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By email: protectingwater@ontario.ca

Protecting Water
Provincial Planning Policy Branch
Ministry of Municipal Affairs
777 Bay St., 13th Floor
Toronto, ON M5G 2E5

**Re: Protecting Water for Future Generations: Growing the Greenbelt in the Outer Ring
EBR Registry Number: 013-1661**

Canadian Environmental Law Association (CELA), Ontario Environment Network (OEN), and Ontario Headwaters Institute have co-authored this submission, which has been endorsed by the undersigned organizations and individuals. We appreciate the opportunity to provide comments on the proposal Protecting Water for Future Generations: Growing the Greenbelt in the Outer Ring (EBR Registry Number: 013-1661). Our organizations have significant interests in water protection and restoration in Ontario. CELA, OEN, and OHI believe that there is an urgent need to protect water resources in Ontario due to urbanization and rural development, and fluctuating weather patterns caused by climate change, which will have serious negative impacts on water quality and quantity in the province. In our submission, we provide some initial background about our WaterScape initiative, call on the Provincial government to meet its obligations to First Nations, Inuit and Métis in Ontario during this and any future consultations relating to water protection, outline our overarching, general and detailed, specific comments, and conclude with a summary list of our recommendations.

CELA has had a long history with water issues in Canada and particularly in the Great Lakes region. CELA advocates for the timely development and implementation of effective laws, regulations and policies to protect water resources within Ontario and across Canada. Among other things, CELA represented the Concerned Walkerton Citizens at the Walkerton Inquiry, and was actively involved in the development of the *Safe Drinking Water Act, 2002*, the *Clean Water Act, 2006*, and regulations, policies and guidelines thereunder. In addition, CELA has a Healthy Great Lakes program which seeks robust, holistic, well-implemented laws and public policy and an engaged citizenry to protect and restore the waters of the Great Lakes - St. Lawrence River Basin.

OEN has a mandate of facilitating communication and cooperation among organizations and individuals concerned with the preservation of the environment. Water is important to OEN members in ensuring that we move towards a more sustainable approach to decision making and actions that impact the environment. Over the years OEN's Water Caucus and members have contributed to Provincial efforts on water including selecting representatives for source water protection committees, and numerous submissions and deputations related to government efforts.

OHI is the only provincial organization dedicated to protecting our headwaters, through research, education, and best practices, and the leading NGO focused on watershed management. Past high-level contributions to the province's policy framework in these regards have resulted in the retention of the definition of a watercourse in the *Conservation Authorities Act* and amendments to the Provincial Policy Statement and to

four provincial plans during the Co-ordinated Land Use Planning Review to increase the requirement for watershed planning, the preservation of 30% of natural heritage in new development in natural heritage, and the maximum of 15% impervious surfaces in new development.

I. The WaterScape Initiative

To support the drafting of our submission, CELA, OEN, and OHI launched an initiative called WaterScape: Community Discussions on Protecting Water for Future Generations. We hosted six in-person sessions and one webinar with the following goals:

- To educate and engage interested individuals and organizations about Ontario's water protection policies, particularly in response to the above-noted proposal; and,
- To listen to the community, whose observations have informed this submission.

At each session, we sought feedback on the following questions:

1. Are the increased measures in the Greenbelt adequate to the need to protect water there?
2. Are there other areas of the province where increased protection for water should be applied?
3. Is the Province doing enough to protect water?

The WaterScape in-person sessions were held in Niagara-on-the-Lake, Brantford, Alton, Springwater, Goodwood, and Peterborough between February 6 and February 22. Overall, the in-person and online sessions attracted more than 170 total participants and relied on assistance from 11 local partners. A copy of the full Proceedings of WaterScape is available for download at:

<https://www.cela.ca/WaterScapeProceedings>. Here, excerpted, is text from the Executive Summary.

Protecting Water

- There was unanimous agreement at all meetings that the Province is not doing enough to protect water in the Greenbelt and indeed across Ontario.
- While it is clear that the Greenbelt provides some additional protection to water, participants noted that:
 - The added protective measures in the Greenbelt do not go far enough;
 - Water should be better protected in a comprehensive manner that includes natural heritage across the Greater Golden Horseshoe (GGH) and not just in the Greenbelt;
 - Water must be better protected in many areas outside of the GGH, such as the Ring of Fire;
 - Water conservation must be more aggressively pursued; and
 - Protecting Water for Future Generations (PWFG) needs to embrace an overarching government commitment to end the conditions causing boil water advisories.

Expanding the Greenbelt

- In spite of significant concerns related to mapping data and consultation efforts, there was consensus at all meetings that the proposed study areas should be considered for addition to the Greenbelt.
- There was also consensus for further expansion of the study areas under consideration to include significant portions of Brant, Niagara, Simcoe, and Peterborough, not all of which should have to be contiguous to the existing Greenbelt, as well as in areas identified by the Bluebelt proposal from the Oak Ridges Moraine Partnership.

