



GREAT LAKES
ECOREGION NETWORK

RÉSEAU ÉCORÉGIONAL DES
GRANDS LACS
ET DU SAINT-LAURENT

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Véronique Hiriart-Baer
Canadian Great Lakes Executive Co-Chair
Director General Freshwater Management
Canada Water Agency

Teresa Seidel
U.S. Great Lakes Executive Co-Chair
Director, U.S. Environmental Protection
Agency

Suggestions for Great Lakes Water Quality Agreement (“GLWQA”) Issues Review

Dear Great Lakes Executive (GLEC) Co-Chairs,

As you begin this review, the Great Lakes Ecoregion Network (GLEN)¹ is submitting this letter, with our preliminary list of topics and issues that we recommend be included in the review of the 2012 GLWQA. We will provide detail on the issues and on proposed solutions as GLEC goes through their process. On July 11, we sent you a letter outlining our proposals for the *process* to carry out the review.

In 2022, GLEN released a report entitled “The Great Lakes Water Quality Agreement at Fifty”.² This report assessed the accomplishments of the Agreement, the limitations related to the Agreement, and our aspirations and opportunities for the future. This report is the basis for

¹ The Great Lakes Ecoregion Network (GLEN) works to empower public constituencies across the Great Lakes and St. Lawrence Basins to drive transformational strategies and actions that will safeguard and restore the health and resilience of the Great Lakes and St. Lawrence ecoregions. Our mission is to be a transboundary advocate, an ecoregional community “think tank”, a constituency builder, and a knowledge network.

² https://www.greatlakesecoregion.org/_files/ugd/a19df9_ba0a64723a3541a1bb51e527fa17ecde.pdf

what we think needs to be addressed during the current review of the Agreement and its implementation.

Many of our most active members have been involved in GLWQA programs for decades and continue to be involved today. This involves working on a wide range of GLWQA issues, such as: Areas of Concern, toxic substances, nutrients, invasive species, climate change, habitat and agriculture, membership in GLEC annex sub-committees, and participation on IJC boards. We are also an official GLEC Observer.

We are people and organizations who work together throughout the Great Lakes and St. Lawrence River basin on these and other issues at the basin-wide, regional and local levels. We bring energy and determination to this work, as well as public and political support, which are essential if we are to achieve the goals of the GLWQA. See footnote for detail on GLEN.³

Preliminary List of Topics for Consideration during the GLWQA Review

Process, Parties, Justice, and Accountability

Indigenous role:

For the first time in the 2012 Agreement, in several instances, the Parties recognized the Indigenous people with the following phrase: “the Parties, in cooperation and consultation with State and Provincial Governments, Tribal Governments, First Nations, Métis, Municipal Governments, watershed management agencies, other local public agencies, and the Public.” However, this phrase does not acknowledge the necessary special engagement of the Indigenous governments as rights-holders.

- We recommend that the review process explore ways the Agreement could be changed to more appropriately recognize and include the special rights of the Indigenous governments, and further recommend that the Parties and their advisory bodies develop a recommendation for new language and provisions that will increase representation, intentional inclusion, active engagement, and respect for traditional ecological knowledge.
- To go even further, the Agreement could be revised to be an Agreement where Indigenous nations are Parties to the Agreement.

Principles & Approaches (GLWQA Article 2, Part 4):

The principles and approaches in Article 2, Part 4 are supposed to “guide” the government actions. Yet this guidance is rarely referred to or embodied in the daily implementation of the Agreement by responsible agencies in the respective nations.

³ <https://www.greatlakescoregion.org/>

- We recommend more explicit guidelines —to ensure that the principles and approaches truly guide daily decision-making and management practices. These could include guidelines for implementation of each principle, mandates, benchmarks and timelines, (including assessment of progress and performance evaluations), conditional language in permits, grants and public funding.
- In addition, we recommend developing principles, approaches, and benchmarks related to broader aspirations e.g., environmental justice, ecological resilience, regenerative capacity, etc.

Environmental Justice:

Both Canada and the United States have made commitments to include environmental justice considerations in their actions. This commitment has not yet been applied to the GLWQA. Also the commitments are limited in how they consider environmental justice.

Therefore, the GLWQA must be amended to include the overarching goal of environmental justice. In addition to adding this to the principles and approaches in Article 2, an annex should be added specifying actions to be taken to achieve environmental justice.

