

# **-HIGHLIGHTS REPORT-**

FIRST TRIENNIAL ASSESSMENT OF PROGRESS ON

# GREAT LAKES WATER QUALITY

INTERNATIONAL JOINT COMMISSION

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Prepared by  
The International Joint Commission Pursuant  
to Article 7 (1) (k) of the 2012 Great Lakes Water  
Quality Agreement

**NOVEMBER 28, 2017**



*“Environmental pollution  
is an incurable disease.  
It can only be prevented.”*

– Barry Commoner

Barry Commoner (1917-2012) was an American biologist, college professor and politician, and among the founders of the modern environmental movement.



## COMMISSIONERS

*Lana Pollack  
Gordon Walker  
Rich Moy  
Benoit Bouchard  
Richard Morgan*

**November 28, 2017**

*Please go to <http://ijc.org/files/tinymce/uploaded/GLWQA/TAP.pdf> to download the full Triennial Assessment of Progress report, to [http://ijc.org/files/tinymce/uploaded/GLWQA/TAP\\_TA.pdf](http://ijc.org/files/tinymce/uploaded/GLWQA/TAP_TA.pdf) to download the Technical Appendix, and to [http://ijc.org/files/tinymce/uploaded/GLWQA/TAP\\_PCA.pdf](http://ijc.org/files/tinymce/uploaded/GLWQA/TAP_PCA.pdf) to download the Summary of Public Comment Appendix.*

For the last 45 years, since Canada and the United States initially signed the [Great Lakes Water Quality Agreement \(GLWQA or Agreement\)](#), the governments of both great nations have recognized their responsibilities, as trustees of the lakes on behalf of their citizens, to protect, defend and restore the multiple values of these freshwater jewels. The GLWQA has evolved since 1972 to reflect a changing scientific understanding of the lakes, a growing binational relationship, and emerging challenges such as climate change.

As a binational organization created by Canada and the United States under the [Boundary Waters Treaty of 1909](#), the [International Joint Commission](#) (IJC or Commission) serves as an independent assessor of the progress made by the two governments to achieve the GLWQA's objectives. This Highlights report summarizes the findings from the IJC's first Triennial Assessment of Progress (TAP) report under the 2012 GLWQA, as well as recommendations for moving boldly into the next triennial cycle and beyond.

The [TAP report](#) is grounded in science and rooted in the values and views of the many individuals who comprise the Great Lakes community. In addition to reviewing progress reports from the governments, the IJC also obtained input from its Great Lakes advisory boards, from other governments deeply concerned with the health of the lakes, including Tribal, First Nations and Métis peoples, and from the public through an extensive consultation effort. The dialogue was robust, and the IJC deeply appreciates every person's efforts to contribute to this assessment of the health of the Great Lakes.

While significant progress has been made to restore and protect the lakes, the governments of Canada and the United States and Great Lakes civil society as a whole are living with the costly consequences of past failures to anticipate and prevent environmental problems. The Commission urges both countries to adhere to the prevention principle they wisely incorporated in the 2012 GLWQA.

Despite different perspectives and opinions, there is a value shared among the peoples of the lakes: that all the riches of the Great Lakes matter, and that we must do our best to preserve them for all time. We hope these reports contribute to that cause.



