Canadian Environmental Law Association
EQUITY. JUSTICE. HEALTH.

January 12, 2017 **BY EMAIL & REGULAR MAIL**

The Hon. Glen Murray
Minister of the Environment & Climate Change
Ferguson Block
77 Wellesley Street West, 11th Floor
Toronto, Ontario
M7A 2T5

Dear Minister:

RE: ENHANCING PROTECTION OF DRINKING WATER QUALITY IN ONTARIO

We are writing to request that your Ministry immediately undertake further reforms which are necessary to protect safeguard drinking water quality and to protect public health and safety throughout Ontario.

In particular, CELA submits that the following steps should be undertaken forthwith by the provincial government:

1. The next round of source protection planning under the *Clean Water Act* ("CWA") must be expanded to include non-municipal drinking water systems which have been virtually excluded from the Source Protection Plans approved under the CWA.

2. The tritium drinking water quality standard in O.Reg. 169/03 under the *Safe Drinking Water Act* ("SDWA") should be lowered to 20 becquerels per litre.

The rationale for each of these recommendations is briefly set out below.

PART I – BACKGROUND

Both the CWA and SDWA were enacted in response to the Walkerton drinking water tragedy in 2000 in which seven persons died, and thousands of people fell ill, after bacteriological contamination of a well that supplied the town's drinking water system.

After identifying the factual, technical and institutional factors which converged to create the public health catastrophe, Mr. Justice O'Connor's *Report of the Walkerton Inquiry (Part 2)* made numerous recommendations aimed at preventing a recurrence of the Walkerton tragedy elsewhere in Ontario. Among other things, these recommendations called upon the provincial government to:

- establish a regime for developing watershed-based source protection plans "in all watersheds in Ontario" (Recommendation 1);

- set legally binding drinking water quality standards which ensure that "a reasonable and informed person would feel safe drinking the water" (Recommendations 18 and 24), and which are "based on a precautionary approach" (Recommendation 19);

- ensure that "programs relating to the safety of drinking water are adequately funded" (Recommendation 78); and

- invite Ontario First Nations to join in the watershed planning process (Recommendation 88).

To date, the Ontario government has proceeded with various measures, programs and initiatives intended to fulfill the important changes recommended by Mr. Justice O'Connor.

However, it must be noted that the SDWA is now almost 15 years old, and the CWA is now over 10 years old. Moreover, the first round of the lengthy source protection planning process under the CWA has finally been completed within designated Source Protection Areas and Regions across Ontario. At the present time, the policies contained in the Ministry-approved Source Protection Plans are being gradually implemented by relevant authorities, approximately 17 years after the Walkerton tragedy occurred.

Despite this commendable (but slow-paced) progress, CELA concludes that there is a clear need to extend and strengthen certain aspects of the current provincial regime in order to secure the long-term protection and sustainability of drinking water sources for all Ontarians, not just those served by municipal residential drinking water systems. In Part II of this brief, CELA identifies two key issues which must be addressed forthwith by the Ontario government.

PART II – OVERVIEW OF KEY ISSUES

In the post-Walkerton era, CELA has monitored and responded to the development of the SDWA, the CWA, regulations thereunder, and related drinking water quality programs in Ontario. Accordingly, it is our view that the drinking water sources for many Ontarians are now better protected by the province's adoption of the "multiple-barrier" approach, as recommended by Mr. Justice O'Connor in the *Report of the Walkerton Inquiry (Part 2)*.

It is well-recognized that there are several reasons for implementing source protection as the first (and arguably most important) barrier in the multi-barrier approach:

- keeping contaminants out of source water is the safest and most prudent approach;

- for certain contaminants, treatment options may be unavailable, ineffective or unreliable;

- it is far less expensive to keep contaminants out of source water rather than attempting to remediate or treat degraded raw water supplies; and

- it may not be feasible to locate or establish a new water supply if existing source water quality becomes contaminated.[1]

Accordingly, during the development of the CWA, Ontario's Implementation Committee and Technical Experts Committee advised the provincial government that "diverse communities, including those on municipal and private supplies, as well as First Nations, should be protected by the approach to source water protection."[2]

Despite the benefits of source water protection, CELA concludes that there are two significant and unresolved issues at the present time which require further action by the Ontario government: (i) extending the coverage of CWA to include non-municipal drinking water systems; and (ii) making the tritium drinking water standard under the SDWA more stringent and protective.