Agriculture

- There was unanimous support for agriculture at the meetings, as well as concerns that agricultural impacts on water are not being recognized. Expanded seasons, alterations from historic water budgets, industrial farming, under-regulated use of fertilizers and pesticides, and biosolids

application to land were cited as concerns, as was needed support for organic farming and more sustainable practices.

Implementation

- The Province needs to support regional planning and provide oversight when municipalities fail to give due consideration to the protection of natural heritage and water.
- Conservation authorities need greater regulatory authority and there must be better inter-agency collaboration on implementation, monitoring, and enforcement.

Prime Regional Concerns

Peel/Dufferin: Aggregates trump water and producers have uneven access to decision-makers. Better integrated planning, with more support for natural heritage and sustainable agriculture, is needed.

Durham: Fill must be regulated and tested and agricultural lands preserved. Better integration for planning and enforcement, and more supervisory bodies similar to the Niagara Escarpment Commission, are needed.

Simcoe: PWFG takes too narrow a geographic and policy focus with problematic mapping. Greenbelt lands are needed in Simcoe. Municipalities need financial support. Boil water advisories must be addressed.

Brant: Poor planning, industrial farming, aggregates, and biosolid applications to land are impacting natural heritage and water. Greenbelting the Grand River watershed in Brant County held strong support.

Niagara: The study areas excluded moraines in Niagara that should be added, as well as connecting areas from a recent study. In addition to greenbelting, Niagara needs strong provincial policies and oversight.

Peterborough: PWFG talks systems but does not walk the talk. Local greenbelting to counter development targets in the Growth Plan is needed. Provincial oversight is needed. End boil water advisories.

II. Respecting indigenous rights and knowledge

Before proceeding with our general and specific comments related to the proposal, we wish to emphasize the importance of upholding the Provincial government's obligations to First Nations, Inuit and Métis in Ontario. Under the *Constitution Act, 1982*, section 35 recognizes and affirms aboriginal and treaty rights. Further, originating from the Royal Proclamation of 1763, the Provincial government must always behave toward indigenous communities in a manner that "upholds the honour of the Crown". Indigenous communities are keepers of traditional ecological knowledge that must be treated as equal to scientific knowledge, in order to best inform decision-making regarding water protection and restoration. In particular, we heard at the session hosted in Peterborough that we can learn about the ecosystem's characteristics, and inform restoration goals, from the indigenous perspective and history. We expect that Ontario will meet its obligations to indigenous communities both with respect to this proposal and in any further discussions regarding protecting water for future generations.

III. General comments

We see two overarching questions asked of the public within the [Public Consultation Document](#):

(i) consulting on the province's response to Recommendation 71 from the Co-ordinated Land Use Planning Review advisory panel (chaired by David Crombie), and

(ii) requesting that the public provide suggestions of any other provincial initiatives that ought to be considered to achieve the goal of protecting water for future generations.

The latter aspect is revealed in the ambitious and welcome final question (#11) in the Public Consultation Document, which states "What other priorities or initiatives do you think the Province should consider?" We read this to mean other priorities or initiatives than those contained in the current proposal. We provide some detailed suggestions later in our submission, with recommendations under six categories of immediate public policy needs. More generally, our experience has revealed that the legal framework for protecting and

restoring water in Ontario is fragmented and incomplete. There are multiple ministries and multiple laws, regulations, policies and intergovernmental agreements involved in protecting and restoring water. Addressing this fragmentation on a strategic level is partially dealt with under the *Great Lakes Protection Act, 2015*, through the legally mandated Ontario Great Lakes Strategy. However, this Strategy only addresses protection and restoration of the ecological health within the Great Lakes - St Lawrence River Basin in Ontario. What's needed is a comprehensive water strategy for all of Ontario; one that assesses gaps and opportunities within the existing legal framework and provides, particularly, for ensuring safe, clean water for vulnerable communities and future generations. In addition to the various initiatives that we recommend later in this submission (which could form part of a water strategy), we recommend that the Provincial government embark on a participatory process that leads to a comprehensive water strategy for all of Ontario. Ontario currently is one of three provinces and territories in Canada without a comprehensive water strategy (see Appendix at the end of the document).

Recommendation 1: That the Province embark on a participatory process leading to a comprehensive water strategy for all of Ontario.

The other key aspect we see in the Public Consultation Document relates to the Co-ordinated Land Use Planning Review advisory panel's Recommendation 71 (p150, [Planning for Health, Prosperity and Growth in the Greater Golden Horseshoe: 2015 – 2041](#)), quoted in full below.