Environmental injustices are partially the product of disproportionate exposure to environmental degradation and health issues, etc. in some communities. It is also environmental injustice if some communities lack the opportunity to enjoy living in thriving natural environmental areas with all the health and inspirational benefits that such a situation brings to a community.

Environmental injustice is a problem of inequality – in this context especially unequal distribution of power in decision-making. To achieve environmental justice, we must go beyond looking at who benefits from the actions to looking at who designs and controls the programs and decision-making. It is not good enough to consult with the underserved and underrepresented communities. Members of these communities (chosen by the communities) must be involved in the very beginning stages of a program to determine what the community needs are, to explore the options for solving the problem and to implement the solutions. This means that we must recognize that we have much to learn from people's lived experiences and recognize that they bring essential wisdom to the table that results in much better, more appropriate solutions. It also means listening and learning with respect.

Critically important to making this work is to provide communities suffering from environmental injustice with the resources to explore the issues, to direct the studies themselves, to choose the expert advisors they may need to carry out studies, etc. and to cover the time of those working on the project, as well as their expenses. Achieving environmental justice also means that the power to make the final decision on local actions should rest with the underrepresented.

Public Engagement

The GLWQA can only achieve its potential if it has the energy, the insights and wisdom, and the creativity and determination of the involved public. The governments recognized this when they referred to “consultation with ... the Public ...” at numerous places in the 2012 GLWQA.

However, public consultation has failed to be true engagement because dialogue rarely goes on with the public. To effectively engage the public, the governments need the public to help design the Agreement, to help drive its implementation, to help monitor its progress, and to advocate for funding. The engaged public brings inestimable energy to this work. One example where this has been proven is the decades of volunteer work by community members on the clean-up of the Areas of Concern.

Public engagement will not achieve its potential unless the governments put the necessary resources into it. This needs to include funding engagement of the involved public.

Accountability mechanisms

One of the main frustrations with the GLWQA is that the accountability mechanisms in it are weak, leaving many to conclude that the agreement is merely symbolic. The triennial Public Forum meetings are not fulfilling the need for accountability. Provisions need to be added that require the governments to do more than submit reports and respond to IJC recommendations once every three years. This review should explore ways to improve accountability of the Parties in meeting specific goals, benchmarks and objectives. The review should explore ways to improve the existing accountability mechanisms as well as looking for new mechanisms.

For example, the governments could commit to prepare a responsiveness document; this document would respond to each point that the public made, saying what they heard, how they are addressing it the changes they plan to make, and, if they are not making changes as a result, state why they are not changing it. The Governments could also commit to hold regular parliamentary or congressional oversight committee hearings on GLWQA-related matters. These hearings should include not just all parties but also the involved public. And/or each government could commit to have an on-going advisory committee, e.g., the Great Lakes Advisory Board in the U.S. In addition, the Parties should consider expansion of enforceable mechanisms, or recommend expansion of the U.S. Great Lakes Critical Programs Act to include new mandates to meet Agreement goals and objectives. Enforceability is critical to the Agreement’s value and efficacy, and to rebuild public confidence in its value.

Institutions in GLWQA

This review should include an assessment of the operation of GLWQA institutions. For example, in what ways can the roles and operation of the Great Lakes Executive Committee be improved? Similar questions should be posed for the annex subcommittees and extended annex subcommittees, for the IJC and for the IJC boards and the mandates of

those boards. Are there additional structures that should be added? How can the opportunities for the engagement of the concerned public be improved well beyond the triennial public forum. Use of social media would broaden outreach to younger generations. Perhaps there could be a specific citizens' advisory board?

Environmental concerns

- **Physical Integrity:**

The purpose of the Agreement is “to restore and maintain the chemical, physical, and biological integrity of the Waters of the Great Lakes” [Article 2, item 1.] Most of the activities under the GLWQA have been focussed on chemical aspects, and increasingly, but still only in a limited way, biological integrity. We recommend a process in which the Parties develop a common definition of what we mean by physical integrity and identify needs, priorities and processes through which we can restore and maintain physical integrity in the Great Lakes and St. Lawrence watershed, coastal zones, shoreline areas, and benthic and underwater habitat.

