Great Lakes Water Quality Agreement: Is Honesty Without Accountability or Enforcement Still Enough?

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INTRODUCTION

"[Twenty-five] million people die each year from contaminated water. That’s the equivalent to the entire population of Canada,"\(^1\) but "[w]ithout water we would die within [three] days."\(^2\) Therefore, freshwater is extremely important to the world, especially as the population continues to grow and water becomes increasingly polluted by human activities. The Great Lakes is an ecosystem that lies on the boundary between the United States and Canada, containing twenty percent of the world’s fresh water.\(^3\) As industry and urban areas developed in the region, human pollution began to poison the Great Lakes.\(^4\) Since the beginning of the 1950s, the Great Lakes have become familiar with

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\(^{2}\) Id. at 14.


“bacteria-laden beaches, lakes choked with algae and fish contaminated by industrial waste.”

Public outcry grew as threats to human health, drinking water, and wildlife populations increased, forcing the governments to address the issue of pollution. Starting in the 1970s, the governments of the United States and Canada began working together to develop a solution to the Great Lakes’ many pollution issues.

Although pollution in the Great Lakes has decreased since the high levels of the 1950s through the 1970s, substances, including toxic, human, animal, and industrial wastes continue to pollute the Great Lakes. In the near future, the governments need to address new and old problems.

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5 Can. Broad. Corp. [CBC], Troubled Waters: Pollution in the Great Lakes, available at http://archives.cbc.ca/IDD-1-75-1390/science_technology/great_lakes_pollution/ (last visited June 10, 2007) (hereinafter Troubled Waters) (noting the very slow process to increase the quality of the Great Lakes water); accord Billups et al., supra note 4, at 263 (declaring that people and wildlife cannot safely use the Great Lakes water because damage in the sediments results in “fish and wildlife consumption advisories, fish tumors, ... and bird deformities”).

6 See Troubled Waters, supra note 5 (stating that with scientists and environmentalists monitoring progress, the Great Lakes are less polluted today than when the public outcry first began).


8 See 13th Biennial Report, supra note 3, at 1 (noting that the increased focus and monitoring of the Great Lakes is an improvement but that much more can be done); Int’l Joint Comm’n [IJC], Advice to Governments on their Review of the Great Lakes Water Quality Agreement: A Special Report to the Governments of Canada and the United States 6 (Aug. 2006), available at http://www.ijc.org/rel/pdf/advicefinalwc.pdf (last visited June 27, 2007) (hereinafter Advice to Governments) (explaining original concern of high phosphorus levels have decreased as phosphorus concentrations are now constant in four of the Lakes but continue to fluctuate in Lake Erie); Billups et al., supra note 4, at 276 (finding that Lake Erie’s phosphorus loads dropped sixty percent since the late 1960s). Toxic substances continue to contaminate the Great Lakes, injuring fish, wildlife, and humans. Id. at 289-90.

9 See 13th Biennial Report, supra note 3, at 1 (emphasizing that the future of the Great Lakes is “uncertain” and parties actions must increase quickly to restore, maintain, and preserve the Great Lakes water quality); See also Troubled Waters, supra note 5 (stating that scientists and environmentalists are monitoring issues concerning the Great Lakes); cf. Int’l Joint Comm’n [IJC], 12th Biennial Report on Great Lakes Water Quality (September 2004), available at
Citizens of the Great Lakes Region, and increasingly U.S. citizens at large, remain concerned with these issues.\(^\text{10}\)

The United States and Canada began working together to maintain the "chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem"\(^\text{11}\) through a series of Agreements. In 1972, the two countries created the original Great Lakes Water Quality Agreement ("GLWQA") as an attempt to resolve all of the present and potential future problems and disputes of the Great Lakes Region.\(^\text{12}\) However, the countries need to address the GLWQA’s pitfalls.\(^\text{13}\) As the International Joint Commission ("IJC") and the governments work together to review the GLWQA, it is desirable to modify the language of the GLWQA to put more accountability and enforcement mechanisms in place.\(^\text{14}\)

This Comment explores the failures of the GLWQA. Part I discusses the history of the GLWQAs and the pressures resulting in modifications to the GLWQA.\(^\text{15}\) Part II analyzes the problems facing the

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\(^\text{12}\) Great Lakes Water Quality Agreement of 1972, U.S.-Can., Apr. 15, 1972, 23 U.S.T. 301 (hereinafter GLWQA 1972) (stating the need for regular reviews to understand the status of the Great Lakes and a need for efforts by the parties to improve the quality of the region).

\(^\text{13}\) See infra notes 86-87.

\(^\text{14}\) See Michael J. Donahue, The Case for Good Government: Why a Comprehensive Review of the Great Lakes Water Quality Agreement is Needed, 1999 TOL. J. GREAT LAKES’ L. SCI. & POL’Y 1, 10-11 (1999) (asserting that a review is the only way to ensure that parties meet their responsibilities); see also infra Part III.A-B.

\(^\text{15}\) See infra Part I.
GLWQA today, including the lack of accountability and enforcement mechanisms within the text of the GLWQA.16 Lastly, Part III argues that adding accountability and enforcement mechanisms to the text, while simultaneously increasing public participation, will help ensure the preservation of one of the great wonders of the world.17

I. BACKGROUND

Before disputes concerning water quality, use, and ownership rose to a problematic level, the United States and Canada began working together regarding the waters that flow between the two countries.18 Early in the twentieth century, the countries’ primary goal was ensuring their full access to the waters that stretched across a large portion of the boundary between them.19 As time progressed and humans began an extensive use and abuse of the waters the countries’ needs changed and they focused on working cooperatively to restore and maintain the quality of the Great Lakes.20

A. The Boundary Waters Treaty of 1909: A First Effort at Regulating the Boundary and Transboundary Waters

In 1909, the governments of the United States and Great Britain (on behalf of Canada) enacted the Boundary Waters Treaty ("BWT").21 The BWT is a contract between the United States and Canada governing the use of boundary and transboundary waters.22 The purpose of the BWT is to offer guidance to the countries and serve as a source to help resolve

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16 See infra Part II.
17 See infra Part III.
19 See infra note 24.
20 See infra Part I.B-D.
22 See BOTTS & MULDOON, supra note 7, at 9 (reinforcing that the BWT governs the world’s largest freshwater ecosystem).
disputes over the water quantity and water quality. At its core, the BWT controls the allotment of the water and declares that the water between the countries is a shared source. Today, the BWT remains the key contract regarding the Great Lakes.

Within this BWT, the parties created the IJC, designed to examine and report on issues over the waters between the United States and Canada. Although according to the terms of the BWT the IJC is an investigative and adjudicative body, in actuality its adjudicative powers are extremely small. The functions of the IJC include: (1) quasi judicial power, which applies to the governing principles of the water use

23 See What is the Boundary Waters Treaty?, supra note 10, at 1 (noting that the parties created the BWT to oversee all present and future disputes that could arise over the boundary between the United States and Canada).