Establish a Provincially led process, in consultation with the Niagara Escarpment Commission, municipalities, conservation authorities, stakeholders and the public, to grow the Greenbelt (including the Oak Ridges Moraine Conservation and Niagara Escarpment Plan areas) beyond its current boundary using a systems approach, based on areas of ecological and hydrological significance where urbanization should not occur, with consideration for:

- Protection of areas that sequester and store carbon or protect and improve resilience to climate change
- Rural source water protection priorities (i.e. not in settlement areas)
- Protection of adjoining areas of critical hydrological significance, such as important surface water areas, key headwaters, moraines, groundwater recharge areas, highly vulnerable aquifers and areas where stress on groundwater quantity may require further study
- Natural heritage systems as defined by municipalities and conservation authorities, with support for further studies and mapping where required
- Publicly owned lands (municipal, conservation authority, provincial and federal) that meet natural resource criteria for growing the Greenbelt
- Potential additions to the Niagara Escarpment Plan area as identified by the Niagara Escarpment Commission
- Minimizing negative impacts on agricultural viability
- Opportunities for education on the values of the Greenbelt such as public health benefits, biodiversity, ecosystem services, connectivity, growth management, and climate change mitigation and adaptation

The current proposal, as described in the [EBR Registry Notice](#), in the Public Consultation Document, and at the half-day stakeholder meeting held on January 25 in Toronto (attended by representatives from CELA, OEN, and OHI), does not meet all of the considerations outlined in the full recommendation quoted above and we presume is only the first step for the province to take in implementing this recommendation from the Crombie panel. For example, we note that the first proposed step in identifying the study area for consideration in the subject Proposal was to first use “historic and forecasted population change in the outer ring” to narrow the focus “to the western part of the outer ring where population growth is the highest” (p9,

Public Consultation Document). This approach, of identifying only those areas under the greatest population pressures as determinative of the study areas to be considered, is inconsistent with the approach recommended by the advisory panel. In particular, the proposed approach is inconsistent with a “systems approach” that identifies “areas of ecological and hydrological significance” as the lens through which “urbanization should not occur”.

Further, the Public Consultation Document indicates that the map of the proposed study areas was generated using watershed/catchment areas boundaries and then also indicates that the areas were limited by requiring that they be within the Greater Golden Horseshoe (para 3, p14, Public Consultation Document). This latter limitation is extremely unfortunate, as it is also inconsistent with a systems approach (e.g., municipal boundaries ought not to be a determining factor in identifying the study area or areas).

As well, the Public Consultation Document further limits what will be considered as part of the study area, as the focus is on “major moraine areas that connect to the current Greenbelt” (para 4, p14, Public Consultation Document). As described in more detail below, there are likely areas of “ecological and hydrological significance” that are being ignored with this limitation.

Of deepest concern are statements in the Public Consultation Document that suggest the approach recommended above will not be followed. The advisory panel’s Recommendation 71 puts the identification of ecological and hydrological significance up front, with the indication that urbanization would be limited in those identified areas. The proposed approach in the Public Consultation Document not only puts the development pressure first (as outlined earlier), it also indicates (at para 1, p18, Public Consultation Document): “In the context of considering potential Greenbelt expansion, this creates the need to balance protection of water resources with accommodating appropriate urban growth over the long term.” Provincially and locally, land use planning decisions that balance development pressures with protecting water (and more broadly, the natural environment) have been made for decades and that approach has failed to ensure that the ecosystem’s carrying capacity is not exceeded (as development is generally prioritized over water protection) and that the cumulative impacts are adequately addressed. Further, the Public Consultation Document indicates that mineral aggregates and infrastructure (roads, transmission lines, other linear physical infrastructure) will also continue to be prioritized over water (and natural heritage) protection. If the intent is to protect water for future generations, the approach to determining the study area or areas must first consider ecological and hydrological significance and ensure that water protection is given priority over other provincial interests.

Recommendation 2: That the Province ensure that the approach taken to considering areas for future Greenbelt expansion more closely aligns with Recommendation 71 in Planning for Health, Prosperity and Growth in the Greater Golden Horseshoe: 2015-2041. Specifically, that the Province first use a systems approach to determine the areas of ecological and hydrological significance before considering other provincial interests.

Finally, in order to realize the full benefits of any and all initiatives that are intended to protect water for future generations, investments in capacity, monitoring, implementation, compliance, and enforcement are necessary. There will need to be cross-ministerial cooperation and coordination. And, the Province will need to ensure that the necessary resources are dedicated to fulfilling the objectives.

Recommendation 3: That the Province ensure adequate resources are committed to monitor and implement, and ensure compliance with and enforcement of, any and all government initiatives to protect water for future generations.

IV. Specific comments, related to consultation questions

In the remainder of the submission, we provide specific comments regarding each of the questions identified in the Public Consultation Document.

Re. Identifying the study area (pp 9-13, Public Consultation Document)

1. Are there additional “building blocks” features that should also be considered for addition to the Greenbelt to protect water?

