June 1, 2026

Members, Great Lakes Executive Committee
c/o GLEC Co-chairs Véronique Hiriart-Baer and Teresa Seidel

Dear Mss. Hiriart-Baer and Seidel,

RE: Improving Physical Integrity and Watershed Security
Under the Great Lakes Water Quality Agreement

The Great Lakes Water Quality Agreement is a visionary document in which Canada and the United States, the Parties to the Agreement, committed themselves to cooperate and collaborate to "restore and maintain the chemical, physical, and biological integrity of the Great Lakes basin ecosystem".

In spite of progress on chemical and biological integrity through bi-national and basin-wide activities under the Agreement, progress on physical integrity has been weak. Similarly, in spite of the description of the Great Lakes Basin Ecosystem in the Agreement, watershed security has received inadequate attention.

The 37 undersigned organizations therefore offer the enclosed recommendations to the Parties on how to better implement physical integrity and watershed security under the Agreement.

As you will recall, the Great Lakes Ecoregion Network, the Ontario Headwaters Institute, and Freshwater Future distributed a draft paper on physical integrity and watershed security at the Great Lakes Summit held in Chicago in February 2026.

We have since solicited comments from other organizations, both broadening and refining the original recommendations to GLEC in the attached position paper, whose co-signatories include national, regional, and local organizations from the environmental, business, and social justice communities, indicating the broad appeal for a healthy Great Lakes and St Laurence River Basin for future generations.

Our work, and that of the co-signatories, has been almost exclusively pro-bono. While the Ontario Headwaters Institute and the Great Lakes Ecoregion Network shared a small grant to facilitate consultation, we built the recommendations from our internal expertise and input from many of the signatories, but did not have exterior funding to conduct a detailed analysis of how our recommendations relate to the Annexes of the Agreement, nor to other admirable national, sub-national and local programs.

Financial and time constraints similarly did not allow for outreach to First Nations, tribes and Métis, municipalities, state and provincial-level agencies, academe, and other organizations throughout the basin, nor were we able to describe the more detailed work that will be needed to develop a plan to address the recommendations.

On the need to develop a plan and notwithstanding the constraints above, we are deeply interested in engaging with the Parties to the Agreement, GLEC members, and other interested organizations to flesh out the recommendations and participate in discussions to improve the physical integrity of and watershed security in the Great Lakes – either to enhance implementation as soon as possible and/or while working toward the next iteration of the Agreement.

We would appreciate a meeting with you on this topic, at your earliest convenience.

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Improving Physical Integrity and Watershed Security Under the Great Lakes Water Quality Agreement

Under the Great Lakes Water Quality Agreement (2012), the Canadian and United States governments "reaffirmed their determination to protect, restore, and enhance of the water quality of the Waters of the Great Lakes and their intention to prevent further pollution and degradation of the Great Lakes Basin Ecosystem".

The Agreement further describes the Great Lakes Basin Ecosystem as "the interacting components of air, land, water and living organisms, including humans, and all of the streams, rivers, lakes, and other bodies of water, including groundwater, that are in the drainage basin of the Great Lakes and the St. Lawrence River at the international boundary or upstream from the point at which this river becomes the international boundary between Canada and the United States".

To date, key bi-national accomplishments have focused on the chemical and biological integrity of the Great Lakes. These include work to remediate polluted areas of concern, efforts to reduce toxic substances, phosphorus, nutrients, and non-native invasive plants and animals, and more. Unfortunately, efforts on physical integrity and watershed security – protecting regional ecological integrity, social well-being, and economic vitality - have lagged behind.

The absence of progress on physical integrity and watershed security ignores a significant portion of the physical fabric that defines the health and resilience of the Great Lakes ecosystem.

From the perspective of physical integrity, we need to focus on allowing the waters of the Great Lakes and their tributaries to retain their natural flows that should be neither diminished nor inundated by poor development and stewardship practices. These practices can fragment forests, drain wetlands, establish in-stream barriers, straighten watercourses and harden shorelines, or require repeated dredging, each of which can aggravate drought, flooding, or the spread of sediment and pollutants.