24 See Christina D. Arvin, Virtual Elimination of Dioxin: Efforts of the United States and Canada to Eliminate Dioxin Pollution as Required by the Great Lakes Water Quality Agreement, 7 IND. INT’L & COMP. L. REV. 131, 132-33 (1996) (stating that early on, feared disputes about ownership were the main concerns with the Great Lakes, not pollution); Sean P. Gallagher, Great Lakes Water Quality Initiative: National Standards Governing a Binational Resource: A Call for International Rulemaking, 2 IND. J. GLOBAL LEGAL STUD. 465, 466-67 (1994-1995) (proposing that the purpose of BWT was to secure navigation rights and protect against water diversions).

25 See BOTTs & MULDOON, supra note 7, at 9 (explaining that the BWT developed when the countries wanted a binational institution, more permanent than the 1905 International Waterways Commission).

26 See Boundary Waters Treaty, supra note 21, art. III (declaring that parties established the International Joint Commission ("IJC") to give complainants a "convenient opportunity to be heard" regarding issues concerning the boundary and transboundary waters); Advice to Governments, supra note 8, at 25 (explaining the IJC operates as a binational—involving both nations—instead of a bilateral—representing your own sides—organization). Six individuals are on the IJC at a time, three from each country, despite the large difference in population between the two countries. See Boundary Waters Treaty, supra note 21, art. III.

27 See Boundary Waters Treaty, supra note 21, art. VIII ("This International Joint Commission shall have jurisdiction over and shall pass upon all cases involving the use or obstruction or diversion of the waters . . . ."); see also Noah D. Hall, Implementing Environmental Legislation: The Critical Role of Enforcement and Compliance: The Evolving Role of Citizens in United States-Canadian International Environmental Law Compliance, 24 PACE ENVTL. L. REV. 131, 139-40 (2007) (explaining that to submit to the IJC’s adjudicative power, both countries, even the country alleging a violation, must have a two-thirds majority within their national government to agree to the IJC’s arbitration).
(obstruction and diversion), (2) reference power—investigatory and advisory, and (3) arbitral power, to resolve disputes under Article X.\textsuperscript{28} Since the IJC is structured to hear and accommodate the needs of both countries, parity and equality are the main operating principles of the IJC.\textsuperscript{29}

B. The Great Lakes Water Quality Agreement of 1972: A Joint Attempt at Controlling Pollution

Following World War II, a tremendous surge in public and scientific concern arose about the pollution problems within the Great Lakes Region.\textsuperscript{30} By 1964, the issues had become so important that both countries requested that the IJC conduct a study to examine the pollution problems.\textsuperscript{31} In response to the study, the United States and Canada worked towards negotiating an agreement to monitor and limit pollution within the Great Lakes Region.\textsuperscript{32} The BWT provided the “legal and institutional foundation” for the GLWQA.\textsuperscript{33} The 1972 Agreement was the first

\textsuperscript{28} See Arvin, \textit{supra} note 24, at 134 (stating that the IJC has never used their Article X power because one of the IJC’s strengths is avoiding disputes); Gallagher, \textit{supra} note 24, at 467; Lynton K. Caldwell, \textit{Emerging Boundary Environmental Challenges and Institutional Issues: Canada and the United States}, 33 \textit{Nat. Resources J.} 9, 20 (1993).

\textsuperscript{29} See \textit{Botts \& Muldoon, supra} note 7, at 11-12 (discussing the five operating principles of the IJC including: (1) maintain parity and equality, (2) work with binationalism, (3) depend on fact-finding to resolve issues, (4) separation from other interested parties, and (5) individual representatives must act with their own expertise, instead of as a representative of a group or government).

\textsuperscript{30} See \textit{id.} at 13 (explaining that this surge in concern led both the U.S. and Canadian governments to negotiate a bilateral agreement).

\textsuperscript{31} See Gallagher, \textit{supra} note 24, at 467 (reporting very disturbing results, including the discoveries that Lake Erie was a “dead lake” and that high levels of phosphorus were causing eutrophication).


\textsuperscript{33} See \textit{Botts \& Muldoon, supra} note 7, at 7 (observing that the BWT created the IJC, forcing Canada to overcome their fear of domination, and the United States to realize cooperation is vital).
international agreement to "restore and protect a large ecosystem across an international border." 34

1. The Status and Purpose of the GLWQA

The United States and Canada created the GLWQA because of concern over water pollution into a source of water the public used for drinking and recreation, among many other things. 35 The GLWQA aims to stop pollution that may result from human activities such as population growth, resource development, and the increased use of the water for survival, sanitization, and recreation. 36 The GLWQA, a bilateral "executive agreement," has a very ambiguous status. 37 Due to the GLWQA's ambiguity, some, including the U.S. Environmental Protection Agency ("EPA"), argue that the GLWQA must be integrated with the domestic law of each respective nation, because it is not enforceable by itself. 38

2. Parts of the GLWQA

The GLWQA is composed of two parts, the GLWQA itself and

34 See id. at 2 (citing LEE BOTTs AND BRUCE KRUSHELNICKI, THE GREAT LAKES: AN ENVIRONMENTAL ATLAS AND RESOURCE BOOK (Great Lakes National Program Office, U.S. Environmental Protection Agency 3d ed. 1995)).
35 Cf. id. at 14-15 (finding an increase in public demand resulted with the IJC conducting a review that estimated cleanup efforts would cost the United States $1.3 billion and Canada $211 million).
36 See generally Great Lakes Water Quality Agreement, supra note 11, 23 U.S.T. at annexes 1-17 (condemning several actions that pollute or damage the Great Lakes region such as discharges of oil, onshore, and offshore facilities, and damages from dredging, among many other actions taken by citizens of the countries).
37 See BOTTs & MULDOON, supra note 7, at 15 (explaining that the heads of each country sign an executive agreement but the agreement is not required to go through the traditional process where Congress and Parliament ratify the agreement).
38 See id., at 15, 17 (noting that due to the GLWQA's status either country may terminate the GLWQA with a one-year notice, making the GLWQA unenforceable in the long run); cf. Arvin, supra note 24, at 137 (explaining argument between Environmental Protection Agency ("EPA"), who argue that the GLWQA is not binding and others, who argue the GLWQA is binding as an international treaty).

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several annexes. The GLWQA lays out specific and general objectives. The text requires the countries to use their “best efforts” to implement the objectives. One Annex in particular, addresses high phosphorus levels in the water, an immediate concern. The remaining Annexes of the GLWQA list target levels, which must be achieved using joint efforts, for other toxins and describe the functions of programs and IJC created Boards.

