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September 4, 2019

Carolyn O'Neill
Great Lakes Office
40 St Clair Avenue West, Floor 10
Toronto, ON, M4V1M2

Re: Draft Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health (ERO# 019-0198)

Dear Ms. O'Neill:

Thank you for the opportunity to review and comment on the above noted Environmental Registry of Ontario posting. The following comments are provided by Region of Peel (the Region) staff as input into the Draft Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health.

The Region appreciates the commitment of the federal and provincial governments for sharing their vision for 'healthy, prosperous and sustainable Great Lakes for present and future generations.' Over the course of our twenty-year Strategic Plan (2015-2035) entitled Community for Life, the Region aims to create an environmentally friendly community. The focus of this current Term of Council (2018-2022) is on building a resilient environment, of which a healthy and prosperous Great Lakes would be integral to achieving this goal for present and future generations in Peel. The Region looks forward to working closely with both levels of government on the actions and commitments in the agreement that involve or affect municipalities and expects that the federal and provincial governments will actively consult and engage municipalities.

Most of the Region's comments focus on specific commitments and results in the draft agreement. These comments are outlined in the table attached to this letter and are grouped by the section of the agreement or for the most part by annex. Regional staff also have general comments about the draft agreement that are outlined below.

General Comments

Include More Details

The agreement could be strengthened with the inclusion of more details. There is no clear implementation mechanism or timelines for reporting on progress. Also, some of the commitments in the agreement are vague. For example, Annex 10: Climate Change Impacts and Resilience – Result 1 (b) (pg. 70) states "Collaborate with others to apply national level climate research and modelling to regional scale projections for climate change elements such as air, and water temperature…". It would be helpful to indicate who the "others" are or at least include the sectors.

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Clarify if commitments and results are new or existing

It is not clear if the agreement's commitments and results are brand new, ongoing or have been modified from the existing agreement. It is also not clear how the commitments or actions in the agreement enhance or align with existing policies and regulations. Perhaps a compendium document that compares the existing agreement to the draft agreement can be developed so that stakeholders reviewing the draft agreement have a clear idea of what is entirely new, existing but modified, or status quo (no change).

Other General Comments

On the issue of reducing waste and plastic waste in the Great Lakes Basin, it is suggested that a commitment to promote and support a circular economy be added to the agreement. This might fit most appropriately in the principles section of the agreement.

It is also suggested that the agreement include a commitment that any science-based studies completed by either government (Canada or Ontario) be shared with staff from all three levels of government. This too could be added to the principles section of the agreement or in the appropriate annexes.

Reference to "support" is made throughout the agreement; however, it is unclear what "support" entails in relation to the development and implementation of programs and policies. The agreement would therefore benefit from further clarification around "support" and what level of government would be providing it.

The ongoing source water protection efforts do not appear fully acknowledged in the agreement, making it unclear how the proposed commitments align and build upon the source protection planning.

Conclusion

The Region is interested in continuing to engage your ministry as it finalizes the agreement and moves forward with implementation. Should you have questions or require more information, please contact me or Justyna Burkiewicz, Manager of Water and Wastewater Regulatory Compliance at Justyna.Burkiewicz@peelregion.ca or 905-791-7800 ext. 4494.

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Attachment:
Region of Peel Specific Comments on the Draft Canada-Ontario Agreement on Great Lakes Water Quality & Ecosystem Health, 2020

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Region of Peel Staff Comments
Draft Canada-Ontario Agreement on Great Lakes Water Quality & Ecosystem Health, 2020

Agreement Section	Result/Commitment	Comments
Principles	(e)	Suggest replacing "wise" with "efficient" as "efficient" is a more precise and measurable term than "wise".
	General Comment	It is suggested to include a commitment to promote and support a circular economy towards reducing waste and plastic waste in the Great Lakes Basin.
		Also consider including a commitment that any science-based studies completed by either government (Canada or Ontario) be shared with staff from all three levels of government.
Annex 1: Nutrients	5 (c) Estimate and report on seasonal and annual phosphorus loads from Canadian sources to Lake Erie and, based on available data, for Lake Ontario;	Consider existing reporting tools and instruments (some regulated) for seasonal/annual phosphorous loads reporting to avoid duplication, streamline the process and reduce the burden on municipalities.
	5 (d) For selected tributaries, improve understanding of how the activities of different sectors and seasonal characteristics are influencing water quality at the shores of Lakes Erie and Ontario, including point sources and role of sewage overflows and bypasses;	Modelling studies be funded and conducted to determine the level of impact by sewage overflows and bypasses from sewage plants and sewage conveyance pump stations. Annex 2 speaks to the primary function of the wastewater facilities to treat human waste by reducing nutrients and pathogens and therefore, with plants not being designed to remove chemicals of concern, point sources should be thoroughly examined and solutions at the source established (point source treatment/enforcement).
	5 (n) Investigate the influence of climate change on the Great Lakes, including nutrient and in-lake conditions, through the deployment of long-term climate buoys.	Added attention to a land weather adaptation strategy is needed to manage inflow and infiltration that creates significant impact to sewage collection system and plant capacity, triggering overflow/bypass events and potential nutrient loadings.