The other side of this coin is watershed security, where we need to protect water for drinking and other purposes while promoting natural heritage, biodiversity, recreation, and the responsible use of renewable resources such as sustainable agriculture and forestry. These are not only of fundamental importance to all living creature but can form the basis of nature-based solutions to address the twin biodiversity and climate crises and their emerging outcomes.

As each of these activities can impact regional biodiversity, storm-water and sanitary flow, and increase numerous types of pollution, improving the delivery of physical integrity and watershed security will have co-benefits for the biological and chemical integrity of the Great Lakes-St. Lawrence Basin.

Many of these issues were described in the State of the Great Lakes Report, 2025, with contributions from more than 200 government and non-government scientists and experts. On the topic of changes in the physical condition of the lakes, the report concluded that the status is "undetermined". On the issue of whether the status was improving or not, the report said that they had insufficient data to make an overall assessment.

Each conclusion is a stark omission. Given on-going increases in population and development, however, as well as the projected impacts of a changing climate in the Great Lakes basin, they are also a clarion call that the Parties to the Agreement must do more on physical integrity and watershed security. We must no longer ignore the impacts of land use planning and development decisions on the health of the Great Lakes ecosystem.

In addition, we note that between 1985 and 2019, the governments spent over 22 billion USD on cleaning up Areas of Concern or toxic hot spots, while the people of the basin have spent countless volunteer hours to clean up the Great Lakes. If we don't pay serious attention to physical integrity and watershed security, in addition to chemical and biological integrity, that investment will be wasted and more expense will be incurred.

As a result, the signatories below support this set of recommendations on physical integrity and watershed security as a way for the Parties to improve the implementation of the Agreement, particularly through Annexes 2 – Lakewide Management; Annex 4 – Nutrients; Annex 7- Habitats and Species; Annex 8 – Groundwater; Annex 9 – Climate Impacts; and Anne 10 – Science.

Recommendations on Physical Integrity and Watershed Security

1. Establish goals and guiding principles to better protect physical integrity and watershed security, address policy and implementation gaps, and prevent future problems. These goals and principles should be based on existing aspects of the GLWQA such as prevention and the precautionary principle. Specific suggestions for discussion include:
    a. Adopting goals and guidelines to address in-stream barriers to native fish migration and to other threats to fish communities, as well as thermal loading caused by discharges from on-shore facilities;
    b. Developing guidelines to minimize the adverse impacts of dredging. While dredging in polluted areas may impact the chemical integrity of the Lakes, dredging anywhere may adversely affect physical integrity and watershed security by altering local habitat and water temperature, by distributing sediment to reduce water depth and cover or remove key habitat, and may alter flows to downstream water resulting in reduced water levels, and/or flooding.

2. Craft an overall strategic policy framework, in cooperation with planning authorities, watershed management agencies, etc., to ensure that local land use and watershed planning are consistent with the needs and goals of the entire Great Lakes basin. This could include:
    a. Establishing basin-wide guidelines, such as those in Canada's "How Much Habitat is Enough", for the retention of key ecological features in a watershed, such as for areas of natural heritage, wetlands, and streamside vegetation, and develop restoration plans where minimum goals have not been attained;
    a. Advocating for a whole-watershed approach, seeking the retention of historic base flows of clean water entering a municipality from upstream areas while assuring the same for downstream communities;
    b. Requiring current condition or base-line reports to identify, protect, and restore key ecological features and functions, including agricultural lands, to help maintain regional ecological integrity and food security;
    c. Reaffirming a pollution prevention approach to permitting in order to prevent hazardous materials from entering municipal operations with direct impact on water quality, such as storm-water runoff, effluent from sewage treatment plants and landfills, and anti-and de-icing practices;
    d. Promoting and using design approaches focused on natural asset management, renewable resources, innovation, green development standards, and minimizing ecological foot prints for planning, transportation, energy infrastructure, and buildings, etc.; and,
    e. Requiring before and after terrestrial and aquatic monitoring of development and applying adaptive management where the Great Lakes-wide goals have not been met while always striving to achieve the basin-wide goals.

