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Re: Draft Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health,2020

Introduction and Overview

In the late 1800's cottagers discovered the eastern and northern shores of Georgian Bay. The transition from commercial operations to recreational began. At first the area was accessible only by water during the relatively calm summer weather, then as trains began to run across the country in the late 1800s more people began to discover the appeal of Northern Ontario. The construction of the King's highway in the late 1930s and the highway 400 expansion in the 1970s opened the remote landscape to the entire Country. Today, recreational activities are the economic engine of the Archipelago bringing in over a million visitors to the eastern and northern shores of Georgian Bay every year.

Thanks to the remoteness and limited agricultural lands the eastern and northern shores of Georgian Bay has remained a semi-wilderness area rich in Crown Land, Conservation Reserves and Provincial Parks. Georgian Bay is a unique body of water, the largest freshwater archipelago in the world that provides critical habitat to many endangered species.

The citizens along the eastern shore of Georgian Bay are very proactive through a variety of organizations to help ensure the continued health and wellbeing of the Georgian Bay shoreline and its watershed areas. Below are the organizations that have taken a leading role in protecting Georgian Bay.









Georgian Bay Land Trust

Founded in 1991, the Georgian Bay Land Trust acts to protect wilderness lands and species along the eastern shore of Georgian Bay and the North Channel and its near watershed, through strategic conservation planning, land securement, stewardship, research, and education. An eastern Georgian Bay and North Channel whose islands, shores, and inland watersheds are connected and strengthened by a network of protected natural lands and habitats, where native species thrive, and people interact with the natural world.

Georgian Bay Association

Founded in 1916, the Georgian Bay Association (GBA) is an umbrella advocacy organization for 19 community associations along the east and north shores of Georgian Bay, representing around 3,000 families and reaching around 18,000 residents of the Georgian Bay through its communications and publications. GBA's mandate is to work with its water-based communities and other stakeholders to ensure the careful stewardship of the greater Georgian Bay environment.

Georgian Bay Forever

Founded in 1995, Georgian Bay Forever (GBF) is a charity dedicated to scientific research and public education on Georgian Bay's aquatic ecosystem. The GBF's mission is to protect, enhance, and restore the aquatic ecosystem of Georgian Bay by funding accredited research on water levels, water quality, and ecosystems; by educating the public and governments on issues regarding the environmental protection, conservation, the safety and preservation of the water and the natural features of the Georgian Bay area of Ontario; and by enhancing the public's appreciation for their environment.

In a spirit of cooperation and collaboration we have worked together reviewing the draft agreement and we respectfully request the following additions be made to the Draft Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, 2020.









Request Statement

Please add the following to the designate sections:

- 1. AND WHEREAS the Parties recognize the unique environmental importance and environmental sensitivity of the eastern and northern shores of Georgian Bay as critical habitat for species at risk, including the Township of The Archipelago as part of the Georgian Bay Biosphere Reserve;
- 2. AND WHEREAS the Parties recognize prevention is easier and more cost effective than recovery by enhancing focus on prevention through acknowledging areas, such as the eastern and northern coast of Georgian Bay, which are in largely intact states providing innumerable and relatively inexpensive ecological value;
- 3. AND WHEREAS the Parties acknowledge the role of The Georgian Bay Biosphere Reserve, Georgian Bay Forever, Georgian Bay Land Trust, The Georgian Bay Association, The Township of The Archipelago and its partners in the protection, preservation, remediation and restoration of the natural environment of the eastern and northern shores of Georgian Bay;
- 4. AND WHEREAS the Parties acknowledge that Ontario has four UNESCO designated Biosphere Reserves all situated on the shores of Great Lakes and all with a mandate for biodiversity conservation (balanced with economic and community vibrancy, in concert with Indigenous partnership and engagement. All these designations are supported by and in turn work to develop and strengthen partnerships;
- 5. AND WHEREAS the Parties recognize the need to strengthen efforts to address new and continuing threats to Great Lakes water quality and ecosystem health, including aquatic invasive species, excessive nutrients, harmful pollutants, discharges from vessels, climate change, and the loss of habitats and species;
- 6. AND WHEREAS the Parties recognize that science is the basis for shared understanding of chemical, physical and biological integrity of the waters of the Great Lakes, and for ensuring effective decision-making and action in respect of the Great Lakes.









ARTICLES - Article I – Definitions.

Recognize Georgian Bay as a distinct body of water, shoreline and watershed in the definitions section by adding Georgian Bay to the Great Lakes. "(e) "Great Lakes" means the waters of Lakes Superior, Huron, Michigan, Erie, Ontario and Georgian Bay...."