CELA hastens to add that these two issues do not represent the full inventory of all drinking water quality concerns which should be acted upon by the province, particularly in light of the increasing risks posed by climate change impacts. Nevertheless, CELA views these two issues as high-priority matters for further provincial action in order to protect drinking water quality in Ontario.

As discussed below, the CWA enables the inclusion of groups of private wells (such as those within hamlets, villages and small towns across Ontario), but so far such provisions have not been implemented. Accordingly, the residents of myriad numbers of communities across the province are not being protected by this legislation.

In relation to the exclusion of private wells under the CWA, the 2014 report of the provincial Auditor General found that:

> Private wells or intakes that serve one residence are currently excluded from source protection planning. An estimated 1.6 million people in Ontario rely on private wells for their drinking water supply. For them, protecting source water is the only line of defence. In 2013, over a third of the water samples from private wells tested positive for bacteria including E. coli. If private wells were held to the same safety standard used for public drinking water systems, water from these wells that tested positive for bacteria would be considered unsafe to drink.[3]

This 2014 report also highlighted the importance of source protection in the context of private wells:

> Many people in Ontario, especially in rural areas, are not connected to municipal drinking water systems and use wells to draw their drinking water directly from underground aquifers. For these people, protecting source water is the only barrier of protection against contaminated drinking water.[4]

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[1] See J. Abouchar and T. McClenaghan, *Ontario Water Law (Vol. 1)* (Toronto: Canada Law Book, 2014), pages P1-14 to P1-15.
[2] *Ibid*, pages P1-16 to P1-17.
[3] 2014 Report of the Auditor General of Ontario, page 411.
[4] *Ibid*, page 413.

Accordingly, the Auditor General made the following recommendation:

> To strengthen source water protection, the Ministry of the Environment and Climate Change should consider the feasibility of requiring source protection plans to identify and address threats to sources of water that supply private wells and intakes…[5]

Two years later, however, the 2016 report from the Auditor General confirmed that this important recommendation has not been acted upon by the Ontario government.[6]

Instead of addressing the Auditor General's recommendation, it appears that your Ministry has opted to merely clarify and revise certain aspects of the CWA planning process, including potential changes to the regulations and/or technical rules.[7] To be clear, CELA supports the need for continuous improvement in the implementation of Ontario's drinking water regime. Nevertheless, CELA submits that tinkering with the CWA technical framework largely amounts to ramping up the level of source protection for persons who are already well-protected under the CWA because they are served by municipal residential drinking water systems.

For example, the most recent report of the Chief Drinking Water Inspector found that 99.8 % of the 527,172 water testing results from municipal residential drinking water systems met Ontario's "strict" drinking water quality standards.[8] In CELA's view, this is welcome news for customers of municipal drinking water systems.

On this basis of these favourable test results, your Ministry often proclaims that Ontario's "multi-barrier approach to protecting drinking water has made our tap water among the best protected in the world."[9] Similarly, your most recent Annual Report on Drinking Water states that "from source to tap, clean and safe drinking water for all Ontarians is a top priority for our government," and that "Ontario's drinking water continues to be among the best protected in the world."[10]

While this latter claim may be valid for most Ontarians, it is not necessarily true for First Nation communities in the province, or for residents who consume water from private wells rather than municipal residential drinking water systems. In our view, if the provincial government wants to ensure and enhance drinking water safety for all residents of Ontario, then an expansion of the CWA regime is both necessary and desirable in the public interest, as described below.

ISSUE #1: Expanded Application of the CWA to Non-Municipal and First Nations Systems

The stated purpose of the CWA is "to protect existing and future sources of drinking water" (section 1). No distinction is made in this section between public and private drinking water safety.

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[5] *Ibid*, Recommendation 5, page 425.
[6] 2016 Report of the Auditor General of Ontario, Volume 2, pages 162-63.
[7] See EBR Registry Notice 012-8507 (September 21, 2016).
[8] Chief Drinking Water Inspector Annual Report 2015-2016.
[9] 2014 Report of the Auditor General of Ontario, page 412.
[10] Minister's Annual Report on Drinking Water 2016.

Moreover, the CWA contains express provisions to enable the inclusion of non-municipal systems and First Nations drinking water systems within the ambit of the Act.[11]

However, during the first cycle of assessment and planning work under the CWA, your Ministry took a number of steps to restrict source water protection efforts to raw water sources used by municipal intakes and wellheads, rather than by private wells or other non-municipal systems.