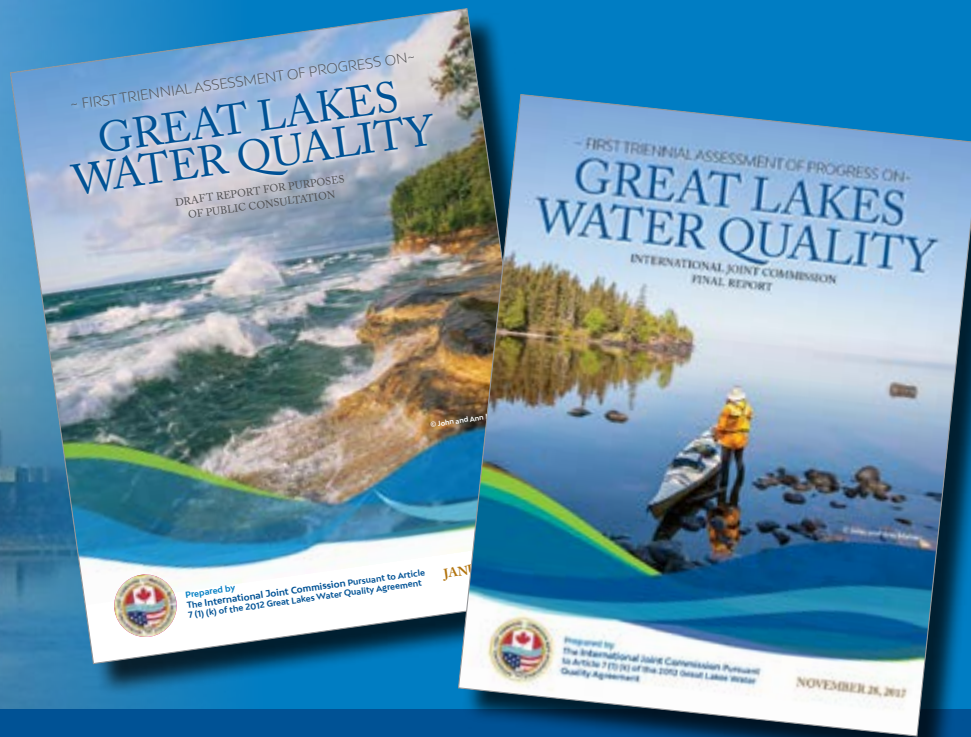
## HOW THE INTERNATIONAL JOINT COMMISSION ASSESSES AGREEMENT PROGRESS

The Commission is charged by the 2012 revision of the GLWQA to submit an assessment of progress regarding Great Lakes water quality to the United States and Canadian governments (the Parties to the GLWQA) every three years, after they provide their own binational progress reports. Pursuant to Article 7.1 (k), the IJC's Assessment of Progress Report is to include:

- i. a review of the Progress Report of the Parties;
- ii. a summary of public input on the Progress Report of the Parties;
- iii. an assessment of the extent to which government programs and measures are achieving the general and specific objectives of this Agreement;
- iv. consideration of the most recent State of the Lakes Report; and
- v. other advice and recommendations, as appropriate.

To fulfill these requirements, the IJC's assessment of GLWQA progress includes several steps. The IJC's Great Lakes advisory boards complete projects and reports on various Agreement topics and provide their own advice and findings for the Commission's consideration. IJC advisors also observe GLWQA implementation by the Parties and explore areas where progress is considered to be exceptional or lacking and report to Commissioners.





Covers of the draft report (January 2017) and final report (December 2017) of the first Triennial Assessment of Progress on Great Lakes Water Quality by the International Joint Commission.

The Parties then provide their own report of progress, entitled the Progress Report of the Parties (PROP). The two countries also provide an assessment of the condition of the lakes through their State of the Great Lakes (SOGL) Report.

All of this information was reviewed to produce a draft report on GLWQA progress, which was released to the Great Lakes community. Everyone was encouraged to provide input – Great Lakes residents, indigenous nations, businesses and industries, nongovernment organizations, and state, provincial and local governments. These comments were considered to produce the Commission's first [Triennial Assessment of Progress \(TAP\)](#) report under the 2012 GLWQA.

## Who are the PARTIES?

The Parties is another way to identify the signatories to the Great Lakes Water Quality Agreement. That is, the Governments of Canada and the United States.



## REVIEW OF GOVERNMENT PROGRESS REPORTS

### What are the GLWQA's ARTICLES and ANNEXES?

The Agreement includes ten articles that specify how the Agreement will be implemented, including the IJC's assessment role and how the Parties will work together and with others in the region. Ten annexes outline specific programs that will be completed to accomplish Agreement objectives or goals, which focus on:

- Areas of Concern
- Lakewide Management
- Chemicals of Mutual Concern
- Nutrients
- Discharges from Vessels
- Aquatic Invasive Species
- Habitat and Species
- Groundwater
- Climate Change Impacts
- Science

The Progress Report of the Parties (PROP) is a new commitment to accountability in the 2012 GLWQA, and the IJC commends the Parties for adding this to their Agreement responsibilities. The Commission concludes that the PROP meets its reporting requirements and documents actions that

governments have taken domestically and binationally in support of the GLWQA. The PROP provides a clear and readable catalogue of actions related to the GLWQA's articles and annexes, and also addresses each of the specific reporting requirements identified in the annexes.



The PROP does not significantly discuss progress relative to the GLWQA's general objectives, and the Parties have not yet established specific objectives for lake ecosystems or substances, except for phosphorus in Lake Erie. Accountability would be further improved over time with the addition of clear, specific, time-bound commitments for implementation goals and management actions. The report would also benefit from a more critical evaluation of the effectiveness of programs and measures by the Parties themselves, a greater demonstration of coordination outside of federal, state and provincial agencies, particularly with indigenous governments, and greater focus on and communication of the PROP as a public engagement tool.