Protecting, restoring and maintaining physical integrity (as well as biological and chemical) requires dealing with whole watersheds. It requires understanding and responding to how rivers and smaller streams, including intermittent streams that contribute approximately half the flow to rivers, work -- from headwater forests and groundwater to coastal wetlands. It requires moving away from traditional engineering “solutions” based on control, to actions that will encourage and allow the natural ecosystem to restore itself. It further requires acknowledging that voluntary controls for nutrient pollution and bacteria such as E. coli, are inadequate to protect water quality and habitat in major agricultural watersheds. Integrating these concepts within existing annexes, or establishing a new annex on Great Lakes watershed protection, are two options to consider. Canada and the U.S. have both endorsed the 30 by 30 goal of 30% protected land and water by 2030. As a policy for the Great Lakes and St. Lawrence watershed, this goal could help provide clarity and resources for coordinated programs.

- **Biological integrity:**

The GLWQA fails to address the biodiversity crises in the aquatic ecosystem and the inland watershed and its relationship to water quality, and yet biodiversity is a critical factor in ecological integrity, and thus water quality. Quagga mussels are now the dominant biomass in the Great Lakes. Great Lakes fishery investments remain focused on the sport fishery. We recommend a thorough analysis of opportunities to integrate biological diversity objectives into the Agreement, and to elevate the prime significance of native species when setting ecological goals and objectives in the Agreement and in setting indicators as measures of Great Lakes health and vitality.

To protect and enhance the physical and biological integrity of the Great Lakes and St. Lawrence River ecoregion, we must have strong integrated land use and watershed planning throughout the basin.

- **Protecting sources of drinking water:**

The Parties have aimed to achieve safe drinking water standards based on the quality of treated water sourced from the Great Lakes and St. Lawrence River, instead of protecting the quality of source waters prior to treatment. Cleaner source waters will better protect public health and reduce the level of treatment required (and thus costs) for municipal water systems. They will also protect aquatic life. We recommend that the review explore ways in which the GLWQA can be strengthened (including a new Annex) to better protect source waters for drinking supplies, and that future “state of the lakes and state of the Agreement” reports include source water assessments.

- **Climate Change:**

The current Agreement limits binational cooperation on climate change to the exchange of scientific information, but there is no binational coordinating body setting shared goals, principals or prescriptions for climate mitigation, adaptation or resilience in the basin. Given the scope and scale of the climate threat to human communities, water quality, lake levels, and physical, chemical and biological integrity, we recommend that the review include a process that identifies priority needs for coordination and collaboration, such as upstream watershed protection, shoreline protection, enhancement of pervious surfaces, stormwater management, and stormwater pollution infusion from extreme weather events. We further recommend that the Parties, the IJC, and other transboundary institutions engage in a process to establish a transboundary coordinating body, either as a mandate of the Agreement, or some other process.

- **Toxic Chemicals/Substances:**

Considerable effort has been put into toxic chemical issues under the Agreement, yet we are far from having achieved the Agreement objectives. Annex 3 needs a serious assessment and updating. Some of the questions that need to be assessed include:

- “Prevention, virtual elimination and zero discharge”. We are far from achieving these goals, which were supposed to be the driving goals of the GLWQA. The review should assess why this is so and determine ways to strengthen the prevention of release of toxic substances. Some questions to address:
 - Is zero discharge a strong enough target or should we also be emphasizing zero use?
 - How to prevent “regrettable substitution” of one toxic substance by another substance that ends up coming back to haunt us in the future?
 - Should the focus of these targets be expanded beyond the standard persistent toxic substances?

- Does the use of the phrase “chemicals of mutual concern” as the title for Annex 3 in the GLWQA inappropriately convey the impression that we are only concerned about chemicals – not substances such as micro-plastics and radionuclides?
- Are there substances that we need to put special attention on under the GLWQA provisions? Examples:
 - **PFAS:**

All individual PFAS are extremely persistent, or will transform into extremely persistent ones, that will remain in the environment for hundreds if not thousands of years. They are now widespread in the Great Lakes and St. Lawrence River and in all living beings. We must address the estimated 16,000 individual PFAS as a class (not individually). Failure to do so will mean that instead of seriously addressing the PFAS problem, we will fall further and further backwards as other PFAS are brought into use. Guidance should be put into the Agreement or a related document on source-reduction/prevention, binational agreement on common goals for health and safety standards, and guidance on optimal containment, destruction, and clean-up methods to prevent lake and drinking water contamination.
 - **Radionuclides:**