Given the novel nature of the CWA framework when first enacted, CELA appreciates that the Ontario government may have wanted to initially focus the first round of source protection planning on municipal residential drinking water systems that serve millions of Ontario residents. In fact, this is what was communicated by your predecessor, Minister Gerretsen, along with an expectation that non-municipal systems would be included in the second round of source protection planning.

Now that the first round has been completed, CELA submits that the Ontario government should draw some "lessons learned" in the source water protection program to date, and apply them during the next round of source protection planning, when it will be incumbent upon the province to expand the CWA regime to include various types of non-municipal drinking water systems.

(i) Non-Municipal Systems under the CWA

During the initial round of source protection planning under the CWA, it was open to municipalities to "elevate" eligible clusters of private wells (e.g. six or more wells), or wells within an area of settlement (as defined under the *Planning Act*), for inclusion within Source Protection Plans.[12] However, Ministry officials issued an early directive that effectively discouraged municipalities from elevating such private systems at the time. In particular, the former Director of the Source Protection Programs Branch acknowledged municipal interest in including non-municipal drinking water sources under the CWA regime, but he advised that such elevation requests should be "deferred."[13]

Accordingly, to our knowledge, private well clusters in rural settlement areas have been virtually excluded from the mandatory policies contained in approved Source Protection Plans. This exclusion continues to exist to date, despite well-documented evidence indicating that private wells – like municipal wells – are vulnerable to chemical or pathogenic contamination. This continuing exclusion under the CWA affects not only numerous hamlets and villages, but also larger communities or towns that lack communal systems and are therefore 100% reliant upon drinking water drawn from domestic wells.

This is the case all across the province, including southwestern Ontario, central Ontario, eastern Ontario and northern Ontario. For example in the County of Brant, the communities of Burford, Oakland, Scotland,[14] and many others, are entirely reliant on domestic wells. Most wells would be within the same or connected aquifers and thus susceptible to a common contaminating event such

[11] See, for example, CWA, subsections 8(3), 10(7), 15(2)(e) and 109(6).
[12] See also O.Reg. 287/07, section 4.1.
[13] Letter from Ian Smith to Source Protection Chairs dated January 18, 2008, page 1.
[14] These three communities consist of thousands of residents.

as occurred at Walkerton. They are vulnerable to surrounding land uses, municipally and provincially regulated activities, spills and accidents, agricultural uses, and industrial uses, just as municipal wells were vulnerable before the passage of the CWA.

Accordingly, the numerous Ontarians who depend upon non-municipal systems for drinking water purposes generally lack the legal protection conferred under the CWA (although private well owners fortunate enough to be located within municipal Wellhead Protection Areas may derive some indirect protection under approved Source Protection Plans). Regarding well regulation in general, we note that the Ministry is still working on long-overdue regulatory and non-regulatory improvements to the current wells regime under Ontario Regulation 903 in response to CELA's 2014 Application for Review of this regulation.

However, even if satisfactory changes are developed and implemented by the Ministry, it cannot be seriously contended that Regulation 903 is substantially equivalent to the CWA source protection planning process. In short, Regulation 903 is primarily helpful at the point of installation of wells (and in the eventual abandonment of wells), but it is not at all directed at the topic of protecting the communal sources of water from which the wells draw.

Similarly, CELA notes that certain non-municipal "designated facilities" (e.g. children's camps, health care facilities, private schools, social care facilities, etc.) which use private wells for drinking water purposes may be subject to treatment, sampling or reporting requirements under the SDWA (see O.Reg. 170/03 and O.Reg. 243/07). However, these operational requirements represent only one component of the overall multi-barrier approach, and there is still a residual need to develop appropriate source protection measures for non-municipal systems pursuant to the CWA. Indeed, one of the primary lessons learned from Walkerton was the need for a comprehensive multi-barrier approach to drinking water protection.