The GLWQA also dictates that the Parties issue a State of the Great Lakes (SOGL) report to the IJC and the public every

three years, which describes basinwide environmental trends and lake-specific conditions using identified indicators of ecosystem health. The first SOGL report developed and issued under the 2012 GLWQA was released as a [highlights \(summary\) report in June 2017](#). The full [technical report was released in September 2017](#). As the technical report was released shortly before the IJC finalized its TAP report and this highlights report, the IJC had limited time to extensively consider its contents in this assessment. In the future, the Parties should coordinate release of the SOGL highlights and technical reports with the PROP to provide a complete picture of Great Lakes health and government actions for the public, and to enable the IJC to consider all government reporting in its assessment of progress.



The SOGL 2017 highlights report provides clear and concise information on the status and trends of Great Lakes indicators, using a report card format for each GLWQA objective. Potential enhancements for future SOGL reports include coordinated release with the PROP and cross-references or links between the two reports, along with links to interactive maps and videos.

Providing more storytelling in the highlights report would help the public understand how the system functions and its interrelationships between indicators and other parameters. Comprehensive binational monitoring needs to be strengthened to further improve indicator data and reporting.





## WHAT ARE OBJECTIVES?

In the GLWQA, the term “objectives” is used to identify the water quality conditions that both countries seek to obtain through the Agreement. *General objectives* include overarching goals, including water that is:

- Safe, high-quality drinking water
- Safe for swimming and other recreational use
- Safe for consumption of fish and wildlife
- Free from pollutants in quantities or concentrations that could harm human health, wildlife or aquatic organisms
- Water that supports healthy and productive wetlands and other habitats to sustain native species populations
- Free from nutrients that promote algae growth and resulting cyanobacteria
- Free from aquatic invasive species and land free from terrestrial invasive species that impact water quality
- Free from impacts of contaminated groundwater
- Free from other substances, materials or conditions that negatively impact the chemical, physical or biological integrity of the Great Lakes.

*Specific objectives* are measurements of water quality for each lake ecosystem according to parameters such as temperature, pH, dissolved oxygen, levels of plankton, fish and other biota, and others. Numeric targets are also set for specific substances, such as toxic pollutants, to reduce threats to the health of the Great Lakes ecosystem, including humans living in the region.



## PUBLIC INPUT ON AGREEMENT PROGRESS

The IJC firmly believes that achieving the GLWQA's purpose and objectives will happen only if all sectors of the Great Lakes community are involved. Article 7 of the Agreement requires the Commission to consult on a regular basis with the public, increase awareness of the lakes' inherent value, and prepare a summary of public input on the Progress Report of the Parties. The IJC conducted extensive public engagement activities to meet these requirements and to solicit views from the public on a draft of this report released in January 2017. The Commission received input at 13 public meetings, roundtables and listening sessions, through its online democracy platform, Participate IJC, and its newsletters, social media and website, and via email and letters. All comments were carefully considered in the production of the triennial assessment of progress report.

The public's comments span 70 issues and reflect the specific perspectives and priorities of each community, as well as those of the entire watershed. In every community, email

and letter, the level of interest in, commitment to and sense of personal responsibility for the health of the lakes – now and for future generations – was abundantly clear. A summary of the IJC's public consultation process as well as views contributed by each person are included in the [Summary of Public Comment Appendix](#) to the TAP report.

Many of their top concerns reflect the issues addressed in the GLWQA. Its first three objectives – to ensure drinkable, swimmable and fishable waters – are also the top goals or concerns expressed by Great Lakes residents. Others include the continued input and effects of persistent toxic substances, the intense and extensive harmful algal blooms occurring every summer in Lake Erie, impacts from aquatic and terrestrial invasive species, and the need to recognize that climate change is already affecting the Great Lakes ecosystem in several ways. The public wants funding to continue in both countries to clean up several of the most polluted sites around the lakes, known as Areas of Concern, and expressed significant concerns





IJC (Buffalo meeting)

## What are AREAS OF CONCERN?

An Area of Concern (AOC) is a location designated by the Parties under the GLWQA where environmental impairments resulting from local human activities prevent certain uses of the lakes. Remedial action plans, or RAPs, are to be created and completed for each of the 42 AOCs to restore the health of the waters and local ecosystem and to allow human uses such as drinking and recreation.



Source: <https://binational.net/annexes/a1>

for threats from energy production, waste, transportation and storage. People throughout the Great Lakes region also expressed a desire for governments at all levels to provide greater

and meaningful opportunities for the public to be involved in solving the wide range of issues that impact the lakes, human health and their quality of life.