As noted above, identifying areas of ecological and hydrological significance is of utmost importance. As such, the “building blocks” features ought to include, in addition to the proposed moraines, coldwater streams, and wetlands, other features identified by the advisory panel including:

- important surface water areas
- key headwaters
- groundwater recharge areas
- highly vulnerable aquifers and areas where stress on groundwater quantity may require further study

Furthermore, there are likely areas of ecological significance that are particularly relevant to ensuring climate resilience and water protection, such as forests. These ecologically significant areas ought to be identified and considered.

Recommendation 4: That the Province consider, in addition to the proposed moraines, coldwater streams, and wetlands, other water features identified by the advisory panel in their Recommendation 71 including: important surface water areas; key headwaters; groundwater recharge areas; and highly vulnerable aquifers and areas where stress on groundwater quantity may require further study. Areas of ecological significance that are particularly relevant to ensuring climate resilience and water protection, such as forests, also ought to be considered.

2. Are there additional data sets or types of analysis that should be considered?

We recommend that consideration be given to the “bluebelt map” proposed by the Oak Ridges Moraine Partnership (see The Proposed #ProtectOurWaters Plan (map), available at <http://www.protectourwaters.ca/maps>). The proposed “bluebelt map” includes vulnerable areas that are not limited by the amount of population pressure, including “threatened headwaters, moraines, groundwater recharge and discharge areas, wetlands, rivers and streams” (see description under thumbnail of map at <http://www.protectourwaters.ca/maps>).

Further, areas of ecological and hydrological significance that are not necessarily already connected with current boundaries of the Greenbelt ought to be considered.

Recommendation 5: That the Province consider areas identified in the “bluebelt map” proposed by the Oak Ridges Moraine Partnership and areas of ecological and hydrological significance that are not necessarily connected with the current boundaries of the Greenbelt.

Re. Study area mapping (pp14-17, Public Consultation Document)

3. Of the seven areas, are there some that are more or less important?

We find this question to be problematic. What would be used to determine importance? What’s the motivation for this question? Will some areas be dropped from consideration for future Greenbelt expansion because they are “not important enough”?

The Public Consultation Document introduces the term “important water features” which is not explicitly defined and has not been used in any of the four existing provincial plans (Greenbelt Plan, Niagara Escarpment Plan, Oak Ridges Moraine Conservation Plan, and Growth Plan for the Greater Golden

Horseshoe). The discussion of the analysis that was used to determine the “important water features” (see paras 1-6, p 9, Public Consultation Document) does not disclose whether there is any background/technical documents or memos about how the importance was determined. No other information was made available through the EBR Registry Notice, other than the Public Consultation Document. What we’re assuming is that the importance has been predetermined by the approach taken, which, as we have already discussed, is inconsistent with the approach that ought to be taken. The Province needs to first determine the areas of ecological and hydrological significance (see our Recommendation 2, above).

4. Are there areas beyond the study area that you think should be considered for potential future Greenbelt expansion?

Of particular significance, in addition to our Recommendation 4 above, the significant moraines, coldwater streams, and headwaters in Brant, Niagara, Simcoe, and Peterborough regions must also be considered.

Recommendation 6: That the Province consider the significant moraines, coldwater streams, and headwaters in Brant, Niagara, Simcoe, and Peterborough regions for future Greenbelt expansion.

5. Should the Province consider adding rivers that flow through urban areas as Urban River Valleys in the Greenbelt?

Yes. All rivers that flow through urban areas should be included as Urban River Valleys. Without limiting consideration of such rivers, examples include the Grand and Welland Rivers. (Also see our Recommendation 4, above).

Recommendation 7: That the Province consider adding all rivers that flow through urban areas as Urban River Valleys in the Greenbelt.

Re. growth and settlement considerations (pp18-20, Public Consultation Document)

6. With the range of settlement areas in the GGH, how should the Province balance accommodating future urban growth with protecting water resources?

Rather than taking a “balancing” approach, we strongly recommend that the Province begin prioritizing water protection and ensuring that growth is accommodated by what the ecological and hydrological systems sustain. This requires taking an Integrated Watershed Management approach to planning and decisions.

Recommendation 8: That the Province begin prioritizing water protection and ensuring that growth is accommodated by taking an Integrated Watershed Management approach to planning and decisions.

7. What are other key considerations for drawing a potential Greenbelt boundary around settlement areas?

As expressed earlier, a systems approach based on Integrated Watershed Management could identify key hydrologic features that need protection. Boundaries should be drawn around such hydrologic features, with consideration for appropriate or needed uses such as agriculture, rather than drawing boundaries around settlement areas.

Recommendation 9: That the Province draw boundaries around the hydrologic features, in order to determine where urbanization is not to occur, as well as to identify key features and functions that must be protected as a priority in respect of any development that does occur.