3. Roles of the International Joint Commission, States, Provinces, and the Public

The parties to the GLWQA conferred the same powers to the IJC under the GLWQA as it did under the BWT. The IJC has the responsibility to collect, analyze, and disseminate information and data concerning the Great Lakes Region and pollution levels. Further, the IJC can give recommendations, and investigate current issues or potential issues but they have severely limited adjudicative enforcement powers.

39 See Great Lakes Water Quality Agreement, supra note 11 (composing of “narrative” descriptions in the articles and a “list specific objectives” in the annexes).
40 See Gallagher, supra note 24, at 468 (noting that the specific objectives “incorporate both narrative and numerical standards for individual pollutants”).
41 See generally Great Lakes Water Quality Agreement, supra note 11, at art. IV (requiring only that the parties attempt to achieve the specific and general objectives by putting forth maximum efforts, but the GLWQA does not state that the parties “must” achieve the results).
42 See id. annex 2 (providing detailed information on phosphorus levels and recommending the creation of programs to control phosphorus from (1) municipal sewage, (2) industrial discharges, and (3) those attributable to animal husbandry); see also Gallagher, supra note 24, at 468 (noting that phosphorus is among other pollutants in sewage).
43 Cf. Great Lakes Water Quality Agreement, supra note 11, at annex 1 (citing toxins such as chemical pesticides and metals, dissolved oxygen, oil, and many more substances).
44 See id. art. VI (conveying powers under Article VI of the GLWQA).
45 See id. art. VII (granting the same powers of the IJC under the BWT).
46 See Christina D. Arvin, supra note 24, at 135 (listing new powers the IJC received under the GLWQA including analyzing information concerning water quality, evaluating program effectiveness, giving recommendations, and establishing Boards); see also Noah D. Hall, supra note 27, at 140 (noting for example, “[f]or a dispute to be submitted to the
The IJC offers advice on problems or potential problems if the need arises. Under the GLWQA, the IJC set up two boards, the Water Quality Board and a Research Advisory Board. Although the parties created the Boards to help with the success of the GLWQA, “[t]he relative functions of the [Boards] are somewhat uncertain.”

Under the GLWQA, states and provinces have different roles. States are responsible to the federal government and federal policy since they did not sign onto the GLWQA individually. The states’ role in implementing the GLWQA is therefore ambiguous and contradictory. Canada’s provinces have a much larger role than the states because provinces have the “implementation power through legislation and program control rather than the federal government.” Since the parties enacted the GLWQA in the 1970s, citizen participation in the monitoring and implementation of international environmental agreements has expanded. Public participation plays a large role in the effectiveness of

International Joint Commission for a binding arbitral decision, a reference is required by both countries. . . . [t]he consent of the U.S. Senate is required for such action.”) (internal citations omitted); Lloyd J. Spivak, Comment, Structural and Functional Models for the Proposed North American Commission on the Environment, 8 AM. U.J. INT’L L. & POL’Y 901 (1993) (reporting that governments have not used the arbitrary powers of the IJC, which require both parties to consent to arbitration).

See Great Lakes Water Quality Agreement, supra note 11, art. VII (requiring the IJC to report the GLWQA’s progress biennially).

See Botts & Muldoon, supra note 7, at 18 (stating that the Boards, like the IJC, must act in their “expert capacity, rather than as representatives of their respective governments”).

See id. at 37 (noting that the Boards are ongoing and serve as references).

See infra notes.

See Botts & Muldoon, supra note 7, at 31-32.

See id. (explaining that states’ satisfaction with the GLWQA is based on the level of federal funding that they receive to implement such programs). Originally states would only match federal funding to GLWQA programs. Id.

See id. at 32 (stating that because only the federal government, not states or provinces, can negotiate international agreements, this lead to the formation of many bilateral federal-provincial agreements in Canada, such as the development of the Canada-Ontario Agreement in 1971).

See generally Hall, supra note 27 (declaring that citizen participation is now integral into the success of the binational environmental legal regime today because of the public’s expanded role in the enactment of agreements in the last few decades).
the GLWQA.  

C. The Great Lakes Water Quality Agreement of 1978: More than Control—Virtual Elimination of Pollution

In 1978, the parties modified the GLWQA and it became known as the Great Lakes Water Quality Agreement of 1978. The main difference between the original GLWQA and the 1978 revision is that the first GLWQA focused on improving the water quality through “pollution control,” whereas the revision adopted a broader approach by taking into account the entire Great Lakes Ecosystem and aimed at the “virtual elimination” of toxic pollutants. Although the original GLWQA focused on phosphorous levels, the first revision was more evolved and addressed other environmental problems.

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56 Great Lakes Water Quality Agreement of 1978, U.S.-Can., Nov. 22, 1978, 30 U.S.T. 1384; see Gallagher, supra note 24, at 483 (asserting the revision was the first international agreement to look at an entire ecosystem and requires the governments to work together).

57 When referring to the “GLWQA” in the remaining portions of the Comment it is a reference to the original GLWQA and all subsequent modifications.

58 See BOTT & MULDOON, supra note 7, at 51 (citing that the goal of the renegotiation was to look at the implementation and effectiveness of the GLWQA); see also Gallagher, supra note 24, at 469-70 (noting that the parties revised the GLWQA in response to the increasing toxic chemical problems). The GLWQA encouraged the countries to develop programs to minimize or eliminate substances from the region. Id.

59 See generally BOTT & MULDOON, supra note 7, at 52-57 (acknowledging the evolved scientific research in the area and the greater understanding of pollutants).
D. The Protocol of 1987, Amending the GLWQA: Continued Expansion and Protection

During the 1980s there was a change in the general approach taken by the United States and Canada in their environmental practices. The parties modified the revised GLWQA again in 1987, nearly ten years after the previous negotiations, forming the 1987 Protocol ("Protocol") between the United States and Canada. The Protocol included the development of two new programs: Remedial Action Plans ("RAPs") and Lakewide Management Plans ("LaMPs"). Another major change involved a shifting of the power and responsibilities from the IJC to the governments of the GLWQA. A major goal of the Protocol and reason for updating the GLWQA was to increase government accountability.