# Issues of Public Concern for the Great Lakes



## Top 20 Topics of Public Concern

1. Safe drinking water (drinkable)
2. Recreation and tourism (swimmable, fishable)
3. Nuclear plants/nuclear waste
4. Proposed Lake Huron nuclear waste repository
5. Toxic contamination and other pollutants
6. Proposed US funding cuts to Great Lakes programs
7. Radionuclides as a chemical of mutual concern
8. Nutrients, agricultural runoff and best management practices
9. First Nation/Tribe/Métis involvement
10. Infrastructure and wastewater treatment plants
11. Draft TAP report content and findings
12. Citizen activism, public participation and education
13. Areas of Concern
14. Enbridge Line 5 pipeline
15. Climate change
16. Mandatory regulations for concentrated animal feeding operations
17. Aquatic invasive species
18. Harmful algal blooms
19. Asian carp
20. Safe beaches/closures







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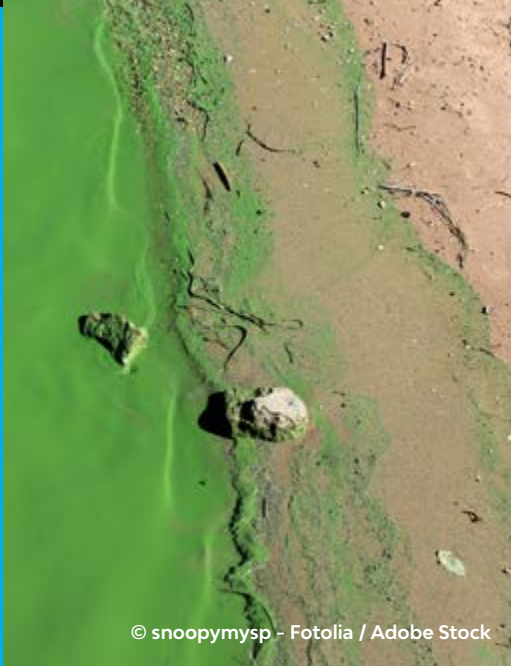
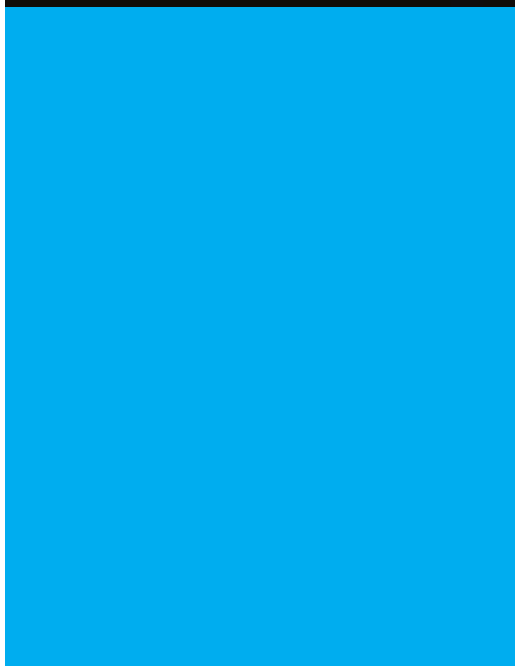
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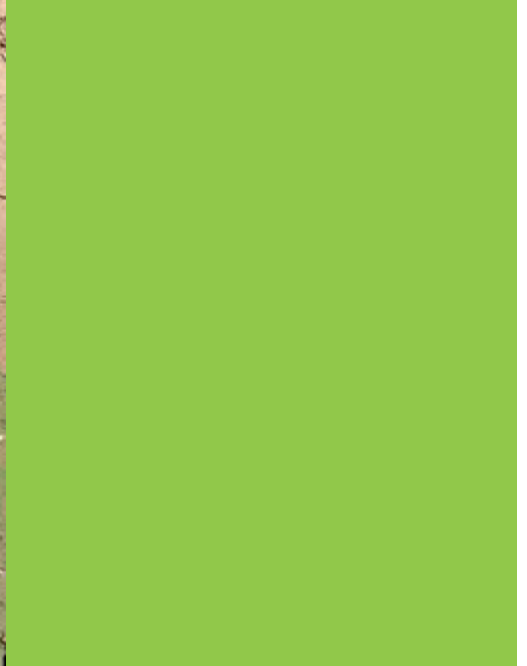
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## FINDINGS AND RECOMMENDATIONS

The IJC finds much to commend in the Parties' work under the GLWQA. In this first triennial cycle of implementation, the Parties successfully met deadlines to develop priorities for science and action, propose a nearshore framework, and set phosphorus load reduction targets for Lake Erie. The 2012 GLWQA also galvanized new energies and activity over a larger span of issues than was covered by previous versions of the Agreement.