8. *How should the Province determine which settlement areas become towns/villages or hamlets, if included in a potential Greenbelt?*

This question is problematic, broaches issues not covered in the consultation document, and is too complex for a brief comment. Regardless, we believe that municipal designation might do well to be based on population, with limits based on regional water self-sufficiency.

Re. Other provincial priorities and initiatives (pp21-23, Public Consultation Document)

9. *Once the Agricultural System and Natural Heritage System under the Growth Plan are finalized, how should they be considered as part of potential Greenbelt Expansion?*

The [Agricultural Systems](#) (map) and [Natural Heritage System](#) (mapping tool) have been finalized under complementary processes. Given the potential that these two systems are crucial to taking a systems approach and determining the ecological and hydrological significance of any study area or areas identified for the purpose of protecting water for future generations, and for Greenbelt expansion specifically, they ought to be integrated into the approach taken to identifying the study area or areas.

Recommendation 10: That the Province integrate the existing identified systems (agricultural and natural heritage) in the approach taken to determine ecological and hydrological significance for the purpose of identifying study area or areas for Greenbelt expansion.

10. *How should other provincial priorities or initiatives, such as mineral aggregates and infrastructure, be reflected in potential Greenbelt expansion?*

As with our comments regarding accommodating growth (see our Recommendation 5, above), we strongly recommend that the Province begin prioritizing water protection and ensuring that other provincial priorities (such as mineral aggregates and infrastructure) are consistent with what the ecological and hydrological systems can sustain. This requires taking an Integrated Watershed Management approach to planning and decisions.

Recommendation 11: That the Province begin prioritizing water protection and ensuring that other provincial priorities (such as mineral aggregates and infrastructure) are accommodated by taking an Integrated Watershed Management approach to planning and decisions.

11. *What other priorities or initiatives do you think the Province should consider?*

As noted in our Recommendation 1, above, the Provincial government needs to develop a comprehensive water strategy for all of Ontario. That strategy will need to address both existing and needed public policy and seek to understand gaps and opportunities. In some cases, Ontario will already have existing legal tools that are not well implemented and/or are not adequately enforced. In other cases, there is a public policy need that is not being fulfilled by the existing legal framework. Until such time as a comprehensive strategy can be developed and moved to action, there are several priorities that the Provincial government ought to focus on. We group these priorities into six categories and associated recommendations in the following discussion.

Category 1. Drinking water protection for particularly vulnerable communities

For over a decade now, Ontario has been committed to a multi-barrier approach to drinking water protection. For those on private well water, there are insufficient barriers to protecting drinking water due to the Province discouraging the inclusion of towns, villages, and hamlets not on municipal water treatment systems to be elevated as drinking water systems under the *Clean Water Act*. The lack of protection is further exacerbated due to deficiencies in the wells regulation, Reg 903 under the *Ontario Water Resources Act*. The Province recently concluded a review of that Regulation that commenced in late 2014; however, no actions have been taken to date to amend the regulation and follow-up on other non-regulatory actions.

Further, according to [WaterToday](#), there are currently 67 boil water advisories and 4 do not consume advisories in Ontario. Many of these advisories are on First Nation reserves. Some of these advisories have been in place for more than a decade, and two First Nations have been under boil water advisories for more than two decades: Neskantaga First Nation (since 1995) and Shoal Lake No. 40 First Nation (since 1997). These significant deficiencies in drinking water systems in Ontario must be addressed.

Recommendation 12

That the Province provide drinking water protection for particularly vulnerable communities by:

- **Addressing deficiencies in well Reg 903**
- **Eliminating all long-standing boil water advisories and persistent drinking water quality violations**

Category 2. Existing planning tools

Source protection planning under the *Clean Water Act, 2006* has (to date) resulted in 22 approved plans covering more than 450 municipal drinking water systems. However, one-third of Ontarians and 98% of rural Ontario rely on non-municipal water systems, and are therefore particularly vulnerable to threats to their drinking water. The *Clean Water Act, 2006* enables these non-municipal systems (including First Nations drinking water systems, or groups of six or more private wells) to be included in source protection planning. It is our understanding that only three First Nations systems and no private well clusters in towns or villages have ever been included under the *Clean Water Act, 2006*. Given the issues raised in Category 1, above, there is a particularly urgent need to ensure these non-municipal systems are provided with source protection planning opportunities.

One of the purposes of Ontario's *Water Opportunities Act, 2010*, is "to conserve and sustain water resources for present and future generations" (s1(1)(c)). The Act enables the development of municipal water sustainability plans (to incorporate planning for drinking water, wastewater, and stormwater services into one process/document), and associated targets and performance indicators. No implementing regulation has yet been developed.