Even though the parties have not modified the GLWQA itself in over twenty years, the Great Lakes Regime is constantly evolving. New problems are arising in the region including the arrival of invasive species

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60 See id. at 51-52 (noting that a shift in the 1980s resulted in a focus on pollution prevention rather than pollution control).
62 See, e.g., GLWQA 1987, supra note 61, annex 1 (declaring that Remedial Action Plans ("RAPs") restore and protect Areas of Concerns and Lakewide Management Plans ("LaMPs") are programs developed to restore and protect "open lake waters"); Gallagher, supra note 24, at 471 (explaining that the RAPs are programs aimed at extremely polluted areas that require immediate action); Becker, supra note 55, at 253 (explaining that RAPs are in place to restore the Areas of Concern, and rely, to a great extent, on public participation).
63 See BOTTs & MULDOON, supra note 7, at 103 (stating that the goal was to encourage more direct communication between the governments which would save travel time and money); Gallagher, supra note 24, at 471-72, 474 (noting that the shift in power, from the IJC to the parties directly, makes the parties responsible for the coordination of the GLWQA itself and for meeting at least twice a year).
64 See Billups et al., supra note 4, at 280 (asserting that accountability in the Protocol should increase by "regular government reporting to the IJC and the public" and that the governments need to submit a "report card" every second year); see also Donahue, supra note 14, at 5 (noting that the IJC's role, in coordinating, assessing, and monitoring progress, has decreased).
and global warming, which affect the lives of citizens. Each country also has taken different approaches to the management of the environment. The United States has evolved even further from pollution prevention to the new policy of the "preservation of biodiversity and restoration of habitat." Congress passed new legislation in 2003 that ignores the terms of the GLWQA. Canada focused on the "virtual elimination" of pollution, but when funding became limited, the Canadian government downsized programs. Since downsizing program expenditures, Canada has struggled, particularly in the 1990s, to maintain its existing environmental laws. Governments taking individual approaches call the GLWQA into doubt for the first time since its enactment in 1972. The future will tell whether the GLWQA will withstand a changing physical and political environment.

The governments are currently undergoing a review of the GLWQA and before beginning the review the IJC collected public input

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65 See Advice to Governments, supra note 8, at 6 (discussing new chemical issues (input of polybrominated diphenyle ethers), biological issues (invasive species), climate change, air pollution, shoreline development, and urban sprawl, which cause problems for lake species and humans alike including bans on swimming beaches); cf. BOITS & MULDOON, supra note 7, at 89 (asserting that the old problem of toxic contaminants, including a surge in phosphorus levels, remains a "major issue").

66 See BOITS & MULDOON, supra note 7, at 28 (stating that both governments enacted environmental laws and the U.S. EPA and Environment Canada created programs to respond to the pollution issues).

67 See id. at 91-92 (explaining that the 1990 Clean Air Act and the EPA now have control over many aspects of the GLWQA, and the EPA is encouraging “voluntary pollution prevention by major industries”).

68 See id. at 137 (stating that the new legislation grants the Great Lakes states control over new federal funding). The states did not sign the GLWQA and therefore, are not required to use the funding to advance the goals of the GLWQA. Id.

69 See id. at 94-97 (noting Canada announced the Green Plan in 1990 in response to the argument made by activists that current programs were not effective enough). Ultimately, the Green Plan was unsuccessful because of a deficiency in funds. Id.

70 See, e.g., id. (discussing Canada’s numerous environmental laws, many aimed at the Great Lakes, that face problems due to a lack of funding).

71 See, e.g., id. at 137 (explaining that Congress passed new legislation regarding prevention of pollution into the Great Lakes region without the consent of Canada or the IJC).
on the status of the Great Lakes Ecosystem and the GLWQA.  

The IJC has issued advice to the governments, advising them to replace the GLWQA with a new, more action oriented agreement.  

Finding solutions to the Great Lakes issues is becoming increasingly important because a problem in the Great Lakes "is nearly always a global problem."  

II. ANALYSIS:

"With the environmental concerns rising to the forefront of [United States and Canada's] agendas, it is urgent that both countries consider how to strengthen the [GLWQA] and expand their mutual cooperation in controlling pollution in the Great Lakes."  

Binational cooperation is critical to the success of the GLWQA because "contamination does not recognize international borders."  

Since the enactment of the GLWQA, pollution into the Great Lakes has decreased tremendously but the parties

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73 See Advice to Governments, supra note 8, at 1.

74 BOTTS & MULDOON, supra note 7, at 3-4; accord Synthesis of Public Comment, supra note 72, at 7.

"Only one ten-thousandths of planet Earth's water is fresh and available. Water is part of the 'Global Commons': which we share with all the world’s people and life forms. The Great Lakes represent 18 to 20 percent of that very scarce resource. We have a huge global responsibility to protect the 10,000 year-old, life-sustaining gift from the last ice age. Freshwater scarcity is so severe it ranks second only to climate change as the most pressing global environmental issue today."

Id. (internal citations omitted).

75 Weiss, supra note 3, at 385-86.

have not reached many of the requirements or goals of the GLWQA. The parties have not changed or modified the GLWQA since 1987, even though the GLWQA requires updates and reports on the quality of the lakes and progress made by the parties.

Problems exist because the GLWQA lacks both accountability and enforcement mechanisms. Without accountability mechanisms, governments do not know nor need to take control of different

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77 See Billups et al., supra note 4, at 248, 254-55 (finding governments have not (1) worked with the IJC and listened to suggestions on many matters, (2) succeeded at eliminating any critical pollutants, (3) set timetables, or (4) completely resolved the eutrophication problem in harbors, rivers and streams, among many other things); Neil S. Kagan, Great Lakes Commentary: Building on the Great Lakes Water Quality Agreement: The Next 25 Years, 1998 TOL. J. GREAT LAKES' L. SCI. & POL'Y 37, 38 (1998) (noting that “progress has stalled” in the Great Lakes region since the mid-1980s); Oran R. Young, North American Resource Regimes: Institutionalized Cooperation in Canadian-American Relations, 15 ARIZ. J. INT'L & COMP. L. 47, 47, 51 (1998) (explaining that there are many positive results of the GLWQA including serving as a model to other parts of the world, contributing to the increased understanding of the ecosystems in question, and encouraging regulations that lead to improvements in the quality of the lakes). However, Young notes that not all efforts to resolve disputes concerning the shared natural resources and environment between Canada and the United States have been successful. Id. Among other problems, Young discusses the issues of lack of resources and the weakening of the GLWQA due to changes in the administrative provisions made by the 1987 Protocol. Id.

78 See Billups et al., supra note 4, at 250 (implying that the governments of the United States and Canada have not met the communication expectations of the public including consulting with the public on matters such as the development and implementation of LaMPS); See also infra notes 116-117 (explaining parties have not reported as required); cf. BOTTs & MULDOON, supra note 7, at 211 (providing a list of challenges facing the Great Lakes regime: (1) low levels of political commitment and resources, (2) decreased political power of the communities surrounding the Great Lakes, (3) lack of implementation, (4) new dangers, (5) low levels of funding for research and science, (6) the changing power from the IJC to the governments, and (7) failure of the parties to communicate with other international organizations).

79 See 13th Biennial Report, supra note 3, at 2 (suggesting that the governments of the binational GLWQA apply an extremely strong Accountability Framework to increase the accountability of the countries under the GLWQA).

