



**SUBMISSION IN RESPONSE TO EBR REGISTRY NUMBER 012-  
9151**

**BOTTLED WATER TECHNICAL GUIDANCE DOCUMENT**

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## About

The Canadian Bottled Water Association (CBWA) was founded in 1992 to represent the Canadian bottled water industry and to ensure a high standard of quality for bottled water. CBWA is the trade association for the bottled water industry in Canada. Our Members produce and distribute about 85 per cent of the bottled water sold in Canada. The CBWA is the Canadian chapter of the International Council of Bottled Water Associations.

The CBWA supports and promotes bottled water as a healthy, safe and convenient food product. Bottled water competes with other packaged beverages, not with tap water, offering consumers a zero sugar, zero calorie and zero alcohol portable alternative hydration source. Bottled water is also extremely efficient, with very little water taken that is not included in the product. Unlike many other commercial uses of water, taken by a variety of industries, bottled water is produced for human consumption.

The CBWA is proud of the industry's success in Ontario, its history of responsible water management, and of its environmental track record. CBWA members are active participants in the province's Permit to Take Water Program (PTTW), and welcome any, and all opportunities to contribute to a sustainable source of fresh water for all Ontarians.

## Introduction

The CBWA supports an evidence-based review of the Permit to Take Water Program (PTTW), and has been involved in the consultation process for the PTTW program in good faith to date. The CBWA and its members are concerned that the government has moved quickly on announcing the new \$500 per million litres water bottling charge, which represents a 13,500 percent increase from the existing fee in place since 2009, and at a time when the consultation period for EBR Registry Number 012-9151 (this posting) on the proposed technical guidance document has yet to end. It is unclear how input from stakeholders will be factored into permitting decisions. The CBWA supports a science based and transparent decision making process for managing ground water resources.

This submission presents the insights of the industry on each of the points made within the regulatory proposal. It also presents facts and arguments that support the industry's position that:

- 1) The bottled water industry accounts for a mere 0.2% of all the permitted water taking in Ontario. Of those permits, bottled water companies take on average, only 50% of the water they are permitted to take, according to MOECC staff. If the government is serious about water conservation, it must review takings and permitting for all water takers, beginning with commercial takings;**

- 2) The bottled water industry is not a present or future threat to Ontario's ground water supply. In fact, in 2016, reported as the hottest year on record, not one CBWA member company has reported being ordered to stop or reduce their water takings by the MOECC. MOECC permits already include restrictions and reductions based on local circumstances that bottled water companies comply with. To add, most bottled water produced in Ontario is distributed in Ontario with a small amount going to other Canadian provinces and none leaves the country. According to the International Joint Commission, the Great Lakes Basin is a net importer of bottled water;**
  
- 3) The existing permit conditions for bottled water are based on scientific best practices, and the technical understanding and input of regulatory staff and professionally licensed hydrogeologists. Ontario's MOECC is already regarded as having one of the leading water management regimes in North America. Suggestions that the MOECC is not already doing enough to regulate and manage the province's water is without foundation;**
  
- 4) From a technical perspective, the CBWA does not support: i) the use of mandated water use restrictions for only bottled water takings, ii) attempts to limit the gathering of information such as the use of pumping tests through onerous consultation requirements, iii) non-science based permit limits, and iv) targeted requirements for updating Source Water Protection plans. These requirements are not supported by groundwater science or based on the existing monitoring results from current bottled water operations: and,**
  
- 5) While the CBWA acknowledges, and respects the rights of First Nations and Métis peoples within Ontario, and the constitutional requirement to consult, that duty is the government's duty and if proponents are required to assist in implementation, then more guidance should be provided as to specific requirements.**

The industry continues to meet with government and looks forward to continuing the discussion following the submission of this document. As mentioned previously, we are concerned about how input from industry will be factored into permitting decisions. The CBWA hopes to work with the Ministry in the coming months and years to refine the PTTW program in a way that enhances water conservation in the province through an evidence-based review of the program. To this end, we have included comments in this submission from the scientific and legal perspectives as they pertain to the new procedural and technical requirements. The CBWA hopes that by working together with government during this moratorium, a solution grounded in science that satisfies all parties can be realized.

## Summary of Industry Impact on Ontario's Groundwater

The bottled water industry represents just 0.2% of all permitted groundwater takings in the Province. The relative proportion of bottled water withdrawals compared to all documented groundwater takings is small. In fact, the bottled water industry is one of the smallest groundwater users. Please see Table 1 below (MOECC, 2016) from our last submission for your reference.