It is our understanding that some Ministry staff may be of the view that CWA coverage of non-municipal drinking water systems is unnecessary because municipalities have sufficient tools under the *Planning Act* to regulate land uses that may adversely affect groundwater resources. However, at the time that the CWA was being developed, there was a thorough analysis of the ability of existing tools under both the *Planning Act* and *Municipal Act* to be utilized for mandatory source water protection. This analytical exercise revealed significant gaps in the availability and efficacy of these tools, especially in relation to existing activities and uses. The *Planning Act* may be useful for addressing proposed *changes* to land use, but of limited value when current land uses pose threats to source water protection.[15]

Furthermore, it is only through the application of the CWA that its conflict resolution provisions and other mechanisms are available to ensure that municipal action will be both binding, and upheld by other decision-makers including the Ontario Municipal Board ("OMB") and government. In addition, it is clear to CELA that municipalities have taken action to implement existing Source Protection Plans because they were not only empowered to do so, but expressly required to do so under the CWA. In our opinion, protecting numerous Ontarians from unsafe

[15] J. Abouchar and T. McClenaghan, *Ontario Water Law (Vol. 1)* (Toronto: Canada Law Book, 2014), page P1-4.

private drinking water sources is just as important as protecting those Ontarians who are served by municipal drinking water systems.

In CELA's view, the practical reality is that some municipalities do not use their planning powers effectively or at all to accomplish this important societal objective. Indeed, CELA continues to be involved on behalf of our clients in a number of land use planning disputes where municipal authorities have failed or refused to exercise their *Planning Act* authority in a timely and reasonable manner to safeguard local aquifers used by residents for drinking water purposes.

Moreover, even if municipal councils attempt to enact protective official plan policies and zoning by-laws, these are always subject to proponents' applications for site-specific amendments and/or appeals to the OMB, which is empowered to quash or vary municipal decision-making. In our experience, the result is an uneven, uncertain and inconsistent patchwork of municipal planning instruments across the province, despite the provincial direction provided in the water-related policies of the Provincial Policy Statement issued under the *Planning Act*. More alarmingly, the Ontario government is currently considering whether to provide municipalities with even more latitude to make local planning decisions with reduced OMB oversight.[16]

In our view, protection of the public right to drinking water safety should not be *ad hoc* in nature, nor depend on the particular municipality in which Ontarians happen to reside. Instead, the mandatory tools that can now be used province-wide under Part IV of the CWA to safeguard municipal wellheads against significant drinking water threats should become applicable to private wells at the earliest possible opportunity. Among other things, protecting private wells through Source Protection Plans would legally oblige municipalities to amend their official plans and zoning by-laws to bring them into conformity with significant threat policies.[17] Similarly, public authorities would be prohibited from issuing or amending prescribed instruments (e.g. environmental compliance approvals, aggregate licences, permits to take water, nutrient management plans/strategies, etc.) unless they conform with significant threat policies pertaining to private wells.[18]

The bottom line is that if the *Planning Act* and the *Municipal Act* truly serve as a complete answer to source protection concerns, then the CWA would not have been enacted in the first place since municipalities like Walkerton were already empowered to protect groundwater through planning and zoning decisions. However, by enacting the CWA and creating new tools to protect source water, the Ontario Legislature clearly recognized the limits of solely relying upon municipal discretion under the *Planning Act* and the *Municipal Act.* Given the serious health risks posed by domestic wells drawing water from contaminated aquifers, CELA submits that it is incumbent upon the provincial government to extend CWA coverage to non-municipal drinking water systems as soon as possible.

CELA concludes that including non-municipal drinking water systems under the CWA, as envisaged when the Act was passed, would: (a) provide important tools to assess the threats to

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[16] Ministry of Municipal Affairs and Ministry of the Attorney General, *Review of the Ontario Municipal Board: Public Consultation Document* (October 2016).
[17] CWA, sections 38 to 42.
[18] CWA, sections 43 to 44.

sources of drinking water for hundreds of thousands of Ontarians; (b) facilitate ranking of such threats using the same criteria as for municipal wells; and (c) make available the measures that would reduce or eliminate those threats just as with municipal wells. In CELA's view, the ongoing provincial failure to properly provide for source water protection for non-municipal drinking water systems is unconscionable and a source of significant continuing risk which could conceivably be just as serious as the Walkerton tragedy.