Recommendation 13

That the Province fully implement existing planning tools by:

- **Expanding drinking water source protection to sources/areas not yet implemented under the *Clean Water Act, 2006***
- **Developing an implementing regulation to allow the use of municipal water sustainability plans, targets, and performance indicators under the *Water Opportunities Act, 2010***

Category 3: Water management program

In December 2016, Ontario filed O Reg 463/16 which imposed a moratorium on new and expanded permits to take water from groundwater sources for the purpose of producing bottled water until January 1, 2019. During the moratorium, Ontario committed to, among other things:

- Conduct groundwater research
- Review existing groundwater management rules, in order to ensure protection of groundwater for future generations
- Seek public input on the groundwater permitting process and groundwater management moving forward

We are awaiting the Province's results of the review and proposals for improving the groundwater management program.

In order to “recover a portion of the costs the Government of Ontario incurs in the administration of the [*Ontario Water Resources Act*] and any other Act for the purpose of promoting the conservation, protection and management of Ontario’s waters and their efficient and sustainable use” (s1, O. Reg. 450/07), the Province established water charges. A water charge was immediately established for “high-consumptive users” (including for water bottling, fruit and vegetable canning or pickling, ready-mix concrete manufacturing, agriculture chemical manufacturing) and commitments were made to phase in water charges for low- and medium-consumptive users. In 2016, Ontario’s Auditor General reported that the current water charges program was not successfully recovering costs stating: “The Ministry is only recovering about \$200,000 of the \$9.5 million direct annual program costs attributable to the taking of water by industrial and commercial users.” (p411, [Chapter 3, VFM Section 3.12, Source Water Protection](#)). At the time, the Ministry of the Environment and Climate Change’s response was that they were “working on proposals that would bring water charges towards full cost recovery and sustainability. This will be done in consultation with key stakeholders.” (p433) No new water charges for any low- or medium-consumptive users have been proposed or adopted.

In order to address cumulative impacts in particular, independent public bodies that have responsibility for waters on a scale larger than current conservation authorities could be established to review various reports and make recommendations for strategic action.

Further, water conservation must be given greater attention, with public reporting regarding the conservation efforts of relevant public bodies and municipalities.

Recommendation 14

That the Province improve the water management program by:

- **Improving the Province’s groundwater management program**
- **Fully phasing in water charges for all types of commercial consumptive users under O Reg 450/07**
- **Considering the establishment of Regional Water Boards to review water quantity and quality reports, as well as watershed report cards and recommend strategic actions. Such Boards could become, for example, an on-going task of existing Source Protection Committees**
- **Ensure a higher public profile for water conservation and the results of municipal efforts in this regard**

Category 4: Water pollution prevention

Excess nutrient (primarily phosphorus) pollution, coming from point (e.g., wastewater from industry and municipalities) and non-point (e.g., agricultural runoff) sources can cause algae blooms. The reporting of algae blooms in Ontario’s water bodies has increased dramatically between 1994 and 2010 (see [Algae Blooms in Ontario's Lakes: Analyzing the trends](#) a slide deck from the Ministry of the Environment and Climate Change). Algae blooms impact water quality in different ways, ranging from unpleasant odours and tastes to contaminated drinking water supplies due to toxin production by cyanobacteria (e.g., as was experienced by the City of Toledo, Ohio in 2014). Addressing algal blooms will be of increasing concern going forward, particularly as weather is impacted by climate change.

Further, water quality at Ontario’s public beaches impacts whether it is safe for swimming. While beaches are monitored for e-coli pollution and posted when water quality standards are exceeded, more needs to be done both to inform the public in a more timely manner (e.g., in real-time) of pollution events that may impact water quality, such as sewage spill and combined-sewer overflows, and to ensure that releases of inadequately treated or untreated sewage are eventually eliminated.

Finally, additional chemicals of concern, including pharmaceuticals and personal care products are being released into water bodies from industrial and municipal wastewater sources. Some of these are potentially harmful to both people and animals, as they block, mimic or disrupt normal hormonal function in organisms. Other impacts to health can include impairment of reproductively, alteration of sex characteristics, delayed cognitive development, and some cancers. While some of these can be degraded by certain wastewater treatment processes, others are either not degraded or are emitted through pathways that don't include treatment. Compounds of concern can be found in many items that are being used daily, including in flame retardants, fragrances, pesticides, and plastics. More needs to be done to prevent the use and release of these chemicals.