Progress toward meeting the GLWQA's general objectives includes accelerated restoration of contaminated Areas of Concern, the development of binational habitat conservation strategies, the absence of newly introduced aquatic invasive species, and comprehensive reporting on groundwater science. But more work needs to be done. Significant challenges include the increase in harmful algal blooms in Lake Erie, the slow pace in addressing chemicals of mutual concern, and the spread of previously introduced invasive species. Governments also need to pay additional attention to infrastructure investments that are essential to eliminate the discharge of untreated or insufficiently treated waste into the Great Lakes and reduce risks to human health.





## IMPLEMENTING THE GLWQA

The IJC finds that the 2012 GLWQA galvanized new energies, activity and binational cooperation. The Parties are to be commended for authoring the new GLWQA, giving it momentum and harmonizing implementation activities. In just three years, the Parties have made remarkable progress formalizing mechanisms by which the new GLWQA can be implemented and meeting deadlines for initial Agreement commitments. The Commission salutes the Parties for these achievements.

### Recommendation

To continue and improve successes in GLWQA implementation, the IJC recommends that:

- The governments' financial investment in improving the water quality of the Great Lakes continue at current or higher levels.





## PROTECTING HUMAN HEALTH

The IJC finds that governments have not demonstrated sufficient progress toward achieving the human health objectives in their implementation of the GLWQA. The human health objectives are those related to the drinkability, swimmability and fishability of the Great Lakes. The Parties could improve their approach to and success in addressing human health objectives by enhancing focus on objective achievement, increasing coordination among jurisdictions and improving accountability. The Commission identified specific gaps in achieving human health objectives, including the protection and reporting of source water quality in the United States and the need for better communication of fish consumption advisories to vulnerable populations across the basin. Most importantly, the IJC finds that the continued discharge of inadequately treated and untreated sewage into the Great Lakes is unacceptable.

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### Recommendations

To improve progress toward achievement of the human health objectives, the IJC recommends that:

- The Parties establish an accelerated and fixed period of time by which zero discharge of inadequately treated or untreated sewage into the Great Lakes will be effectively achieved and dedicate sufficient resources to accomplish the task.
- To reduce human exposure to untreated and inadequately treated sewage, the Parties increase funding directed to infrastructure improvement and provide support to communities to proactively and systematically improve their capacity to respond to extreme storm events, especially as related to combined sewer overflows, planning, zoning and adaptation.



- The Parties enhance reporting on progress toward achievement of the GLWQA's human health objectives by collecting and reporting health data specific to the waters of the Great Lakes. The Parties should display binational health and environmental data on an ecosystem rather than domestic basis to facilitate public understanding and enable the analysis of affected populations and the distribution of impacts, such as beach closings.
- The Parties fix their fragmented approach to achieving the GLWQA human health objectives by developing mechanisms to enhance focus on objective achievement, increase coordination among jurisdictions and improve accountability, including more specific goals and timelines and a formalized approach to eliminate the silo effect across the Agreement annex committees.

Specifically to improve progress toward the objective that the waters of the Great Lakes should be a source of safe, high-quality drinking water, the IJC recommends that:

- The Parties monitor and report on source water quality for drinking water, and the United States match the Ontario requirement for source water protection plans to protect drinking water supplies.
- The Parties address infrastructure needs to eliminate all longstanding boil water advisories and persistent drinking water violations for communities everywhere in the Great Lakes basin.

Specifically to improve progress toward the objective that the waters of the Great Lakes allow for human consumption of fish, the IJC recommends that:

- The Parties set a goal of reaching all populations vulnerable to health impacts from fish consumption with accessible and protective fish consumption advisories, and draw up a plan to do so. Populations include frequent consumers of Great Lakes fish such as subsistence anglers, many African Americans, indigenous communities, and some immigrant and other minority communities. It also includes those vulnerable to contaminants such as women of childbearing age and young children. In developing a plan to reach this goal, the Parties should collaborate more closely with representatives of these communities.



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## REDUCING POLLUTANTS

The IJC finds that progress on the challenge to address pollutants in the Great Lakes has been disappointingly slow relative to their threat to the health of humans, wildlife and aquatic organisms in the Great Lakes basin. In the first three years of GLWQA implementation, only eight chemicals of mutual concern have been identified. No strategies for the binational management of these chemicals have been completed. Additional resources are needed to help the Parties meet the timelines they set for themselves for implementation and to protect Great Lakes water quality from chemicals of concern.



