collection and analysis would be beneficial for all.

Response: “How can the province help water users be more prepared for drought?” Drought can vary geographically, in duration and severity throughout the province and be difficult to forecast, and can result in great social and economic upheaval. Response requires the efforts of numerous stakeholders to help water users be more prepared. The City’s success in water conservation education and outreach has proven this to be an effective method to engage citizens and businesses and suggests that the MECP address the need for a comprehensive education and outreach program which considers all water users – permit holders, residents, and businesses – to address their role in drought planning, preparedness and limiting non-essential water use during periods of drought.

The province could be a leader in providing relevant (a) education programming including persistent and actionable messaging backed by provincial and municipal science and data, (b) enforcement for non-compliance and (c) provide clear action plans to address deficiencies. This includes specifying measures for reducing short-term demand, and provide water users the resources needed to help them reduce demand in a more direct and permanent manner. This can be done through their municipal partnerships, and is a fundamental part of building the resilience needed in communities as they effectively address this impact of climate change.

It is recommended that the MECP provide guidance in developing jurisdictionally-appropriate drought restriction program and permit municipality’s the flexibility to design to meet their specific needs, which includes a multi-tiered approach to drought-stage declaration. Providing the best science and data resources to municipalities to make well-informed decisions is another mechanism that could support current and developing municipal response programs to drought. Timely messaging and enforcement should be viewed as best practices and essential components of a successful drought response plan.

Goal 3: Make water taking data more accessible

Goal 3 – Summary Comments

The City fully supports making water taking data more accessible. However, providing access to data is only one component of managing water quantity for the province. The data must be appropriately managed, which would include quality assurance of data, timeliness of providing data, data compilation and data interpretation. Further, the information would need to be presented and formatted in a manner that would allow application in technical studies.

The City would suggest that provincial staff resources need to be devoted to compilation of the water taking data and providing interpretation of the data for characterizing study areas. Alternatively, the Province could provide funding to local municipal Water Managers and conservation authorities to manage the water taking data. If appropriately funded, the data could be used to enhance existing

water budgets studies and groundwater-surface water models to reduce uncertainties and limitations.

Goal 3 – Detailed Comments

Comment: “Improved and more timely access to water quantity data was identified as a key gap in the ministry’s review of its current water quantity management framework. Providing public access to water quantity data unlocks the value of the data and promotes increased trust and transparency in the government’s management of water resources.”

The City fully supports making water taking data more accessible. However, providing access to data is only one component of managing water quantity for the province. Data has to be appropriately managed to aid in managing water quantity and this may include quality assurance of data, timeliness of providing data, data compilation and data interpretation. Simple release of data does not aid water quantity management and it is not clear how the Province proposes to “unlock the value of the data”. The City would suggest that provincial staff resources need to be devoted to compilation of the water taking data and providing interpretation of the data for characterizing study areas. Alternatively, the Province could provide funding to local municipal Water Managers and conservation authorities to manage the water taking data. If appropriately funded, the data could be used to enhance existing water budgets studies and groundwater-surface water models to reduce uncertainties and limitations.

Comment: “The ministry is proposing to amend the Water Taking and Transfer Regulation (O. Reg. 387/04) and the Environmental Activity Sector Registry (EASR) - Water Taking Regulation (O. Reg. 63/16) under the *Environmental Protection Act*, to allow the ministry to make available to the public, water taking data currently being reported by permit holders, as well as monitoring data submitted in an application for or as a condition of a Permit to Take Water.” And “Water level, flow monitoring and survey data associated with permits would be shared with water managers and interested parties by request, with a longer-term goal of making the data available publicly.” The City fully supports this proposal. However, the effective use of the data and to “unlock the value of the data” requires more than just release of the data. The Province should consider release of the data but also applying staff resources to prepare the data for PTTW applications. Presumably, MECP has had access to the all the reporting data from the PTTW program for years but it is not clear how this data gets applied in the management of water quantity in the Province. The Province should explain how release of the data to the public will aid the Province in managing water quantity in Ontario. It would appear that in releasing the data to the public, the MECP is assuming that, somehow, other parties will apply the data in local water management programs.

The Province should provide more detail on the types of data and formats for releasing data. The daily water taking in PTTW’s, which is the only data common to all permits, is of limited use in and of itself. For example, the daily taking is difficult

to interpret since it could represent a taking for one hour a day, variable taking through the day or a consistent taking for the entire day and the rate of taking provides only limited information on the potential impacts of the water taking. Combining a daily water taking with a groundwater level for a groundwater taking significantly increases the value of the data and can provide information on aquifer properties, long-term seasonal trends and potential for environmental impacts. Similarly for surface water taking, providing daily water takings combined with surface water flows and levels would significantly enhance the value of the data and its application of the data for water quantity management. MECP should consider adding groundwater level information or surface water flow and level information to PTTW's to significantly improve the value of the water quantity data. Similarly for groundwater PTTW, MECP should consider adding one monitoring well in the same aquifer as the water taking which again would significantly increase the value of the data with respect to water quantity management and environmental impact assessment.