**Table 1.** Summary of MOECC Permitted Groundwater Takings (November 20, 2016)

	Bottled Water	Municipal Supply	Golf Courses	Pits, Mines, Quarries	Agriculture	All Other Groundwater Takings	Total GW takings – Excluding Construction Dewatering*
<b>Total Permitted Daily Volume (L)</b>	13,455,102	2,214,948,903	275,526,021	1,123,230,618	2,278,310,823	1,137,737,617	<b>7,043,209,085</b>
<b>Number of Takings</b>	31	287	978	132	1434	1286	<b>4148</b>
<b>Number of times greater than bottled water</b>	-	165x Greater	20x Greater	83x Greater	169x Greater	85x Greater	-
<b>% of Total Groundwater Takings Excluding Construction</b>	0.2%	31.4%	3.9%	15.9%	32.3%	16.2%	-
<b>Estimated Consumptive Use % <sup>1</sup></b>	97%	15%	80%	5-30%	80%	-	-

\* Temporary Construction groundwater dewatering is equal to 16,070,075,388 L/day

As mentioned in our previous EBR submission, the current PTTW process takes into account, cumulative impacts of multiple groundwater withdrawals by requiring proponents to demonstrate a lack of adverse impacts to existing water users, even under drought scenarios, and to prove that the water taking does not adversely impact the natural environment.

The PTTW legislation also currently allows the Director to reduce or entirely eliminate water takings based on Source Water Protection studies or any other relevant information related to groundwater sustainability. No CBWA members surveyed were instructed to reduce or stop water takings in 2016, one of the hottest years on record.

<sup>1</sup> Gartner Lee, 2002 Best practices for assessing water taking proposals - Final Report

While our industry is permitted to take approximately 13 million litres of groundwater per day, the vast majority of our members do not take the maximum permitted amount. According to MOECC staff, the industry averages taking approximately 50% of the amount they are permitted. The current moratorium, the proposed stringent rules around procedural and technical requirements, as well as the proposed new water bottling charge singles out the bottled water industry – the smallest commercial groundwater user (see Table 1).

The CBWA is concerned that the government’s motivations for improving water conservation in Ontario is not informed by science, or by evidence that the bottled water industry has a significant impact on Ontario’s groundwater resource. The government’s approach to date runs counter to the collaborative approach needed to protect and conserve water for future generations. Any new technical or procedural requirements and additional pricing mechanisms introduced by the Province should be applied to all PTTW holders based on a science-based review of their impact on Ontario’s groundwater resource.

## Proposed New Technical Requirements

The Procedural and Technical Guidance Document for Bottled Water: Permit to Take Water Applications and Hydrogeological Study Requirements (MOECC, Nov. 2016) outlines new measures proposed for preparing and evaluating PTTW applications. Most of the proposed technical requirements are consistent with the level of study and regulatory review that is already required to obtain a PTTW, and are standard hydrogeological practice for obtaining longer-term water taking permits. These requirements are largely outlined in the existing PTTW guidance document (2008). Technical pre-submission engagement with MOECC, for example, is a frequently utilized and an effective permitting strategy, and should be a requirement of all groundwater permitting. Those bottled water proponents that have not been required to undertake the level of technical study or monitoring as outlined in the proposed Guidance Document, have received permits on the basis that MOECC technical staff has identified those water takings as low-risk. Low-risk water takings include those with deep well systems where withdrawals are a small percentage of available aquifer storage, water takings in low-use watersheds with limited existing water users, or water takings where the impacts to the environment, including surface water systems, has been demonstrated to be sustainable or water takings impacts too small to be measurable. The required incorporation of Source Water Protection results and water budget analysis are prudent and supported by the CBWA. Water budget analysis for new water takings is an important scientific tool for evaluating groundwater sustainability. Existing bottled water takings within Source Water Protection areas have already been evaluated as part of the water budget analysis, and to CBWA's knowledge, have not been shown to represent a threat to groundwater.