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Annex 2: Harmful Pollutants	Introduction (p. 21)	Consider naming pharmaceuticals in this section. Improper disposal of pharmaceuticals leads to traces of pharmaceuticals in soil and water. While concentration levels of the products may be very low, the cumulative effects on the environment and health need to be considered and/or monitored. Per Result 2 (a) life-cycle management of pharmaceuticals needs continued attention.
	2 (i) Work with key sectors to develop, support and enhance programs and best management practices that reduce the release of Chemicals of Concern; (j) Work with small and medium-sized enterprises, and others, who discharge to municipal sewer systems to reduce their inputs of Chemicals of Concern and other harmful pollutants to these systems;	Suggest examining existing enforcement strategies (e.g. municipal by-laws) to encourage consistency of limits for chemicals of concern discharged and develop guidance for inspection and monitoring programs.
	4 (e) Develop environmental indicators of wastewater treatment performance that are indicative of long-term impacts on ecosystem health.	Suggest that Ontario develop these indicators collaboratively with the municipalities and define long-term impacts on eco-system health.

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	5 (c) Advance research, surveillance and monitoring activities on plastic and microplastic pollution in the Great Lakes basin, including: i. Sharing information on the occurrence, effects, sources, fate, mitigation and abatement methods; and ii. Working to standardize monitoring and analysis procedures.	Consider research to include the study of the impacts (short and long term) of climate change on public and ecosystem health.
	5 (l) Ontario will: Consider plastic pollution in wastewater and stormwater policies.	Suggest stronger control of upstream sources of plastic pollution and "polluters" to eliminate the need to develop policies on plastic pollution in wastewater and stormwater that focus on behavior change and life cycle management.
Annex 3: Wastewater & Stormwater	1 (b) Canada and Ontario will: Promote infrastructure planning and eligible investments that support the reduction of excess nutrients from point sources such as municipal wastewater treatment systems, including overflows and bypasses as priority considerations under applicable infrastructure and other funding programs.	All three levels of government should work together to develop timeframes that correspond to a realistic infrastructure planning and implementation cycle (i.e., 10 years). This will allow municipalities to deliver infrastructure in a fiscally sound manner and would align with the deliverables of the agreement.
	1 (e) Ontario will: Update wastewater policies and develop a	To better understand the impact of updated policies on existing wastewater treatment plants or their applicability to newly constructed plants it's recommended that there be discussions with

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Annex 3: Wastewater & Stormwater	new stormwater management policy, including policies specific to treatment requirements, sewage overflows and bypasses to enhance environmental protection and reduce nutrient loadings;	municipalities on the timing and scope of the new regulations to ensure they are fiscally and environmentally feasible. These policies should reflect future climate projections and enhance stormwater management to account for climate change.
	1 (f) Ontario will work with municipalities to implement approaches to improve monitoring and reporting of sewage overflows and bypasses, and continue to monitor incidents and municipal actions to minimize overflows and bypasses and achieve co-benefits of nutrient reduction	Monitoring and reporting of overflows and bypasses already exist in the Ontario Wastewater Approvals framework and the 'Made in Ontario Environment Plan.' The province is encouraged to align all these requirements to maximize the benefit and ensure implementation is as efficient as possible.
	1 (h) Ontario will: Where feasible, work with municipal partners toward reducing loadings through improvements to stormwater management systems (including facility rehabilitation and incorporation of green infrastructure and innovative treatment technologies)	Consider mentioning in Annex 3, Result 1 (i) and (h) the co-benefits, or cumulative effects when it comes to green infrastructure and low impact development. Implementing these initiatives can also help manage the effects of climate change by mitigating the effects of intense storm events through reduction in stormwater flows.
	1 (i) Ontario will: Work with developers, municipalities, conservation authorities and others to promote and support the use of	The wording "clarifying and enhancing policies" suggests that municipalities will be expected to use green infrastructure. The province is encouraged to work with stakeholders to determine the impacts of this commitment on the building permit and site plan processes.