80 Cf. Hall, supra note 27, at 159 (arguing that the United States is highly unlikely to enter into a binding international agreement that would force it or its industries to comply with international adjudication in regards to environmental regulations).
Without enforcement mechanisms, governments do not follow through with commitments they made that are good for the world at large. Although the GLWQA has been successful, the serious past and future problems with the Great Lakes Basin Ecosystem have not disappeared and "[we] should never take success for granted in efforts to institutionalize cooperation at the international level," because "even the most successful arrangements ... are not immune to pitfalls that could lead to serious problems in the future ..."

A. The GLWQA Lacks Substantial Accountability: Parties and Citizens do not know what Actions They or Others are Responsible for

Accountability in treaties and agreements is critical to their success and the GLWQA lacks sufficient accountability mechanisms. In the past, the minimal accountability in the GLWQA, such as requiring the parties to provide special reports, greatly increased the development and awareness of a large binational community, but these same mechanisms have not

81 See infra Part II.A.
82 See infra Part II.B.
83 See Donahue, supra note 14, at 1 (contending that GLWQA made substantial progress, despite citizens and organizations argument that progress was inefficient).
84 Young, supra note 77, at 68 (noting variation in the success of international environmental agreements, even when they involve the same two parties).
85 Id. at 57.
86 See Advice to Governments, supra note 8, at 5 (discussing the problems with the GLWQA including outdated goals, redundancies and missing pieces, and a lack of specific targets, responsibilities, and actions); Becker, supra note 55, at 268 (stating that the IJC does not have the power to hold parties accountable and the parties are not motivated to meet deadlines). But see Botts & Muldoon, supra note 7, at 198 (noting that accountability played a major role in the first twenty-five years of the GLWQA). Acknowledging the importance of accountability, some analysts believe that the success of the GLWQA is partially due to the accountability and openness built into the GLWQA by the sharing of information among the parties. Id. The authors argue that there is accountability in the GLWQA, citing provisions requiring periodic review, regular progress reports, information be available to the public, and information be shared between the parties and the IJC. Id. at 210.
been as successful in the last few years. The GLWQA depends on the parties knowing what results they are responsible for because "[u]nambiguous accountability is central to the [GLWQA]'s success." However, the GLWQA does not specify which party is responsible for taking what actions in regards to several aspects of the GLWQA.

1. The GLWQA does not specify Action Roles

Which level(s) of government, federal, state, provincial, or even municipal, is accountable to the GLWQA is unknown, and confusing at best. The lack of knowledge as to which government or level of government is accountable for what actions is unsurprising, as the GLWQA does not explicitly make certain levels of government accountable. While the GLWQA makes clear that the term "parties" refers to both the United States and Canada, it does not further assign roles to different levels of government within each country. At most, the

87 See Botts & Muldoon, supra note 7, at 211 (asserting that the parties need to quickly change the GLWQA before it becomes irrelevant to the preservation of the Great Lakes and can no longer address existing and new challenges).

88 13th Biennial Report, supra note 3, at 20 (arguing that progress in protecting the Great Lakes from old and new problems depends in large part on whether or not the many different levels of government can work together and create solutions to hold each accountable to the GLWQA).

89 See id. at 8-9 (summarizing that the GLWQA only mentions the Coast Guards specifically, while the rest of the GLWQA assumes that the federal governments will work with the specified state and provincial governments to achieve the various objectives); cf. Synthesis of Public Comment, supra note 72, at 14 (finding that although the there is debate about where the responsibility lies, most citizens believe the federal governments have most of the exclusive accountability).

90 See Synthesis of Public Comment, supra note 72, at 14.

91 See GLWQA, supra note 11, arts. I-XV (conveying the sense that pollution controls is a group effort but failing to state more specific accountability roles); Synthesis of Public Comment, supra note 72, at 14 (quoting one university professor as saying, "local, state and provincial governments have absolutely no accountability or governance mandate under the Great Lakes Water Quality Agreement").

92 See GLWQA, supra note 11, art. I (stating that the term "State and Provincial Governments" applies to state and provincial governments that border the Great Lakes including Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Wisconsin, Pennsylvania, and Ontario, but the text does not include a list of responsibilities of individual actors or governments); See also Advice to Governments, supra note 8, at 6
GLWQA provides, "[t]he Parties, in cooperation with State and Provincial Governments" or "Parties commit themselves to seek . . . the cooperation of the State and Provincial Governments in all matters relating to this [GLWQA]." In Annexes 1 and 2, the GLWQA does state that the parties need to make sure that any state or provincial government involved is consulted and that the public is consulted as well, but exactly who is effected or who needs to consult the public is not outlined.

Without accountability, federal, state, provincial, and local governments easily avoid including in their budgets the costs required to decrease pollution and return the Great Lakes to their natural state. Without knowing who has the responsibility to implement programs and who has already implemented programs, the GLWQA cannot hold individuals and parties accountable. For example, Article IV of the GLWQA lays out the specific objectives but does not explain which governments are responsible for the objectives or how those responsible should achieve the vague objectives. Article VI states, "areas should be identified by appropriate jurisdictions," but the appropriate jurisdictions are unknown. Therefore, governments can pass the blame or responsibility to someone else.

(noting accountability for achievements under the GLWQA is not specified in the GLWQA).

93 GLWQA, supra note 11, art. VI.
94 Id. art. XI.
95 See id. annexes 1-2 (discussing goals of specific and general objectives including RAPs and LaMPs).
96 See infra notes 117-119 and accompanying text.
97 See 13th Biennial Report, supra note 3, at 7 (stating it is crucial to review the attempts to achieve the results of the GLWQA and the means used to accomplish these objectives in order to establish accountability).
98 See generally GLWQA, supra note 11, art. IV, annexes 1-17 (stating the specific objectives include the parties, in cooperation with state and local governments and the IJC, working towards the elimination of: (1) areas of concern, (2) critical pollutants, and (3) point source impact zones). Other than setting certain substance levels that should not be exceeded in the Great Lakes, the GLWQA contains little guidance on how to achieve these levels. Id.
99 See id. art. VI; Caldwell, supra note 28, at 13 (finding that governments can avoid responsibility because there is no unified jurisdiction that has control).
100 See Dworsky et al., supra note 18, at 351 (charging that national governments fail to implement programs and instead pass responsibility to state, provincial, and local
2. The GLWQA’s Standards are Unclear and Outdated

In addition to the uncertainty of responsibility, the GLWQA lacks clarity on what needs to be accomplished or by when. Under the GLWQA the parties agreed to use “maximum effort,” “all reasonable and practicable measures,” and their “best efforts” to fulfill the purpose of the GLWQA, but the GLWQA does not require the parties to go any further or define the meaning of these terms. There are some target levels for the parties to reach concerning several substances, requirements that the parties meet with each other, and a general framework for the parties to follow, but there is a deficiency of specific requirements to comply with the GLWQA. Article IV, Specific Objectives, provides that parties should use the results of “statistical valid sampling data” to determine the achievement levels of the objectives, an example of a broad requirement that provides little direction to the parties. Though the
Annexes do provide some direction, they fail to address the other accountability issue—who is in charge of the program.\textsuperscript{109}

The GLWQA lacks any “rigorous” accountability plan.\textsuperscript{110} Further, the objectives the GLWQA does contain are outdated and indefinite because the GLWQA was last updated in 1987.\textsuperscript{111} One of the few dates listed in the GLWQA and the most recent is September 30, 1989 where parties were required to identify and report Point Source Impact Zones to the IJC.\textsuperscript{112} The parties are not held accountable if the target dates are outdated or missing.\textsuperscript{113} Again, the GLWQA does contain a few specific requirements and programs but the goals are outdated.\textsuperscript{114} In theory, the GLWQA achieves accountability by forcing the parties to report their progress; however, the parties have not reported as required by the

\textsuperscript{109} See id. annexes 1-17 (addressing oil discharge from shipping vessels but failing to address which level of government or which agency is in charge of monitoring oil discharge).