The primary technical concerns related to the proposed requirements on bottled water permits are related to the mandatory reductions in water taking associated with the Ontario Low Water Response program, full consultation for conducting Pumping Tests, onerous reporting and posting of information, unclear requirements for the incorporation of the effects of climate change and drought, and references to the use of existing Source Water Protection data and models, which are currently not publicly available and/or are proprietary. Further, the Ministry should clarify rules about the consultation process, how comments received through the proposed consultation process will be evaluated in the context of making decisions based on the best science available

### Water Taking Records and Reporting

*Part B, Section 5* of the Guidance Document outlines reporting requirements that apply to all bottled water permits. These requirements, including weekly posting of data to a proponent's web site, do not take into account relative risk of each water taking, and are onerous for small, low-risk groundwater withdrawals that have been demonstrated to be sustainable through study

and through long-term operation. The requirements remove the MOECC technical staffs' scientific judgment with respect to managing and reporting monitoring data. Further, the daily water takings may be considered as proprietary business information, as these rates change with market conditions and business strategy. The industry understands that daily water takings are required for permitting, and should be included in annual reports and provided to MOECC at any time upon request.

The CBWA also supports transparency in providing additional monitoring data to the public. From a groundwater management perspective, however, it is unclear how such frequent reporting will be utilized by MOECC staff or Source Water Protection agencies to better manage groundwater resources, particularly when other groundwater users are not providing these data.

### Climate Change and Drought

*Part C, Section 5* of the Guidance Document notes that climate change and drought conditions must be considered in the hydrogeological assessment for a PTTW. From a hydrogeological perspective, it is important to assess any water taking in the context of normal seasonal and climate related fluctuations in precipitation and subsequent changes in groundwater levels during dry year(s)/drought. The CBWA requests that the Ministry provides additional details to support how such an assessment would be completed and evaluated.

### Mandatory Low Water Response Reductions

*Part B section 2 (Standard Conditions) and Part C, Section 5* reference the requirement for mandatory reductions in water taking based on the Low Water Response Level and the average daily water taking over the previous 3 months. The CBWA supports the current program, which calls for voluntary restrictions for Low Water Response Level 1 and 2, and mandatory restrictions for Level 3. It should be noted that the Low Water Response program is an unsophisticated, largely non-scientific approach to understanding the potential for changes in water availability based on precipitation values. This program was implemented before the Source Water Protection studies, largely in response to a lack of available groundwater information and understanding. The PTTW process and Source Water Protection programs represent a significant scientific improvement in understanding the potential effects of seasonal changes in water availability. Further, the methods used to determine the Low Water Level Threats are based on seasonal precipitation, however only shallow aquifers connected to the water table or surface water systems respond to these short-term changes in water availability. Groundwater levels in deeper confined aquifers are determined by annual or in most cases, multi-year precipitation values. Overall, the CBWA supports the requirement for the development of contingency plans with trigger levels, to respond to drought conditions or impacts to the environment. These plans should be based on sound groundwater science, developed in consultation with MOECC technical



staff and stakeholders such as Conservation Authorities. The requirement for these contingency plans makes the mandatory Level 1 and Level 2 restrictions redundant.

If the objective is to be conservative in the protection of water resources, the mandatory water use restrictions should be applied to the other 99.8% of groundwater users in Ontario. As previously discussed, the mandatory restrictions are also redundant given that the proposed requirements already take into account the potential effects of climate change and drought as part of permitting, and the MOECC has broad powers to reduce or eliminate all permitted water takings in response to drought events. The mandatory restrictions are also proposed to be based on the average daily water taking and not the maximum permitted volumes. The average daily water taking volumes fluctuate based on market specific/business decisions. The maximum permitted water taking is approved based on already demonstrating sufficient yield, even during dry periods. Any reduction in water taking volumes (mandatory or voluntary) should be based on reductions in the permitted rate. It is not clear what the scientific rationale is for a reduction to average water taking volumes.

### Cumulative Effects Assessment

*Part C, Section 5* of the Guidance Document outlines steps required to undertake a cumulative effects assessment. The CBWA supports proponents demonstrating that new or expanded water takings will not contribute to an adverse cumulative impact to groundwater or surface water resources. Source Water Protection data that is publicly available should be consulted for all water takings, and hydrogeological analysis should utilize published Source Water Protection results. As noted in the Guidance Document, existing takings are likely already considered within the Source Water Protection studies. The concern is the relatively ambiguous references to the use of existing Source Water Protection models. This information is currently not available to proponents and in many cases, is proprietary. It should be clear that bottled water proponents are not required to utilize these existing models, and can use appropriate water budget analysis in the context of site and watershed conditions, combined with publicly available Source Water Protection data. It is worth noting that most of these broad water budget models were developed on a watershed scale are not sufficiently detailed, or accurate enough to make site or even sub-watershed scale decisions with respect to sustainability. These models provide planning level details, and cannot for example, accurately predict surface water and groundwater interactions for a specific water feature. If the government were going to mandate the use of these models and supporting data, we would strongly encourage them to be made publicly available in a format that can be practically utilized by professionals.