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	green infrastructure and low impact development systems for stormwater management, including clarifying and enhancing policies as well as developing green standards.	Consider mentioning in Annex 3, Result 1 (i) and (h) the co-benefits, or cumulative effects when it comes to green infrastructure and low impact development. Implementing these initiatives can also help manage the effects of climate change by mitigating the effects of intense storm events through reduction in stormwater flows.
Annex 3: Wastewater & Stormwater	Ontario will: 1 (j) Support studies that improve understanding of the correlation between phosphorus load reduction and high uptake of green infrastructure and low impact development; 1 (k) Conduct a review of the Province's approach to rural stormwater and agricultural drainage management using an integrated watershed approach. 1 (l) Further explore septic systems as a source of nutrient contamination to Great Lake surface waters via groundwater and preferential pathways.	This work should complement and align to existing robust and science-based Drinking Water Source Protection plans. These plans identify action required that links to proposed efforts in this agreement.

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Annex 3: Wastewater & Stormwater	Canada and Ontario will: 2 (c) Undertake projects to sample effluent from wastewater treatment plants within the Great Lakes basin which may be used to better understand concentrations of contaminants entering the Great Lakes; provide baseline data to evaluate future control measures; 2 (g) recommend an additional commitment to encourage the federal government to continue to develop the tool/Guide for the Management of Salt Vulnerable Areas and work with municipalities to utilize the tool. 2 (l)Develop communication tools to provide more information to the public about septic systems and contamination of drinking water wells, to protect public health and reduce potential impacts to Great Lakes water quality; 2(o) Build on existing, drinking water source protection activities to ensure that environmental impacts to the Great Lakes	This work should complement and align to existing robust and science-based Drinking Water Source Protection plans. These plans identify action required that links to proposed efforts in this agreement.

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Annex 3: Wastewater & Stormwater	ecosystem from road salt use are minimized; (q) Assess pathways for road salt into groundwater, impacts of road salt use on groundwater, and groundwater as a source for salt contamination to surface water bodies and aquatic ecosystems.	
	2(e) Canada will continue to enforce effluent quality standards and wastewater system monitoring and reporting requirements under the *Wastewater Systems Effluent Regulations, 2012.*	Include a result about continued efforts to streamline the reporting process through one-window-reporting through Ontario (SAC) to further reduce the administrative burden on municipalities.
	2(g) Canada will work with road organizations, municipalities, conservation authorities and other partners to promote salt application best management practices for road organizations subject to Canada's Code of Practice for the Environmental Management of Road Salts.	The federal government should work with road organizations which do not already have Salt Management Plans and who are not reporting annually to Environment Canada, to help educate them on possible ways to reduce salt on their roadways and ways to implement best practices in a small community operation. Most of the larger municipalities are already utilizing best practices in their winter operations, and report annually.
	2(i) Ontario will update Ontario wastewater policies and develop a new stormwater management policy, including policies specific to treatment	It is recommended that the province work collaboratively with municipalities to ensure the new and updated policies both enhance environmental protection and maximize operational efficiencies by aligning them with existing guidelines and policies.

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Annex 3: Wastewater & Stormwater	requirements, sewage overflows and bypasses, to enhance environmental protection and reduce pathogens and contaminants in effluents.	
	2(k) Work with Ontario will municipalities and other stakeholders to undertake monitoring of the performance and effectiveness of stormwater and green infrastructure, and publicly communicate the results, including any co-benefits for pathogen and contaminant reductions;	The province is also encouraged to make public reductions in "stormwater flows" and "flooding". Reporting on these would illustrate the many benefits of these types of infrastructure and tie pieces of this document together.
	2(p) Ontario will work with municipalities, conservation authorities, private sector and other partners to promote salt application best management practices, certification and alternatives for both public and private salt applicators, including on private roads, sidewalks and parking lots;	More emphasis must be put on the government to work with private sector to educate them on salt usage, particularly winter contractors that maintain parking lots and walkways. Municipalities follow best practices and have the Minimum Maintenance Standards to help with liability. Private contractors do not have anything to guide them or help with liability, so they often over salt to avoid being held responsible for slip and falls. Include best practice management recommendations to help with liability protection for accredited contract companies doing winter maintenance.