Recommendation 15

That the Province prevent water pollution by:

- **Preventing nuisance algae by reducing overall emissions of nutrient pollutants to water from Ontario industries and municipalities**
- **Supporting implementation of agricultural best management practices to manage the impacts of nutrients on water quality**
- **Ensuring real-time, public notification of sewage spills, including combined sewage overflow (CSO) events, in all municipalities, and eliminating the release of inadequately treated or untreated sewage**
- **Reducing overall emissions of carcinogens and other toxic (persistent, bioaccumulative, and endocrine disrupting) chemicals in industrial and municipal wastewater**

Category 5: Addressing stormwater issues

With a changing climate (more frequent and intense rainfall events) and increased urbanization (more hard surfaces, such as parking lots, roofs, roads, sidewalks), the natural water cycle is disrupted, creating greater amounts of runoff or stormwater. We see the impacts in flood events. The Insurance Bureau of Canada has reported more than \$850 million in property damage associated with the 2013 storm that resulted in significant flooding in the Greater Toronto Area. Investments in green infrastructure solutions (which, according to Ontario's definition in the current Provincial Policy Statement and other provincial plans including the Greenbelt Plan, includes both natural heritage features such as forests and wetlands and engineered solutions such as bioswales) can help to slow water down and allow it to be absorbed, getting us closer to the natural hydrologic cycle. Specific investments in living green infrastructure and seeking to have goals for re-establishing a tree canopy can both mitigate and adapt to climate change. Further, understanding the extent to which we are vulnerable to flooding is important to informing public policy going forward.

Recommendation 16

That the Province address stormwater issues by:

- **Dedicating 15% of provincial infrastructure funds to implementing living green infrastructure**
- **Ensuring all municipalities set and achieve tree canopy targets**
- **Assessing the extent of flood vulnerabilities through watershed and shoreline studies**

Category 6: Protecting biodiversity for water

Ontario, particularly through the Ministry of Natural Resources and Forestry's [mandate letter](#), has made commitments for "leading conservation", "strengthening biodiversity" and "minimizing the impact of invasive species". Following through on these commitments can enhance the health of Ontario's ecosystems, allowing for additional climate change resilience.

Further, the application of road salts for winter maintenance of our highways, roads, sidewalks and parking lots is causing increased chloride pollution, particularly in southern Ontario. In one particular Ontario river chloride loadings can reach concentration peaks in some locations at certain times that are as high as seawater. That's 167 times the amount that is currently considered safe for freshwater aquatic life and 80 times higher than the drinking water quality objective. High amounts of chloride pollution can be corrosive, damaging infrastructure and personal property, including road surfaces, concrete structures, vehicles, clothing, etc. As well, significant impacts on fish and aquatic life can be experienced. If sodium chlorides in particular are being used, there is also the potential to create a drinking water risk to people with hypertension. Addressing the use of road salts has, with a changing climate, become increasingly urgent.

Recommendation 17

That the Province protect biodiversity for water by:

- **Protecting 17% of Ontario's lands and fresh waters, in accordance with Canada's commitment under the Convention on Biological Diversity**
- **Protecting and restoring wetlands to move us toward reversing wetland loss**
- **Reviewing, integrating, and managing substances that are harmful to aquatic life, including chloride pollution from the application of road salts**
- **Preventing invasive species, such as Asian carp, from taking hold in Ontario and stepping up efforts to knock back invasive species that have already taken hold, including phragmites and the round goby**

V. List of Recommendations

Collected here for ease of reference is a summary list of our recommendations.

Recommendation 1: That the Province embark on a participatory process leading to a comprehensive water strategy for all of Ontario.

Recommendation 2: That the Province ensure that the approach taken to considering areas for future Greenbelt expansion more closely aligns with Recommendation 71 in Planning for Health, Prosperity and Growth in the Greater Golden Horseshoe: 2015-2041. Specifically, that the Province first use a systems approach to determine the areas of ecological and hydrological significance before considering other provincial interests.

Recommendation 3: That the Province ensure adequate resources are committed to monitor and implement, and ensure compliance with and enforcement of, any and all government initiatives to protect water for future generations.

Recommendation 4: That the Province consider, in addition to the proposed moraines, coldwater streams, and wetlands, other water features identified by the advisory panel in their Recommendation 71 including: important surface water areas; key headwaters; groundwater recharge areas; and highly vulnerable aquifers and areas where stress on groundwater quantity may require further study. Areas of ecological significance that are particularly relevant to ensuring climate resilience and water protection, such as forests, also ought to be considered.

Recommendation 5: That the Province consider areas identified in the "bluebelt map" proposed by the Oak Ridges Moraine Partnership and areas of ecological and hydrological significance that are not necessarily connected with the current boundaries of the Greenbelt.

Recommendation 6: That the Province consider the significant moraines, coldwater streams, and headwaters in Brant, Niagara, Simcoe, and Peterborough regions for future Greenbelt expansion.

Recommendation 7: That the province consider adding all rivers that flow through urban areas as Urban River Valleys in the Greenbelt.

Recommendation 8: That the Province begin prioritizing water protection and ensuring that growth is accommodated by taking an Integrated Watershed Management approach to planning and decisions.

Recommendation 9: That the Province draw boundaries around the hydrologic features, in order to determine where urbanization is not to occur, as well as to identify key features and functions that must be protected as a priority in respect of any development that does occur.