For data formats, the data should be provided in a format where it can be used in technical studies. The City would suggest that the Province develop a common data reporting protocols for environmental data that could be incorporated as terms and conditions within PTTW and the PTTW could be updated at the time of renewal to incorporate the data reporting protocols. Pictorial or mapping displays would be useful for public information but ineffective for use of the data in technical studies. Providing the data in database or spreadsheet formats will provide application in technical studies.

The City also has concerns regarding the "by request" process for sharing of water quantity data with Water Managers. Guelph, for example, would want daily takings and groundwater level monitoring information for all non-municipal permits in the Guelph WHPA-Q. Guelph would use this data to update and maintain its Tier 3 Water Budget model. This would require data requests for over 70 PTTW on an annual basis and create burden on MECP to respond to these requests. Since data requests are likely to be more critical in a stressed area such as a WHPA-Q, a more efficient method of sharing the data would be for MECP to add specific conditions in the PTTW in the WHPA-Q to have the permittee share the data with the municipalities in a format to be determined by the municipality. In this way, the data could be provided on an annual basis (i.e., by March 31 for the preceding year) without the need for annual requests for each PTTW and with no or little burden to the MECP.

Similarly, Guelph would want to receive technical information on any new or amended PTTW application in the WHPA-Q. The technical information would typically include the PTTW application and any supporting technical information (i.e., hydrogeology report, environmental impact assessment, etc.). The City currently receives notification for these applications as per the Water Taking and Transfer Regulation but then, each time, the City has to formally request the technical information from MECP. Sometimes, the information is provided and sometimes, the request is forwarded to the permittee who may or may not provide

the information. A streamlined process for the WHPA-Q, where application information is routinely provided to the City would aid in timely review and commenting on the applications.

Finally on this topic, release of data does not necessarily result in effective water quantity management. As part of this process, there needs to be an agency assuming responsibilities for compiling and interpreting all of the water quantity data into a management framework. It is not clear from the description of the “goals” that effective water quantity management will be achieved through setting priority of uses, defining areas of water quantity stress or making data more accessible. As an example of effective data management and sharing, the City would point to the Oak Ridges Moraine Groundwater Program as a visionary example of how data can be managed and shared effectively and efficiently. This program could be used as a basis for expanding the data network to the rest of the province. As noted on their webpage: “The need by all agencies for ready access to up-to-date, high quality data has been fundamental to sound water resource management.”

Goal 3 – Response to Discussion Questions

Response: “Is there any water quantity and monitoring information reported to the ministry that should not be made publicly available? If so, why?” In the City’s experience, most information associated with water quantity and monitoring information can be obtained in a request through the Freedom of Information and Protection of Privacy Act. The only information that might be reasonably withheld is that information that is exempt from the Act. All other information should be disclosed unless the permittee could provide reasonable explanations for non-disclosure, consistent with the Act, describing why it shouldn’t be disclosed.

Response: “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?” In general an online resource for all water quantity information would be useful for the City but, as described above, the information would need to be curated in a manner that would allow application in technical studies. For example, groundwater level data is especially important in technical studies but the data would need to be provided in terms of water level elevations in comparison to mean sea level, as is the industry standard. To use groundwater level elevations, the data would need to be supported by a borehole log and well construction details in elevations. Without this type of supporting information, the data would be of limited use. If online information was fully supported with technical details as would be found in a hydrogeology report, then the online resource would be a valuable tool in water quantity management. MECP may consider supporting the online resource with posting of annual hydrogeological monitoring reports as are commonly required for some PTTW’s. Alternatively, as identified above, providing the information directly to municipalities under a specific

PTTW condition would be a more efficient mechanism for sharing the information with municipalities.

Response: “What data would you like to see included in the online resource?” In general, data to be included in an online resource would be consistent with the information MECP might require for a PTTW annual report. This would include the daily water taking, groundwater/surface water elevations, surface water flows, comparisons to past information (i.e. hydrographs), assessments of environmental impacts, reporting of well interference complaints, etc. In addition to information from individual permits, a compilation of information on an area-wide basis should consist of total annual water takings, changes from previous years, representative hydrographs for major aquifers, precipitation/recharge summaries, surface water flow summaries and water budget summaries.

Response: “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)?” As noted above, the City’s primary data use would be for technical studies and online resources don’t necessarily lend themselves well for these applications. Presentation formats including mapping and pictorial formats may be better suited for the general public. MECP should consider different presentation styles for different users and separate out information for the general public versus information to be used by Water Managers.

Response: “What water resources information and guidance would you like to see made available to the public?” Information for the public would need to consist of several different types such as educational materials, summary information and technical resources. Education materials may consist of simplified information on the water budget, descriptions of wells, groundwater takings, surface water and surface water takings, simple descriptions of the PTTW’s process, etc. As noted above, summary information could include water budget information on an area-wide basis (i.e., subwatershed, WHPA-Q, watershed) such as precipitation/recharge, total annual water takings, changes from previous years, representative hydrographs for major aquifers and precipitation/recharge, surface water flow and water budget summaries in comparison to previous years. Technical resources could include reports or links to other water quantity management sources such as conservation authorities, municipal source protection programs, municipality annual reports, water master plans, water management plans, etc.