PRIORITY – Protecting Waters

ANNEX 1 – Nutrients

Amend second paragraph

"...changes in agricultural production systems, open net cage aquaculture operations, increased..."

ANNEX 1 – Nutrients – Result 5

Sturgeon Bay in Georgian Bay has experienced debilitating algal blooms as well. Therefore, all Great Lakes need emphasis. Amend Result 5 opening paragraph. "...algal blooms and hypoxia in all of the Great Lakes."

ANNEX 1 – Nutrients – Result 5

Amend paragraph (i).

"Improve knowledge and understanding of the causal relationships between factors such as duration, intensity, frequency and timing of storms; aquatic invasive species; land use and management; open net cage aquaculture operations; hydrological processes..."

ANNEX 2 – Harmful Pollutants – Result 2

Amend paragraph (f).

"...enforcement actions as appropriate, including increasing penalties and fines to industry to ensure that the cost of non-compliance substantially exceeds the costs savings from continuing to pollute;"

Amend paragraph (g)

"...approaches and best practices. This should include development of implementation guidelines to support industry compliance with regulations and recognized standards. Financial incentives to support the development and implementation of innovative approaches and best practices should also be considered."









ANNEX 2 - Harmful Pollutants - Result 2

Add paragraph (q) to Ontario will:

"In consultation with Canada, increase penalties and fines for failure to comply with Ontario laws and regulations regarding pollutants, to ensure that the cost of non-compliance substantially exceeds the costs savings from continuing to pollute. Ontario should also consider providing financial incentives to support the development and implementation of innovative approaches and best practices."

Add paragraph (r) to Ontario will:

"Recognize and support the Georgian Bay Forever project to capture microplastics in Parry Sound."

ANNEX 3 – Wastewater and Stormwater

Add after paragraph four "...including wastewater and stormwater systems" "Climate change is not only exacerbating the adverse effects of pollution, climate change is also increasing precipitation intensity and directly increasing the presence of pollution especially related to raw and partially treated sewage discharges into the Great Lakes due to aging combined sewage and storm water systems. Substantial and specific commitments must be made to enable municipal waste and storm water system upgrades and replacements in addition to green infrastructure investments."

ANNEX 3 – Wastewater and Stormwater – Result 1

Add paragraph (m) to Ontario will:

"Coordinate to ensure that municipalities are able to improve their infrastructure to eliminate stormwater and wastewater overflows, by identifying and implementing the optimum method of addressing the improvements and investments needed, and providing program support to meet the costs of such improvements."

ANNEX 3 – Wastewater and Stormwater – Result 2

Add paragraph (s) to Ontario will:

"Introduce regulations to oblige owners of rural domestic septic systems to inspect and maintain or replace their systems to enhance environmental protection and eliminate pathogens and contaminants in effluents being discharged from these systems."









PRIORITY – Improving Coastal Areas

ANNEX 6 – Lakewide Management – Result 1 Amend paragraph (a).

"...Canadian Great Lake its tributaries, wetlands and connecting channels including current and future potential threats and trends; rivers and streams flowing into all the Great Lakes pose current and potential future threats to water quality and therefore these tributaries should also be assessed by LAMPS. Georgian Bay in particular needs an updated analysis of the contribution of tributaries to the near shore of the eastern and northern shorelines - specifically analysis of phosphorus, nitrogen & nutrients."

Add paragraph (g).

"Both Canada and Ontario will ensure that the resources required to fulfil all the LAMP requirements under the Agreement on a timely basis are sufficient."

ANNEX 6 - Lakewide Management - Result 4

Amend paragraph (c). Include Biosphere Reserves in Lakewide management, the paragraph should be amended to also refer to include Biosphere Reserves.

"iv. The Niagara Escarpment Biosphere Reserve and Georgian Bay Biosphere Reserve designations and initiatives."

PRIORITY - Protecting Habitat and Species

ANNEX 8 – Habitat and Species

Amend paragraph one.

"The Great Lakes and their basins support a rich diversity of fish, wildlife and plant species. Thriving habitats and native fish and wildlife communities contribute to the social and economic vitality of the Great Lakes region. UNESCO Biospheres on the Great Lakes are areas officially recognized as important for world biodiversity. These regions include nearshore and inland habitats, inland wetlands and riparian zones all of which play a critical role in Great Lakes ecosystem health."

Add after to paragraph one "...abundance of native species."