3. Increase commitments in the Agreement for the protection and restoration of natural shorelines and flows, vegetated buffer zones, and coastal wetlands. These should focus on nature-based solutions.

4. Ensure that studies and recommendations on climate change take into account effects from occurring and predicted climate change including the range of impacts on the Basin and that they support nature-based solutions to maintain both physical integrity and watershed security of the Basin and Lakes. Examples include the loss or destruction of inland habitat needed for aquatic and terrestrial biodiversity across the region, changes in ice cover or other aspects of altered phenology, and the destruction of shorelines by extreme weather events.

5. Build on successful, established programs for education and dissemination and develop and ensure the delivery of enhanced outreach and educational programs for physical integrity and watershed security as well as encourage improved stewardship by the residents in the Great Lakes Basin on both public and private lands.

6. Allocate the resources necessary to create an inventory of national and sub-national initiatives on physical integrity and watershed security to identify policy and program gaps as well as best practices. This could include providing assistance from the federal governments to help local authorities achieve the basin-wide integrity goals. The federal governments could help guide this effort by providing relevant research and resources, including financial support.

As stated above, we are deeply interested in engaging with the Parties to the Agreement, GLEC members, and other interested organizations to flesh out the recommendations and participate in discussions to improve the physical integrity of and watershed security in the Great Lakes basin - both to enhance implementation as soon as possible and work toward integrating these recommendations in the next iteration of the Agreement.

Please contact either of us as below to discuss this further at your convenience.

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Co-signatories (Contact information can be provided upon request.)

Organization	Name	Position
10,000 Trees for the Rouge	Robert Roszell	Chair
Ambioterra	Stéphane Gingras	Geographer, Geomorphologist
Beaver River Watershed Initiative	Andy McKee / Brad Mulligan	Chair / Projects Chair
Beaver Valley Destination Stewardship	Stacie Howe	Community Connector
Benedictine Sisters, Erie PA	Pat Lupo, OSB	Envir & Advocacy Lead
Between the Waters	Peggy Ann Berry	Executive Director
Biodiversity and Climate Action Collective Niagara	Liz Benneian	Chair
Canadian Environmental Law Association	Fe de Leon	Snr Researcher and Paralegal
Citizens Environment Alliance of SW'ern Ontario	Derek Coronado	Executive Director
Citizens for Safe Ground Water	Samantha Lernout	President
Council of Canadians	Marilyn Hay	Chair, Waterloo-Kitchener
Democracy Caledon	Debbe Crandall	President
Environment North	Graham Saunders	President
Escarpment Corridor Alliance	Jarvis Strong	Executive Director
Friends of the St. Clair River	Sheri J. Faust	Executive Director
Freshwater Future	Jill Ryan	Executive Director
Georgian Bay Forever	David Sweetnam	ED and Georgian Baykeeper
Grand River Environmental Network	Kevin Thomason	Vice-chair
Grey Highlands Climate Action Group	Joyce Hall	Co-chair
Izaak Walton League of America - Great Lakes	Rick Graham	Chair, National GL Committee
Lake Superior Watershed Conservancy	Joanie McGuffin	Executive Director
Mono Mulmur Citizens' Coalition	Don MacFarlane	President
National Council of Women of Canada	Penny Rankin	President
National Farmers Union – Ontario	Josh Suppan	President
Our Water, Our Air, Our Rights	Russell Taylor	Spokesperson
Oxford Coalition for Social Justice	Bryan Smith	Chair
Pennsylvania Lake Erie Watershed Association	Sarah Peelman	Chair
Save the Oak Ridges Moraine Coalition	Robert Brown	Co-chair
Simcoe County Greenbelt Coalition	Margaret Prophet	Chair
The Land Between	Leora Berman	Founder and COO
The Western New York Environmental Alliance	Anna Castonguay	Co-Chair
Topax Protective Packaging	Jo-Lynn Hoffmann	Chief Executive Officer
Wallaceburg Advisory Team for a Cleaner Habitat	Kristina Lee	Secretary
West Credit River Watch	Ann Seymour	Director
York Region Environmental Alliance	Gloria Marsh	Executive Director