\textsuperscript{110} See 13th Biennial Report, supra note 3, at 13 (offering suggestions for achieving greater accountability and creating a rigorous accountability plan to improve the quality of the Great Lakes).

\textsuperscript{111} See id. at 8 (explaining that the GLWQA contains few limits, thresholds, or schedules for action and that those included are outdated); see also Advice to Governments, supra note 8, at 7 (clarifying that due to its outdated text, tables, and timelines, the GLWQA does not address many of the new issues). But see GLWQA, supra note 11, art. VI, annex 1 (containing annexes that recognize the need for updates and changes). For example, Article VI calls for additional treatment when the original treatment is ineffective, and other areas of the GLWQA, such as annex 1, calls for updates when there are changes in technology, thus urging the parties to adopt the best technology available. Id, art. VI, annex 1.

\textsuperscript{112} See GLWQA, supra note 11, annex 2 (discussing RAPs and LaMPs).

\textsuperscript{113} See id. art. VI, annexes 1-2, 12, 14 (finding that some the last dates of required compliance were (1) Sept. 30, 1989, (2) Dec. 31, 1988 when parties must compile a list of three specific substance types, create programs for pollution from municipal sources, must report progress of RAPs and LaMPs, report on progress of eliminating persistent toxic substances, and meet certain requirements regarding contaminated sediment, (3) Dec. 31, 1988 and Oct. 1, 1988 when the parties must perform certain actions in connection with contaminated sediment and airborne toxic substances, (4) July 1, 1988 when the parties must consult on or before, (5) Apr. 1988 when the parties must make certain determinations regarding substances, and (6) Dec. 31, 1983 when parties must complete programs to stop pollution from industrial sources).

\textsuperscript{114} See id. arts. IV-VI (listing some requirements for the parties to achieve).
GLWQA for several years. Not reporting can stop progress under the GLWQA.

Another problem with accountability, which impedes implementation, is a lack of accountability for obtaining financial resources. The GLWQA does not dictate how much funding the parties should allot nor how to ensure that there are funds, but the GLWQA does state that financial assistance should come from several areas. Without funding, nor putting accountability on parties to obtain funding, the parties will not meet the objectives.

The GLWQA states that the parties must strive to make the Great Lakes free from substances that enter, materials that float in, materials that heat, and nutrients that enter the water as a result of human activity. Further, the GLWQA states, “all reasonable and practicable measures must be taken.” What are these measures? How far does the federal government, the state government, the provincial government have to go?

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115 See Advice to Governments, supra note 8, at 6 (declaring that parties and the IJC did not comply with reporting requirements articulated in the GLWQA, and the current requirements do not lead to effective and meaningful reporting); Billups et al., supra note 4, at 256, 280-81 (finding that neither party has identified, delineated, and reported every two years as required by Annex 2 of the GLWQA, and released reports lack detail, failing to adequately report on unsuccessful programs). The governments often ignore the reporting advice of the IJC, deciding to report less regularly than they have in the past, and accountability did not increase under the Protocol as desired. Id. at 283.

116 See GLWQA, supra note 11, art. X (requiring parties to discuss recommendations that stem from their reports with the IJC).

117 See, e.g., Billups et al., supra note 4, at 283-286 (finding that funding for the GLWQA has substantially increased since enactment but that the funding has decreased in recent years, particularly in Canada); see also Young, supra note 77, at 51 (claiming a major problem with the GLWQA is that it does not have resources to develop the RAPs and the LaMPs).

118 See GLWQA, supra note 11, art. II (declaring that local, state, provincial, and federal governments all need to contribute financial assistance to the GLWQA’s objectives); cf. Billups et al., supra note 4, at 278-97 (articulating that federal governments cut their budgets and pass responsibility onto states and provinces, who in turn cut their budgets and pass costs on to municipal governments).

119 Cf. Young, supra note 77, at 59-60 (stating that pollutions problems in the Great Lakes become harder to solve when there is a high cost required to fix them).

120 See GLWQA, supra note 11, art. III (noting examples of substances that may adversely affect the aquatic life or the water directly and thus its uses).

121 Id. art. IV.
The answers to these questions are unclear. Words such as “best efforts” and “effective measures,” are vague and undefined, failing to provide specific direction to the entities involved. The IJC, recognizing the urgent need for accountability, chose to focus its last biennial report entirely on the topic of accountability. Without accountability, the GLWQA is likely to stay at a standstill and the parties will not meet its objectives and address the challenges facing the Great Lakes.

B. The GLWQA Lacks Enforcement Mechanisms to Fully Achieve Its Agreed Upon Goals

International environmental agreements between the United States and Canada often fail to include enforcement mechanisms. The GLWQA lacks international enforcement because the EPA and Environment Canada have primary control of the execution of the GLWQA. Further, enforcement becomes very difficult as the parties increasingly take individualistic approaches to the problems of the Great Lakes.