"High-quality habitats nurture and improve species survival, 90% of life-forms live at or near the interface of land and water. Eastern Georgian Bay has the world's largest freshwater land-water interface (5300 km). When considering conservation actions on the Great Lakes one cannot exclude water from land or









vice versa."

ANNEX 8 – Habitat and Species Amend paragraph two.

"...make up the Great Lakes aquatic and terrestrial ecosystems..."

Add after paragraph four "...as it pertains to habitat and species."

"Aquatic invasive species Phragmites Australis is very destructive to wetlands and habitats. It is in the early phase of establishment within the Great Lakes and should therefore be a priority invasive species to eradicate. Rapid detection and eradication efforts will be far more cost effective than delayed efforts and postponing activities will squander previous investments and efforts.

Coordinated efforts throughout the basin must be undertaken, including treating vector pathways such as provincial highways and roads throughout the region, and must be funded for eradication to be effective."

ANNEX 8 – Habitat and Species – Result 1 Amend opening paragraph.

"...native species and habitats are identified. High quality connected habitats at the regional level are necessary to protect against continuing species loss and to provide optimal resilience against climate change effects, including drought (inland wetlands and their connectivity) intact riparian zones (flooding)."

ANNEX 8 - Habitat and Species - Result 1

Amend paragraph (a). "Continue to undertake a baseline habitat survey of coastal and inland wetlands, and the terrestrial areas of their basins to guide sustainable..."

Amend paragraph (b). "Determine priority terrestrial and aquatic habitats in..."

Add paragraph: "(c) Recognizes the importance of the conditions in the watersheds in addition to high quality habitats in the offshore and near shore areas."

ANNEX 8 – Habitat and Species – Result 1

Add paragraph: (d) Fund the complete genetic inventory of all organisms in the Great Lakes region to determine present baseline biodiversity and relative abundance to facilitate future impacts and identify sentinel species and bio-









tracers within systems that can be used as early indicators of ecological stress allowing adaptive management processes to be effective. DNA barcodes use a fragment of an organism's DNA to identify the taxonomic group to which an organism belongs."

Add paragraph: "(e) Ontario will create, maintain and provide access to a digital, Geographic Information System (GIS) referenced data repository for all Great Lakes and related science information including data and reports to allow decision makers direct and easy access to the best available information to facilitate ongoing adaptive management, legislative and regulatory processes and allow the public a transparency into the science information."

Add paragraph: "(f) Ontario will create a Natural Heritage mapping for Great Lakes Basins that delineate a mosaic of Naturally Connected Habitats for protection."

ANNEX 8 – Habitat and Species – Result 2

Amend Result 2 "An improved understanding and assessment of shifting ecosystem structure and function in light of climate-related vulnerabilities, invasive species and resilience of Great Lakes coastal wetlands"

Amend (a) "Complete a science-based assessment of the complex vulnerability of inland wetlands, near-coastal wetlands and coastal wetlands that are all vulnerable to climate related impacts:"

ANNEX 8 – Habitat and Species – Result 3

Amend (d) "... native species conservation and support priority actions to maintain, restore and/or improve connectivity within Great Lakes coastal terrestrial and inland wetland habitats"

Amend (g) "Strengthen the long-term protection of biodiversity and restoration of ecosystems through a network of aquatic and terrestrial protected areas and reviewing and establishing land use planning and management approaches;"

ANNEX 8 – Habitat and Species – Result 3

Add after paragraph (i)

"Recognize and support the identification and eradication of phragmites" and "Recognize the unique wetlands of the eastern Georgian Bay coast and support research, monitoring and restoration of eastern Georgian Bay wetlands"

PRIORITY – Engaging Communities – From Awareness to Action









ANNEX 11 – From Awareness to Action – Result 1 - Ontario will:

Add "(i) Recognize the Biosphere Reserves in Ontario and their efforts to help inform, educate, facilitate and support conservation and sustainability."

Add "(j) Partner with municipalities, nonprofit organizations, ratepayer/cottager associations and conservation authorities to leverage their direct contact and concerted expertise in engaging and educating Great Lakes communities."

Thank you for the opportunity to provide our feedback on the Draft Canada-Ontario Agreement on Great Lakes Water Quality and Ecosystem Health, 2020. Georgian Bay would not be the same without quality water and a healthy ecosystem.

Sincerely,

Bert Liverance Bill Lougheed David Sweetnam Rupert Kindersley Reeve, Executive Director, Executive Director, Executive Director, township of Georgian Bay Georgian Bay Georgian Bay The Archipelago Land Trust Forever Association

CC: Minister of Municipal Affair – The Honourable Steven Clark MPP Norm Miller