### Recommendations

To improve progress toward achievement of the pollutants objective, the IJC recommends that:

- The Parties accelerate work on binational strategies for elimination or continual reduction of chemicals of mutual concern with clear timelines set and met for strategy development and implementation.
- The Parties develop strategies that have at their core the principle of zero discharge.
- The Parties adopt and extend policies and programs based on the principles of Extended Producer Responsibility (EPR) on a broad range of products, including flame retardants, to prevent introduction of toxic and non-toxic contaminants into the Great Lakes. The Parties should include status reports on EPR programs and policies in the triennial Progress Report of the Parties.



## What are CHEMICALS OF MUTUAL CONCERN?

Under the GLWQA, the Parties agree to mutually determine those chemicals that come from human-made sources and are potentially harmful to human health or the environment, and to take cooperative and coordinated measures to reduce the release of these chemicals. Chemicals identified thus far include:

- Mercury
- Polychlorinated biphenyls (PCBs)
- Perfluorooctanoic acid (PFOA)
- Perfluorooctane sulfonate (PFOS)
- Long-chain perfluorinated carboxylic acids (LC-PFCAs)
- Polybrominated diphenyl ethers (PBDEs)
- Hexabromocyclododecane (HBCD)
- Short-chain chlorinated paraffins (SCCPs).

Nominations of radionuclides by the public and sulfates, lead and polycyclic aromatic hydrocarbons (PAHs) by government agencies are currently under consideration.

## What is Extended Producer Responsibility (EPR)?

EPR is a policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products. Such practices provide incentives for manufacturers to prevent waste and may promote product design that is environmentally conscious, thereby achieving sustainable recycling and materials management goals. This approach can be used for a broad range of products used every day by each person in the Great Lakes basin.



Stramyk



## CONTROLLING NUTRIENTS

The IJC finds that the water quality of western and central Lake Erie remains unacceptable. The Commission acknowledges the progress that has been made by the Parties, including setting phosphorus load reduction targets for the western and central basins. In particular, the IJC commends the participative approach used by the Parties for the development of these targets. However, the poor condition of Lake Erie warrants swifter action designed to achieve the targets.

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### Recommendations

To achieve steep reductions in phosphorus loadings and harmful algal blooms and improve progress toward achievement of the nutrients objective, the IJC recommends that:

- Domestic action plans to achieve phosphorus loading reduction targets include details on timeline, who is responsible for actions, expected deliverables, outcomes and quantifiable performance metrics in order to assure accountability.
- The Parties further act on advice from the IJC's 2014 report on Lake Erie, most notably with respect to the need for enforceable standards governing the application of agricultural fertilizer and animal waste, along with better linkage between agricultural subsidies and farm operator use of conservation practices that are demonstrably effective at curbing phosphorus runoff.
- The State of Ohio, under the United States Clean Water Act, list the waters of the western basin of Lake Erie as impaired because of nutrient pollution. The State of Michigan has now done so.
- Periodic testing be required and enforceable standards for maintenance and replacement of septic systems be instituted in the United States and Canada.
- All levels of government provide adequate resources to implement better storm water management systems in urban areas and accelerate the use of green infrastructure.



### **What are DOMESTIC ACTION PLANS?**

Domestic action plans are developed by the United States and Canada to combat the growing threat of toxic and nuisance algal development in Lake Erie. In 2012, through the GLWQA, the two governments agreed to establish binational phosphorus load reduction targets for Lake Erie by February 2016, or acceptable levels of phosphorus that can be released into the lake without creating conditions where toxic and nuisance algae will grow. They also agreed to develop plans that will outline strategies for meeting the new targets by 2018.

### **What is PHOSPHORUS?**

While phosphorus is an essential nutrient for plant and animal growth and nourishment, too much is not a good thing for freshwater bodies. When high amounts of phosphorus enter the lakes as a result of its use in a wide range of agricultural, industrial and domestic activities, toxic and nuisance algae grows in significant amounts. The harmful algal blooms that have grown in the western basin of Lake Erie in recent summers are an example of this excessive algae growth.