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122 See id.; see also Billups et al., supra note 4, at 255 (questioning why the governments have not set timetables and plans for achieving toxin elimination).
123 See generally 13th Biennial Report, supra note 3, at 1-3 (arguing the need for an increase in accountability).
124 Cf. Billups et al., supra note 4, at 254 (doubting that the governments are willing to make innovative changes to eliminate toxins and believing that the governments will stick to the status quo, despite recommendations to do otherwise).
125 See 13th Biennial Report, supra note 3, at 8-11 (explaining that the parties have not met pollution control levels, set up monitoring systems or the monitoring systems are ineffective, or reported the results as required by the GLWQA); see also Posting of Emily Green to http://www.webdialogues.net/cs/ijc-greatlakes-discussionsview/dm/137 (Dec. 2, 2005, 13:22 EST) (arguing that the success of the GLWQA depends on knowing its goals and timelines).
126 Compare Dworsky et al., supra note 18, at 348 (analyzing Great Lakes issues and finding that the main issue concerning Canada-U.S. programs is a problem with program implementation, therefore, the governments must follow institutional structures, for example, enforcement standards, as originally agreed before the United States started creating policies individually), with Hall, supra note 27, at 160 (asserting that the inclusion of binding arbitration in the BWT is impressive because more recent agreements by the parties are deficient in enforcement provisions).
127 See Hall, supra note 27, at 148 (comparing the control the government agencies have to the IJC’s decreased power).
1. Parties Ignore and Fail to Complete the Objectives of the GLWQA because there is no Enforcement

The objectives of the GLWQA are not being achieved, nor enforced, leading to slow implementation of the GLWQA because of a lack of enforcement mechanisms. Several areas in the GLWQA address enforcement but enforcement mechanisms are missing. Article II conveying the policy of the parties, states, “Coordinating planning processes and best management practices [should] be developed and implemented by the respective jurisdictions to ensure adequate control . . . .” The GLWQA does not provide any more information, and without knowing which jurisdiction is accountable, no jurisdiction has the ability to enforce the provisions of the GLWQA, nor does the GLWQA give

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128 See Botts & Muldoon, supra note 7, at 135 (noting the United States is taking its own direction in the Great Lakes region, ignoring the point of the GLWQA—binational cooperation); cf. Gallagher, supra note 24, at 477 (stating that the EPA failed to consult with Canada or the IJC before making decisions that affected the Great Lakes, despite the importance of binational cooperation on shared resources). Even though the decisions and actions taken by the EPA under the U.S. Clean Air Act are positive and fair to those affected, all were not included in the decision making process as agreed to under the GLWQA. Id. There have been several attempts by Canada and the United States to comply with the GLWQA and incorporate the GLWQA into domestic law. See generally Arvin, supra note 24, at 147-161. Several inconsistencies between domestic law and the GLWQA have occurred as the United States takes an individual approach to water pollution. Gallagher, supra note 24, at 478-79.

129 See Weiss, supra note 3, at 375-76 (noting that having few disputes over the GLWQA is fortunate because there are no settlement tools). Because executive agreements are not binding domestically, difficulties arise for parties; see also parties. See Interview with Jim Chandler, Legal Advisor, International Joint Commission (June 28, 2007). As a practical matter, with time and financial constraints, domestic organizations attempting to comply with the GLWQA, are forced to put the GLWQA’s requirements, including reporting requirements, on the backburner until they complete all tasks required under federal law. Id. Because there is no domestic, legal requirement that progress reports be produced, they rarely are produced. Id. Therefore, the tools that would help the public hold governments accountable are not available. Id.

130 See infra notes 131-135.

131 GLWQA, supra note 11, art. II.
enforcement powers to jurisdictions. The GLWQA comes close, but falls short of creating enforcement mechanisms in other areas of the text as well. Article IV limits the powers of the “responsible regulatory agencies,” but does not give regulatory power to an agency. Article VI actually states that programs must have “effective enforcement” but does not give enforcement powers to organizations to achieve this goal.

Without enforcement mechanisms, the governments do not have to comply with regulations. As discussed in Part II(A), the little accountability built into the GLWQA, and the requirement to perform reviews and report on the results of actions is not completed because there are no enforcement mechanisms. The GLWQA relies on the reporting of results and achievements, but neither country nor the IJC have fully complied with this requirement. Currently, there is no mechanism other than the countries “best efforts” and domestic power under domestic law to ensure compliance with the GLWQA.

2. The IJC Lacks Substantial Capacity to Enforce the GLWQA

The closest the GLWQA comes to having an enforcement mechanism or body is the IJC and even the IJC falls short. Despite the position of the IJC to have enforcement powers, in actuality the IJC has

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132 See supra note 99 and accompanying text.
133 See GLWQA, supra note 11, arts. IV, VI.
134 See id. art. IV (subjecting the Specific Objectives of Annex 1 to requirements including adequate treatment).
135 See id. art. VI (listing programs and other measures).
136 See 13th Biennial Report, supra note 3, at 8 (doubting that new programs and progress have eliminated discharges of pollution from municipal and industrial sources as required by the GLWQA).
137 See GLWQA, supra note 11, art. X (stating parties must report on the effectiveness of implemented programs).
138 See 13th Biennial Report, supra note 3, at 11 (noting that the parties have not established effective monitoring systems).
139 See Caldwell, supra note 28, at 9-11 (observing that there is no enforcement authority controlling the Great Lakes environmental issues, although environmental organizations are pushing for new governance).
140 See infra Part II.B.2.
none. Article VII allows the IJC to investigate and analyze information, as well as compel the testimony of witnesses. However, reports by the IJC that answer the parties’ questions are “in no way to have the character of an arbitral award.” Therefore, even though the IJC gives their opinion, parties are not required to follow the IJC’s recommendations and thus the IJC has no enforcement powers. In recent years, reluctant governments have further prevented the IJC from using its powers. “The IJC will only be as strong and as effective as the Canadian and U.S. governments allow it to be.” The GLWQA also fails to create judicial enforcement powers in any other organization or government. Although judicial enforcement “has been essential to the ultimate implementation of

141 See Frank Quinn, Commentary, 33 NAT. RESOURCES J. 363, 364 (1993) (arguing that the revisions to the 1972 Agreement weakened the IJC’s authority).
142 See Boundary Waters Treaty, supra note 21, art. IX; GLWQA, supra note 11, art. VII (providing that most of the IJC’s responsibilities concern collecting, analyzing, and offering advice).
143 Boundary Waters Treaty, supra note 21, art. IX (declaring that the IJC shall make reports to both governments but the IJC cannot force either government to follow their advice); accord Spivak, supra note 46, at 917 (noting that IJC does not have implementation or enforcement powers).
144 See, e.g., Caldwell, supra note 28, at 9 (accepting that the IJC does not have political or enforcement powers, but may review and negotiate environmental issues). But cf. Stephen J. Toope and Jutta Brunnee, Freshwater Regimes: The Mandate of the International Joint Commission, 15 ARIZ. J. INT’L & COMP. L. 273, 276, 287 (1998) (arguing that some reporters believe strengthening the IJC’s enforcement powers is unrealistic because it lacks any enforcement power and undesirable because it may become less effective).
145 See Toope & Brunnee, supra note 144, at 275.
146 Gallagher, supra note 24, at 471-72 (noting a shift in responsibility for coordination of the GLWQA, including a requirement to meet, from the IJC directly to the parties); accord Toope and Brunnee, supra note 144, at 276 (arguing that both countries have intentionally attempted to prevent the IJC from having any independent jurisdiction although the countries claim to have committed themselves to the IJC). Enforcement provisions are needed so groups or individuals can hold the governments accountable in court. Id. However, Toope and Brunnee believe that if the IJC had more enforcement powers, the parties may choose to resolve issues through the political process instead, thereby decreasing the influence of the IJC. Id.
147 See GLWQA, supra note 11, arts. I-XV.
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many environmental laws and programs," it has not played a large role in the enforcement of the GLWQA. Relying on domestic courts is a sign of inadequate international enforcement mechanisms. However, enforcement is left almost entirely to domestic law.