Recommendation 10: That the Province integrate the existing identified systems (agricultural and natural heritage) in the approach taken to determine ecological and hydrological significance for the purpose of identifying study area or areas for Greenbelt expansion.

Recommendation 11: That the Province begin prioritizing water protection and ensuring that other provincial priorities (such as mineral aggregates and infrastructure) are accommodated by taking an Integrated Watershed Management approach to planning and decisions.

Recommendation 12

That the Province provide drinking water protection for particularly vulnerable communities by:

- Addressing deficiencies in well Reg 903
- Eliminating all long-standing boil water advisories and persistent drinking water quality violations

Recommendation 13

That the Province fully implement existing planning tools by:

- Expanding drinking water source protection to sources/areas not yet implemented under the *Clean Water Act, 2006*
- Developing an implementing regulation to allow the use of municipal water sustainability plans, targets, and performance indicators under the *Water Opportunities Act, 2010*

Recommendation 14

That the Province improve the water management program by:

- Improving the Province's groundwater management program
- Fully phasing in water charges for all types of commercial consumptive users under O Reg 450/07
- Considering the establishment of Regional Water Boards to review water quantity and quality reports, as well as watershed report cards and recommend strategic actions. Such Boards could become, for example, an on-going task of existing Source Protection Committees
- Ensure a higher public profile for water conservation and the results of municipal efforts in this regard

Recommendation 15

That the Province prevent water pollution by:

- Preventing nuisance algae by reducing overall emissions of nutrient pollutants to water from Ontario industries and municipalities

- **Supporting implementation of agricultural best management practices to manage the impacts of nutrients on water quality**
- **Ensuring real-time, public notification of sewage spills, including combined sewage overflow (CSO) events, in all municipalities, and eliminating the release of inadequately treated or untreated sewage**
- **Reducing overall emissions of carcinogens and other toxic (persistent, bioaccumulative, and endocrine disrupting) chemicals in industrial and municipal wastewater**

Recommendation 16

That the Province address stormwater issues by:

- **Dedicating 15% of provincial infrastructure funds to implementing living green infrastructure**
- **Ensuring all municipalities set and achieve tree canopy targets**
- **Assessing the extent of flood vulnerabilities through watershed and shoreline studies**

Recommendation 17

That the Province protect biodiversity for water by:

- **Protecting 17% of Ontario's lands and fresh waters, in accordance with Canada's commitment under the Convention on Biological Diversity**
- **Protecting and restoring wetlands to move us toward reversing wetland loss**
- **Reviewing, integrating, and managing substances that are harmful to aquatic life, including chloride pollution from the application of road salts**
- **Preventing invasive species, such as Asian carp, from taking hold in Ontario and stepping up efforts to knock back invasive species that have already taken hold, including phragmites and the round goby**

As previously stated, we appreciate the opportunity to respond to the proposal Protecting Water for Future Generations: Growing the Greenbelt in the Outer Ring. We extend an offer to meet with you to discuss anything in our submission. If you have any questions, or would like to set up a meeting, please contact Anastasia Lintner (anastasia@cela.ca or 647-705-7564).

Sincerely,

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Special Projects Counsel	Wendy Thomson	Executive Director
Healthy Great Lakes	Ontario Environment Network	Ontario Headwaters Institute
Canadian Environmental Law Association	Steering Committee	

Cc: Dianne Saxe, Environmental Commissioner of Ontario (commissioner@eco.on.ca)

The following organizations and individuals endorse this submission:

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Bronwen Tregunno President, Hamilton Naturalists	Cassie Barker Executive Director, WHEN - Women's Healthy Environments Network	Cheryl Lyon President, Transition Town Peterborough

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Garcia Jane Secretary, Protecting Agricultural Land	Garry T. Hunter President, Hunter and Associates	Gloria Marsh York Region Environmental Alliance
Graham Flint President, Gravel Watch Ontario	Hart Jansson Voting Member, Halton Chapter, Council of Canadians	Heather Ray Water Program Manager, GreenUP
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Appendix - Provincial and Territorial Water Strategies

[Water for Life - Alberta's Strategy for Sustainability](#)

[Living Water Smart \(BC\)](#)

[The Manitoba Water Strategy](#)

[A Water Strategy for New Brunswick 2018-2020](#)

[Northern Voices, Northern Water - NWT Water Stewardship Strategy \(and Action Plan 2016-2020\)](#)

[Water for Life: Nova Scotia's Water Resource Management Strategy](#)

[Prince Edward Island Watershed Strategy](#)

[Québec Water Strategy 2017-2032](#)

[25 Year Saskatchewan Water Security Plan](#)

[Water for Nature, Water for People - The Yukon Water Strategy and Action Plan](#)

To the best of our knowledge, only Newfoundland and Labrador, Nunanvut, and Ontario do not have provincial/territorial water strategies.