The IJC has declared high level radionuclides as being the most persistent and most toxic substances and declared that they should be subject to the zero discharge provisions of the GLWQA. Despite the presence of 38 nuclear reactors in the Great Lakes basin, and the current widespread discussion of expansion of nuclear power reactors, as well as other nuclear facilities and wastes throughout the basin, the governments have not included radionuclides in their GLWQA activities, and have not applied the GLWQA principles to radionuclides.
 - **Mining:**

Mining has long been a major source of contamination to the Great Lakes, especially in the Lake Superior Basin. There is an emerging mining boom as new high-tech industries expand, often calling for strategic and other metals that were previously not the focus of mining. This will increase the threats from mining on the Great Lakes.
 - **Microplastics:**

Microplastics are now being found throughout the Great Lakes and St. Lawrence River and in all forms of life in the Great Lakes basin. Scientific studies in the Great Lakes show that these substances are posing substantial risks for the well-being of life throughout the basin.

➤ **Mercury:**

Atmospheric deposition of global mercury sources continues to threaten Great Lakes and inland waters in the Great Lakes-St. Lawrence ecoregion. We urge the Parties to consider commitments in the Agreement to seek stronger international controls and source-prevention of mercury emissions through mechanisms such as the Minamata Convention. We also, of course, take more effective actions to eliminate the sources of mercury emissions from within the Great Lakes and St. Lawrence ecoregion.

➤ **Other Substances of Concern in the Great Lakes:**

Other substances that should be considered under the GLWQA include nanomaterials, pharmaceuticals, and pesticides.

The review of Annex 3 should acknowledge the public criticism of the “Chemicals of Mutual Concern” system, and determine what changes can be made to restore public confidence in the role of the Parties in identifying and advancing prevention and remedial action for serious threats to the Great Lakes from toxic substances:

- Are decisions being made in a timely manner under Annex 3 of the GLWQA?
- As the Annex operates now, will it ever be able to address the toxic threats to the Great Lakes?
- Are the Bi-National Strategies developed under this Annex truly looking at the needs of the Great Lakes and St. Lawrence River?
- Are the strategies focused on achieving the goals of the GLWQA of prevention, virtual elimination and zero discharge?
- How can the system be improved? Or is a transformation in the approach to toxics in this Annex needed?

● **Agricultural pollution:**

Current agricultural practices continue to be a major source of contamination to the Great Lakes and St. Lawrence basin. Existing U.S. and Canadian programs are not getting the job done, especially in the era of climate change. We need to shift strategies to tackle the root causes of the scale and kind of agricultural activities in the Basin. We urge the reviewers to consider new language in the GLWQA calling on the Parties to regulate agricultural sources, (such as CAFOs, manure management, land clearing, deforestation) of pollution (nutrients, bacteria/pathogens, and pesticides), and to set specific benchmarks for progress. A special annex could be considered for this subject.

Research & Science Annex 10:

The science priorities under the GLWQA are focused on remediation techniques, indicators and measures. They are not focused on research to help us better understand the complexity of the

Great Lakes system. We recommend that the review process include analysis on ways to broaden the focus to research that will increase understanding of the Great Lakes ecosystem and the implications of that science for actions needed now to protect the Great Lakes for the long-term, especially in the face of the climate and extinction crises. The Decadal Science Strategy released by the IJC in 2022⁴ provides baseline needs for science to better understand this complex and ever-changing system.

Conclusion

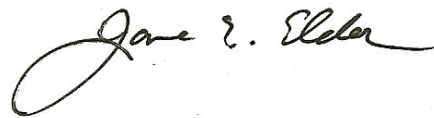
We must not take the Great Lakes and St. Lawrence River for granted. The GLWQA can have a critical role to play in protecting the Great Lakes by leading us to the future. The future requires forward-looking strategies, clear objectives, mechanisms to drive domestic compliance, and the support of the Parties in committing to, funding and implementing the actions that will safeguard the ecological integrity of the Great Lakes and St. Lawrence Basin and all their inhabitants. We must embrace precautionary and preventive strategies, regeneration and resilience and build benchmarks for progress and more accountability and meaningful public involvement.

We, the members of the Great Lakes Ecoregion Network, look forward to working with you to further explore these and other issues during the review of the GLWQA, using the principles just pointed out.

Yours sincerely,



GLEN Chair



GLEN Vice-Chair

⁴ <https://ijc.org/en/sab/GL-Science-Strategy>