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Annex 6: Lakewide Management	1 (b) Canada will lead, with Ontario's support: Identification of research, monitoring and other science priorities for the assessment of current and future potential threats to water quality and lake ecosystem health, including climate change, and for the identification of priorities to support management actions; 5 – Potential risks to the Great Lakes as a source of safe drinking water are identified and assessed, and early actions to manage risks are undertaken.	It is unclear what impact this work will have on source protection and existing policies. Monitoring and reporting will however require more resources and time to implement.
	5(c) Ontario will identify sensitive areas and mitigate risks to drinking water;	The vulnerable areas have been identified for Lake Ontario (IPZs). It is presumed that findings for some of the commitments of this agreement (research, studies and investigations) may result in changes or updates to the areas more susceptible to identified impacts.
	5 (d) Ontario will provide available datasets, studies and expertise to support the identification and assessment of issues and threats to drinking water sources;	Considering the current position of Ontario on reporting or sharing of datasets and information specific to wastewater overflow and bypasses, we look forward to the execution of the agreement and the sharing of datasets.
Annex 8: Habitat and Species	3 (g) Canada and Ontario will Strengthen the long-term protection of biodiversity and restoration of	Protection should be focused on natural features that provide high levels of ecosystem services over the short and long term but are more vulnerable to climate change, especially in urban areas where such services are needed more.

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	ecosystems through a network of aquatic and terrestrial protected areas;	
	3 (h) Canada and Ontario will undertake and support research, monitoring and reporting on the status, use and value of Great Lakes natural resources focusing on native fish, aquatic dependent wildlife, aquatic food webs and habitats.	Research, monitoring and reporting programs should incorporate a climate change lens. This ensures that known vulnerabilities are tracked using appropriate metrics at appropriate temporal and spatial scales, or adaptation action effectiveness is evaluated and reported in a cycle that supports a meaningful adaptive learning process.
	3 (i) Canada and Ontario will: Undertake and support studies that investigate the functions and ecosystem services of wetlands including hydrology, water quality and quantity, phosphorus reduction capabilities, carbon sequestration, and fish and wildlife habitat.	Available expertise, experience, and capacity through broader networks can be leveraged to accelerate long-term impacts and avoid duplication of efforts. As the Region has a substantial amount of information related to vulnerabilities within our geographic boundary, we would welcome sharing this information with the Provincial and Federal governments.
Annex 9: Groundwater Quality	2(b): Ontario will, with Canada's support: Undertake and promote monitoring and research to improve understanding of groundwater influences on Great Lakes water quality and ecosystem health.	The expected increase in extreme weather events, drought, algae formation and flooding will lead to increased water demand creating increased pressure on existing infrastructure, loss of potable groundwater supplies and degradation of surface water quality resulting in increased risks to public health. The development of climate resilient infrastructure will enable municipalities to provide safe drinking water for future generations in a changing environment. There is a need for sustained investments from all levels of government to adapt and mitigate future impacts.

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Annex 10: Climate Change Impacts and Resilience	4 (b) Canada and Ontario will explore opportunities to help Great Lakes communities consider climate change impacts including, but not limited to, shoreline erosion, drought, and flooding, to Great Lakes water quality and ecosystem health, as part of community adaptation planning and initiatives to build community resilience;	The Province could enhance these efforts by recognizing the role of the Provincial land use planning policy framework and the corresponding role of municipalities in implementing integrated system approaches for natural heritage, water resource and climate planning in land use policy. Consider incorporation of green infrastructure and LID in Annex 10.
Annex 11: From Awareness to Action	1 (f) Ontario will: Encourage and support community projects that take action to help restore, protect, conserve and experience the Great Lakes, including projects that tackle specific issues such as building climate resiliency, tackling plastic pollution and litter clean-ups, reducing excess road salt, reducing harmful algae, and other issues.	Encourage research pertaining to road salt usage, impacts and new technologies to avoid overuse of salt products. Enhance education and outreach to general public and business on how salt is used, alternatives and impact of salt on the water systems. Work with and support Conservation Authorities or other groups who are already trying to promote use of less salt.