## Consultation Requirements

*Part B, Section 1* outlines the consultation.

The CBWA respects the need to engage with stakeholders as part of the permitting process. The issue is that the Ministry has not provided sufficient guidance on the process, or how comments received from interested parties will interplay with the need for MOECC professional staff to make science based decisions.

The Ministry stated in the proposed Guidance Document that it recognizes the value of involvement by the public, and local agencies, however they do not appear to have consulted with the large, and regulated community of Professional Geoscientists and Hydrogeologists in Ontario as part of developing the new process for permitting bottled water. The governing body for Geoscientists in Ontario (APGO) has similar concerns to that of the CBWA regarding science based decision making. For example, the APGO stated in their previous submission to the EBR, “that while the creation of new public policy over groundwater must consider public opinion, decisions should be evidence-based and informed by the application of available science.”

The CBWA understands the importance of consulting with interested parties, and in particular the importance of the constitutional Duty to Consult with First Nation and Métis communities. It is the position of the CBWA that it would benefit both the proponent and all interested parties to set out the parameters of such a consultation. As has been done in other jurisdictions, the Ministry should produce guidelines setting out proponents’ procedural Duty to Consult obligations. This would provide certainty of process for proponents and ensure they are able to properly comply with their Duty to Consult responsibilities. The CBWA would be agreeable to working with the Ministry to establish such guidelines. Further, the CBWA is of the view that the Duty to Consult should be limited for permit renewals. Generally, a permit renewal will have no new impacts, and as a result no Aboriginal or treaty rights are likely to be adversely affected such that consultation would be required.

## Consultation Requirements-Pumping Tests

*Part B, Section 1* notes that the consultation process also applies for simply conducting scientific testing/pumping tests. The requirement for undertaking lengthy consultation prior to conducting a pumping test may undermine the application of sound groundwater science. Pumping tests are the best scientific tools used for understanding water availability, and provide the most valuable source of data for assessing water taking permits. Discouraging the use of these tools by requiring lengthy consultation will only serve to reduce the scientific information available for stakeholders and for MOECC staff to evaluate water taking as part of the overall permitting process.

## Duration of Permits

Given the proposed changes being considered by the Ministry, the CBWA takes the position that permits should be issued for longer terms. The Ministry has proposed adding significant new substantive procedural and consultation processes to permit applications. As a result, fairness to applicants, efficiency to the system, and certainty to the stakeholders, dictate that permits be extended.

As well, the assumed objective of limiting permit duration to five years would be to ensure that any longer term impacts to availability of recharge brought on by climate change could be evaluated by the proponent's consultant and by regulatory staff. It is therefore redundant to limit permit durations while asking the proponent to consider changes in climate that occur over durations that exceed permit lengths. Longer permits for bottled water would be scientifically supported if the potential effects of climate change are clearly considered within the PTTW process.

## Summary of Findings

The bottled water industry has been, and continues to be a leader in the protection and management of groundwater resources. The CBWA considers the technical requirements outlined in the proposed guidance documents, with the exception of those issues discussed above, as prudent and based on existing scientific guidance and MOECC technical staff requirements for longer-term water takings. From a technical perspective, the CBWA does not support: i) the use of mandated water use restrictions for only bottled water takings, ii) attempts to limit the use of pumping tests through onerous consultation iii) non-science based permit limits, and iv) targeted requirements for updating Source Water Protection plans, particularly when this data is not readily available to the public.

The CBWA believes that decisions with respect to managing groundwater resources should be based on the scientific best practices, and the technical understanding and input of regulatory staff and professionally licensed Hydrogeologists. It is also not clear based on the information provided by the Ministry, how input from stakeholders will be factored into permitting decisions. As recently published by a member of the Association of Professional Geoscientists of Ontario (APGO) Environment Committee (APGO Field Notes, January 19, 2017), "efforts to use groundwater governance as a convenient tool to rein in an unpopular activity at one location may have unintended consequences to other parts of the Ontario economy"