(ii) First Nations Systems under the CWA

It is beyond dispute that numerous indigenous communities throughout the province are plagued by drinking water quality issues and attendant public health risks. For example, a recent survey of five Ontario-based First Nations (located in northern, central and southern Ontario) found various contaminants, such as coliform, *E. coli*, trihalomethanes and other substances, in the communities' drinking water.[19]

This 2016 report also highlighted the need for better protection of the groundwater and surface water sources being used by First Nations drinking water systems, particularly where these sources are being impacted by off-reserve activities under provincial or municipal jurisdiction:

> The quality of source water has a direct impact on drinking water. While water treatment is designed to make source water safe to drink, heavily contaminated source water can make water treatment more difficult and expensive. Ontario has more First Nations water systems that rely on surface water and "groundwater under the direct influence of surface water" (GUDI) than any other province - meaning water quality is directly related to watershed and source water conditions.
>
> For the most part, source water protection falls under provincial law in Canada, because the watershed extends outside the reserve. This makes it legally and logistically difficult for First Nations to engage on the issue. In practice, First Nations cannot effectively carry out their culturally-understood obligation to protect water - either on or off reserve... In many cases, the lakes, rivers, and streams that contribute to the source water for these communities have deteriorated because of pollutants from industries, and growing municipalities.[20]

Aside from the on-reserve drinking water systems, the report further notes that private wells in First Nations communities are also at risk:

> Households dependent on private wells or wastewater systems on reserves are in an even more precarious situation than those served by public water systems. There is no dedicated government funding to upgrade, operate, maintain, or monitor these systems. Nearly one in five households on reserves in Ontario use these private wells... For the most part, First Nations and these individual households are left to fend for themselves.[21]

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[19] Human Rights Watch, *Make It Safe: Canada's Obligation to End the First Nations Water Crisis* (2016), page 9.
[20] *Ibid*, page 17.
[21] *Ibid.*

Similarly, your most recent Annual Report on Drinking Water acknowledges that many First Nations in Ontario are continuing to experience serious and ongoing drinking water problems:

> In Ontario, as of September 2016, there were 44 Indigenous and Northern Affairs Canada-funded drinking water systems in 24 First Nations communities with long-term boil water advisories. Some of the longest-standing drinking water advisories in Canada are found in First Nation communities in Ontario.[22]

This Annual Report goes to state that "improving First Nation communities' access to safe drinking water continues to be a priority for Ontario."[23] Among other things, the Annual Report refers to the provision of "in-kind technical assistance" to First Nation representatives on various topics, including source protection and watershed planning. While this initiative should be continued by the provincial government, CELA submits that there is room for considerable improvement and expedited action in assisting First Nations in Ontario to develop and implement source protection plans in a timely and effective manner.

On this point, we note it was possible under the CWA for First Nations' drinking water systems to be "elevated" by band council resolution for inclusion with Source Protection Plans. However, it is our understanding that only three such systems in Ontario have been specifically included to date.[24]

While First Nations representatives have served as members of some Source Protection Committees, it appears that the vast majority of First Nations drinking water systems in Ontario remain outside of the CWA coverage. In our view, such omissions are unfortunate, particularly in light of Mr. Justice O'Connor's finding that "the water provided to many Metis and non-status Indian communities and to First Nation reserves is some of the poorest quality water in the province."[25]

In these circumstances, the Ontario government should enhance its efforts to engage with and assist indigenous communities across the province, in accordance with Recommendation 88 of the Walkerton Inquiry. Among other things, this means that where requested, Ontario should be prepared to provide adequate technical and financial assistance to indigenous communities that wish to develop, utilize, or "opt-in" to the various source water protection tools available under the CWA.

The above-noted 2016 report on First Nations drinking water quality sets out a number of similar recommendations aimed at the Ontario government, particularly in relation to source protection planning:

- work with federal departments and First Nations to support source water protection planning for waters affecting First Nations reserves, treaty lands, and traditional territories.

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[22] Minister's Annual Report on Drinking Water 2016.
[23] *Ibid.*
[24] Chippewas of Kettle and Stony Point First Nation; Six Nations of the Grand River; and Chippewas of Rama First Nation: see O.Reg.287/07, section 12.1.
[25] *Report of the Walkerton Inquiry (Part 2)*, page 486.