### **Why should Lake Erie be listed as IMPAIRED and what are TMDLs?**

Under the United States Clean Water Act, when Lake Erie is listed impaired because of nutrient pollution it triggers the development of a phosphorus total maximum daily load (TMDL) between Ohio, Michigan and Indiana, with US EPA oversight. The TMDL process calculates the maximum amount of daily loading or input that the impaired waterbody can receive from both point (direct releases from wastewater treatment plants or industries, for example) and nonpoint sources (runoff from agricultural land, for example) and still meet water quality standards for the particular pollutant. Following development of a TMDL, its implementation proceeds in order to meet water quality standards and restore the impaired water body.



## COMBATING INVASIVE SPECIES

Preventing the introduction of new invasive species, both aquatic and terrestrial, received strengthened consideration in the 2012 GLWQA. The IJC finds that there has been significant progress in preventing the introduction of aquatic invasive species to the Great Lakes. However, continued vigilance is required to prevent new introductions and control the spread of species that have already been introduced, in particular invasive *Phragmites*.

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### Recommendations

To improve progress toward achievement of the invasive species objective, the IJC recommends that:

- The Parties continue to devote significant resources to prevent Asian carp from invading the Great Lakes.
- The Parties continue to require ballast water exchange and flushing in addition to discharge treatment for seagoing vessels. Governments and industry should also dedicate sufficient research and testing to develop an effective binational approach to the regulation of ballast water discharge from “Lakers” within the next triennial reporting period.
- The Parties reach agreements on permitting the use of safe and effective control measures to reduce the spread of invasive species consistent across all jurisdictions within the next triennial reporting period.
- The Parties put in place long-term, sustainable funding mechanisms to support work on the fight against invasive species.
- Within the next triennial reporting period, the Parties invest significant resources to create an intensive, well-focused binational program for effective basinwide practices and new tools that can control and eradicate the threat of *Phragmites* and prove useful in controlling other invasive plants.



## What are PHRAGMITES?

*Phragmites* are a genus of four species of perennial wetland grasses found in temperate and tropical regions. Specific reference to *Phragmites* here refers to *Phragmites australis*, an Eurasian genotype that can grow over 6 meters tall (19 feet) and can quickly crowd out native species by exuding a compound that kills the roots of neighboring plants and by blocking out light to other species.

### *Phragmites* Infestation



Photo of *Phragmites* measuring up to 6 meters (19 feet) tall. (Source: Ontario Phragmites Working Group)





## CLEANING UP AREAS OF CONCERN

The IJC finds that the first triennial cycle of the 2012 GLWQA has been a time of great progress for Areas of Concern (AOCs), with many beneficial use impairments removed in Canada and the United States and three US AOCs delisted. Continuing this momentum is important to achieve many of the GLWQA objectives. It will require continued, if not accelerated, funding and public engagement.

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### Recommendations

To address Areas of Concern, the IJC recommends that:

- The Parties set a goal of completing remedial actions for all Areas of Concern in the next 15 years, and maximize beneficial use impairment removals and AOC delisting during that time period.
- The Parties continue to advance implementation of remedial actions in all remaining Areas of Concern (AOCs) by maintaining recent Great Lakes Restoration Initiative investments in the United States and by accelerating cleanup at Canadian AOCs.
- The Parties enhance robust public engagement through the remedial action program by creating meaningful opportunities for binational dialogue between AOC stakeholders, and supporting public advisory councils as they transition to life after delisting in their AOC.





## RESPONDING TO CLIMATE CHANGE

A changing climate has been influencing the Great Lakes for some time. Further climatic change is built into the future, thanks to inexorably rising carbon dioxide concentrations in the atmosphere. The addition of a Climate Change Impacts Annex to the 2012 GLWQA represents a positive step towards addressing these issues in the basin. However, the IJC finds that there is no Great Lakes basinwide perspective, approach or strategy for addressing climate change.

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### Recommendations

To better consider and adapt to climate change impacts, the IJC recommends that:

- The Parties demonstrate global leadership by jointly developing, in cooperation with other government jurisdictions, including indigenous governments and organizations in the Great Lakes, a binational approach to climate change adaptation and resilience in the Great Lakes.
- The Parties invest in a binational vulnerability assessment, defining the risks posed by climate change and providing technical support for measures to adapt to climate change, to engage stakeholders and all orders of government, and to identify priorities for responsive actions in the Great Lakes region.
- The Parties recognize the impacts of climate change on water infrastructure and provide support to communities to proactively and systematically improve the capacity to respond to extreme storm events, especially as related to combined sewer overflows, planning, zoning and adaptation.