Goal 4: Give host municipalities more input into water bottling decisions

Goal 4 – Summary Comments

We suggest municipal support be sought and factored into the MECP decision on the permit application. We suggest the support should be requested from all “host” municipalities where the bottled water facility is located in a WHPA-Q. However, we have concerns about how the municipality support, for or against would be factored

into the MECP decision. We also have concerns as to why this same approach would not be applied to all PTTW applications particularly in a WHPA-Q. In addition, the City suggests that this approach be applied for renewal applications as well.

Goal 4 – Detailed Comments

Comment: “Throughout the current moratorium, the ministry has heard from local municipalities that they would like to have a say as to whether a water bottling facility can be established within their area.” And “The “host municipality” would be considered the single-tier or lower-tier municipality where the proposed water taking is located.” The City strongly advocates that the host municipality designation should be expanded to include additional municipalities where the bottled water operation is contained within a WHPA-Q. For the City of Guelph, as an example, Nestle Waters Canada (soon to be Ice River Springs) in Aberfoyle, lies outside of the municipal boundaries of the City but the groundwater taking for the facility is a large contributor to the area designated in the WHPA-Q. The water taking expands the already stressed WHPA and adds other permits into the area therefore Guelph, with responsibilities under the CWA to protect water quantity, should have input into bottled water decisions in this particular case.

Comment: “The regulation would specify the grounds on which a host municipality could refuse to support a proposed water taking, for example, related to concerns about its anticipated impacts to:

- **aquatic ecosystems;**
- **water availability, including current or future municipal water supply needs; or**
- **water quality.**

If the host municipality supports the proposed water taking, the application should include the municipal resolution. If the host municipality does not support the proposed water taking, the host municipality would be required to indicate its reasons for not supporting the application.” The City has concerns about how this approach would be implemented. Under the Water Taking and Transfer Regulation impacts such as to aquatic system, the water availability and the water quality are to be considered in the PTTW application. Presumably, if there are technical concerns, these should be identified by the MECP. At this time the proposed approach appears to position some of the decision-making responsibility onto the municipality. For the municipality to raise concerns in the absence of similar concerns by the MECP would pit the municipality against the MECP. Similarly, if the MECP has concerns regarding the water taking application but the municipality is supportive, it would be assumed that the municipal support would be immaterial. It is unclear how these might be resolved and if the MECP disagrees with the interpretation of the municipality, what the outcome might be for the PTTW application. We note too that the bottled water

facilities application is only to note whether they have the support of the municipality and there are no details as to what the MECP might do with this information or how it might factor into its decision regarding the application.

Perhaps a bigger concern on this issue is the context for water takings for bottled water operations in the Province. With respect to bottled water facilities, the Province has concluded:

"The review found that water takings for water bottling in Ontario are being managed sustainably under the current framework. Groundwater resources in areas where water bottling is occurring were found to be sustainable under historical and current permitted volumes of water takings and climate conditions. The review indicates that the impacts of existing bottled water takings on groundwater and nearby surface water resources, and on the water supplies for municipalities and other existing water takers are negligible."

If this is the conclusion, the City would question why the Province is proposing special provisions for water takings for bottled water and/or why the same sorts of provisions are not provided for other perhaps more impactful water takings, such as quarry dewatering. This approach in seeking municipal support would be especially applicable in a stressed area such as a WHPA-Q. If the Province truly believes municipal resolutions for or against one type of water taking should be factored into the decision on a water taking application for a bottled water facility when the facility has little current impacts, then it stands to reason, , that municipalities should provide similar resolution for or against all non-municipal water taking applications.

Comment: "The requirement would also not apply to:

- **A facility that needs to renew an existing permit for the same or lower permitted volume, the same purpose and the same location of water taking"**

A renewal of an existing facility could extend the water taking and any environmental impacts for the renewal period which, potentially, could be for up to 10 years. With the MECP proposing to set priorities on uses with municipal use a higher priority than bottled water facilities and to consider cumulative effects of water takings in stressed areas, renewal of an existing permit could have the same potential impacts to a municipality as a new permit. The MECP should consider the "water availability, including current or future municipal water supply needs" and allow the municipality to provide support for or against the renewal application. If the municipality believes it needs the water over the bottled water facility, the municipality's needs should be factored into the MECP decision on the renewal application. The MECP should reconsider this exemption to align with the goals of the proposal.

Goal 4 – Response to Discussion Questions

Response: “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?” The City’s response is described above. Municipal support should be sought and factored into the MECP decision on the permit application. The support should be requested from all “host” municipalities where the bottled water facility is located in a WHPA-Q. However, we have concerns about how the municipality support, for or against would be factored into the MECP decision. As stated above, the City would advocate for this same approach for all PTTW applications particularly in a WHPA-Q and would respectfully suggest that this approach be applied for renewal applications as well.

All of which is respectfully submitted:

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