For plans that have already been approved by Ontario without adequate First Nations collaboration, support remediation co-management plans to ensure First Nations can actively participate in the protection of their source waters off reserve;

- engage First Nations communities in meaningful consultation, consistent with international standards, for all activities affecting treaty lands and traditional territories, and the water therein;

- develop robust and formal inter-governmental mechanisms with federal departments and First Nations for sharing expertise and traditional knowledge specific to water as it pertains to source protection, water and wastewater infrastructure, treatment, and monitoring;

- expand and enhance provision of in-kind technical/engineering expertise and capital funding that support safe drinking water on reserves.[26]

In our view, a coordinated and cooperative approach is necessary to prevent the ingress of contaminants into groundwater or surface water used to supply drinking water to indigenous communities in Ontario. CELA has prepared toolkits to assist First Nations in undertaking source protection efforts,[27] but it is clear that federal, provincial and municipal levels of government also have important roles to play in collaboration with indigenous communities, and such efforts need to continue far beyond the current initiatives underway in Ontario. Again, CELA submits that it is inequitable that only some residents of Ontario are benefitting from the province's source protection legislation, while the level of effort by Ontario to ensure source water protection as the first barrier to protect First Nations and non-municipal drinking water systems is severely lacking.

ISSUE #2: The Long-Overdue Revision of Ontario's Tritium Standard

It is astounding to CELA that in 2017, it is again necessary to call upon the provincial government to lower the tritium drinking water standard in O.Reg. 169/03 from 7,000 becquerels/litre to 20 becquerels/litre. Interestingly, drinking water standards for certain other parameters have been recently added or revised,[28] but the tritium standard has remained unchanged for decades.[29]

The 20 becquerels/litre standard has long been advocated by CELA and numerous other environmental organizations, public health groups, and interested stakeholders across Ontario. In 1994, Ontario's former Advisory Committee on Environmental Standards ("ACES") recommended that the tritium standard should be lowered to 20 becquerels/litre within five years. Unfortunately, this sound advice from the ACES was not implemented by the Ontario government.

In 2007, this matter was referred by the Minister of the Environment to the Ontario Drinking Water Advisory Council ("ODWAC"), which recommended in May 2009 that the tritium standard should

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[26] Human Rights Watch, *Make It Safe: Canada's Obligation to End the First Nations Water Crisis* (2016), page 22.
[27] http://www.cela.ca/first-nations-source-protection-toolkits
[28] See EBR Registry Notice 012-8244 (December 19, 2016).
[29] Generally, see J. Abouchar and T. McClenaghan, *Ontario Water Law (Vol. 1)* (Toronto: Canada Law Book, 2014), pages P1-20 to P1-21.

be lowered to 20 becquerels/litre.[30] This standard was selected after the ODWAC asked and answered the threshold question arising under Recommendation 18 of the Walkerton Inquiry Report: what tritium standard would enable a reasonable and informed person to feel safe consuming drinking water in Ontario?[31] Unfortunately, the ODWAC's carefully crafted advice to reduce the standard to 20 becquerels/litre has not been implemented by the province to date.

In our view, the continuing inaction on lowering the tritium standard cannot be justified by the Ontario government. On this point, we note that representatives of the nuclear industry have repeatedly assured Ontarians that nuclear generating stations can meet the 20 becquerels/litre standard without incurring additional cost.[32] Accordingly, there is no compelling reason for the Ontario government's inordinate delay in acting upon the ODWAC's recommendation.

PART III - CONCLUSIONS

For the foregoing reasons, CELA concludes that while significant progress has been made to implement the "multi-barrier" approach recommended by Mr. Justice O'Connor, Ontario still has some unfinished business in relation to source water protection and the tritium drinking water standard.

In particular, this submission makes two specific recommendations for further action by the Ontario government in order to protect drinking water quality:

1. The next round of source protection planning under the CWA must be expanded to include non-municipal drinking water systems which have been virtually excluded from the Source Protection Plans approved under the CWA.

2. The tritium drinking water quality standard in O.Reg.169/03 under the SDWA should be lowered to 20 becquerels per litre.

We trust that the above-noted recommendations will be duly considered and acted upon by the Ontario government. We would respectfully request your written response to each of the two issues raised by CELA in this submission. We would be pleased to meet with you or your staff to further discuss these necessary improvements to Ontario's drinking water regime.

Yours truly,

CANADIAN ENVIRONMENTAL LAW ASSOCIATION

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Richard D. Lindgren
Counsel

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[30] ODWAC, *Report and Advice on the Ontario Drinking Water Quality Standard for Tritium* (May 21, 2009).
[31] *Ibid.*, page 40.
[32] J. Abouchar and T. McClenaghan, *Ontario Water Law (Vol. 1)* (Toronto: Canada Law Book, 2014), page P1-21.

cc. Director, MOECC Source Protection Programs Branch
Environmental Commissioner of Ontario