IJC (Buffalo meeting)

## STRENGTHENING ENGAGEMENT

In the GLWQA, the Parties commit to “incorporating Public opinion and advice, as appropriate, and providing information and opportunities for the Public to participate in activities that contribute to the achievement of the objectives of this Agreement.” The IJC finds that the Parties have not fully incorporated robust public engagement into their activities. For example, the Parties are not showing sufficient urgency in confirming their approach to public engagement and related activities for Annex 2 (Lakewide Action and Management Plans or LAMPs). Additionally, LAMP partnerships took more than three years to begin establishing their outreach and engagement work groups – after the existing committees were disbanded. Without robust engagement, connections do not always exist between GLWQA processes and many affected communities.

### What are LAKEWIDE ACTION AND MANAGEMENT PLANS (LAMPs)?

Under the GLWQA, a LAMP is an action plan with specific steps and actions to cooperatively restore and protect the ecosystem of a Great Lake. LAMPs are developed and implemented in consultation with US state governments and the province of Ontario and may include participation from local government agencies and the public. LAMPs are in place for lakes Superior, Michigan, Erie and Ontario.



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## Recommendations

To better uphold the principle of engagement in GLWQA implementation, the IJC recommends that:

- The governments accelerate and deepen their approach to public engagement in Lakewide Action and Management Plans (LAMPs), including in-basin opportunities for participation and the use of social media and online engagement mechanisms.
- The Parties include more opportunities for public engagement with diverse communities and more thoroughly engage Tribal, First Nations and Métis governments in GLWQA implementation, incorporating greater contributions from these groups in the triennial Progress Report of the Parties.





## ENHANCING ACCOUNTABILITY

The IJC finds that the Parties have substantially improved accountability under the GLWQA by implementing a three-year reporting cycle, producing the Progress Report of the Parties, and improving the selection of indicators in the State of the Great Lakes report. However, accountability mechanisms can be further improved in subsequent cycles.

### Recommendations

To further improve reporting and accountability, the IJC recommends that:

- The Parties set clear, time-bound targets for action and also longer-term aspirations for improvements in the status and trends of Great Lakes as measured by science-based indicators.
- The Parties strengthen support for a comprehensive binational Great Lakes monitoring program to provide the essential information and understanding needed to quantify and interpret indicators, forecast change, prevent or mitigate impacts and restore and preserve the Great Lakes ecosystem.
- In future reporting cycles, the Parties coordinate the timing of the Progress Report of the Parties and the State of the Great Lakes report, and release the reports sufficiently before the Great Lakes Public Forum to ensure informed discussion at the Forum.
- The next Progress Report of the Parties, expected in 2019, and those following include reporting on how the recommendations in this triennial assessment of progress are being addressed.





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## CONCLUSION

The 2012 GLWQA is a landmark in cooperative efforts to protect the Great Lakes. Its objectives, guiding principles and annexes have stimulated new scientific, programmatic and advocacy efforts on the part of the Parties and the broader Great Lakes community. These activities have renewed the reputation of the GLWQA as a globally significant framework for protecting and restoring shared freshwater resources.

A framework, however, is not enough to restore and protect the Great Lakes. Success requires much more of government: visionary goals based on strong science and a commitment to prevent degradation of the Great Lakes; long-term planning supported by adequate and consistent funding; clear and enforceable standards backed up by environmental monitoring and reporting; and a day-by-day commitment to preventing further harm. By now, it should be clear that prevention makes environmental, economic and common sense.

The IJC offers this assessment of progress and recommendations to governments in the belief that an informed Great Lakes populace will insist that the Great Lakes Water Quality Agreement, and the effort to protect and restore the Great Lakes themselves, continue to be a model to the world.

The IJC sincerely appreciates the time, thoughts and experiences of each person who contributed to the consultation process undertaken for this report. The Commission hopes that this assessment stimulates a continued vigorous dialogue about progress and that it supports ideas and action to further strengthen Great Lakes protection and restoration.

We invite you to become a part of the active community of Great Lakes residents who are contributing to the lakes' healthy future. Please go to <http://ijc.org/files/tinymce/uploaded/GLWQA/TAP.pdf> to read the full TAP report, its Summary of Public Comment Appendix [http://ijc.org/files/tinymce/uploaded/GLWQA/TAP\\_PCA.pdf](http://ijc.org/files/tinymce/uploaded/GLWQA/TAP_PCA.pdf) and Technical Appendix [http://ijc.org/files/tinymce/uploaded/GLWQA/TAP\\_TA.pdf](http://ijc.org/files/tinymce/uploaded/GLWQA/TAP_TA.pdf), and subscribe to the IJC's monthly newsletter, [Great Lakes Connection](#).



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**-HIGHLIGHTS REPORT-**  
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