3. Little Implementation Occurs Without Enforcement

Implementation of programs is critical to the GLWQA’s success. One of the goals of the GLWQA is “to improve management processes for achieving [GLWQA] objectives and to demonstrate firm

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148 See Green, supra note 5; cf. Hall, supra note 27, at 149 (arguing that the GLWQA lacks a “legally enforceable status in domestic courts” even thought litigation is often the only successful enforcement mechanism).

149 See Lake Erie Alliance for the Prot. of Coastal Corridor v. U.S. Army Corps of Eng’rs, 526 F. Supp. 1063, 1077 (D. Pa. 1981) (“[A]lthough the agreement [GLWQA] does not override federal law and is not legally binding within U.S. boundaries, it does represent a commitment of the U.S. to fulfill its terms. Consequently, the GLWQA must be considered in formulating federal policies and in making responsible decisions within the federal government.”) (citation omitted); See also Am. Iron & Steel Inst. v. EPA, 115 F.3d 979, 1001 (D.C. Cir. 1997) (deciding that the GLWQA does not require the EPA to explicitly state how they will accomplish virtual elimination because the GLWQA only sets goals without mandating reporting). But cf. Indiana Water Quality Coal. v. United States Env’t Prot. Agency, 2006 WL 467747 (Feb. 21, 2006) (acknowledging the Clean Water Act has similar goals to the GLWQA); Gallagher, supra note 24, at 485 (equating Great Lakes issues to the international air transportation issues in Pan American World Airways v. Civil Aeronautics Bd., 517 F.2d 734, 736 (2d. Cir. 1975), where the Second Circuit realized that foreign countries need to be included in decisions).

150 See Beth Stephens, Accountability for International Crimes: The Synergy Between the International Criminal Court and Alternative Remedies, 21 WIS. INT’L L.J. 527, 527 (2003) (discussing that in other international contexts, large players such as the International Criminal Court contribute to the success of treaties and hold actors responsible for violations).

151 See GLWQA, supra note 11, art. XI (noting that parties might need to enact additional legislation and work with state and provincial governments to carry out responsibilities under the agreement).

152 See Billups et al., supra note 4, at 252 (recommending governments continue to follow through with the agreements made under the GLWQA to develop and implement programs, while realizing the programs need enforcement mechanisms). But cf. Brunnee and Toope, supra note 61, at 30-31 (arguing that society’s push for increased enforcement may not have the anticipated end result of achieving the GLWQA’s goals).
leadership in the implementation of control measures . . . ."\textsuperscript{153} Article XI, Implementation, covers the responsibilities of the parties including seeking: (1) appropriation of funds, (2) the enactment of any needed additional legislation, and (3) the cooperation of state and provincial governments.\textsuperscript{154} The GLWQA provides no further enforcement advice or guidance.\textsuperscript{155} The lack of implementation, partially caused by a lack of enforcement, has several negative effects on GLWQA results.\textsuperscript{156} The GLWQA has a "sub-treaty status" which fails to have any enforcement mechanisms, and thus impedes implementation.\textsuperscript{157} Because the GLWQA is an executive agreement, with a sub-treaty status, the GLWQA is not binding under U.S. law because it did not have Congressional approval and therefore, U.S. participants are not forced to do their part.\textsuperscript{158} Most countries view international law as superseding domestic law, however, the United States believes that international law becomes part of the body of U.S. federal law and additional legislation can change the international law.\textsuperscript{159} Also, without the threat of enforcement or

\textsuperscript{153} GLWQA, \textit{supra} note 11.
\textsuperscript{154} See id. art. XI (noting that GLWQA requires funds to achieve end goals).
\textsuperscript{155} See id. art. XI.
\textsuperscript{156} Cf. Billups et al., \textit{supra} note 4, at 248 (finding that the governments still need to accomplish many of the objectives, including the elimination of critical pollutants).
\textsuperscript{157} See Hall, \textit{supra} note 27, at 149 (finding that attempts to enforce the GLWQA in U.S. courts have been largely unsuccessful); see also Posting of Frank Bevacqua to http://www.webdialogues.net/cs/ijc-greatlakes-agenda/view/dail52?x-t-summary.view (Dec. 1, 2005) (predicting that both an accountability framework and an effective governance structure would reduce the problems associated with the lack of treaty status).
\textsuperscript{158} See Gallagher, \textit{supra} note 24, at 478, n.110 (citing \textit{Implementation of the United States/Canada Great Lakes Water Quality Agreement: Hearing before the Subcomm. on Investigation and Oversight of the House Comm. on Public Works and Transportation, 100th Cong., 1st Sess. 10 (1987) at 13 (statement of Mark Van Putten, Director, Great Lakes Natural Resources Center, National Wildlife Federation)) (claiming EPA officials believe the "Agreement does not bind the EPA"); Hall, \textit{supra} note 27, at 149. \textit{But see} Gallagher, \textit{supra} note 24, at 478 (stating that Congress has declared the GLWQA binding as federal law).
\textsuperscript{159} Cf. Arvin, \textit{supra} note 24, at 149 (finding that the Great Lakes Water Quality Initiative, a domestic initiative, is the United States' first "significant step" towards implementing the GLWQA and meeting its goals because it attempts to create uniformity in state laws that touch or concern pollution in the Great Lakes region); Gallagher, \textit{supra} note 24, at 465, n.30 (noting a growing concern that the United States is no longer following the
enforcement mechanisms, government agencies do not provide the necessary funding for implementation and programs.\textsuperscript{160}

The GLWQA left the establishment of enforcement mechanisms up to the parties.\textsuperscript{161} Article VI, Programs and Other Measures, discusses under each sub-topic that it is up to the parties to establish effective enforcement programs to ensure full compliance with the requirements of the GLWQA.\textsuperscript{162} Parties have not set up enforcement mechanisms because the GLWQA does not require them to do so.\textsuperscript{163}

C. Case Study: Stopping the Invasion of Alien Invasive Species

The lack of accountability and enforcement mechanisms within the GLWQA is demonstrated by the problem of an increasing number of alien invasive species entering the Great Lakes.\textsuperscript{164} A discovery of a new species in the region occurs about once every six weeks.\textsuperscript{165} Some, including the State of Michigan, are pushing to require all ocean-going ships to test their ballast waters before entering the Great Lakes to ensure they that are not bringing in new species.\textsuperscript{166} This raises many legal issues, including the

\textsuperscript{160} See Billups et al., supra note 4, at 268-69 (stating litigation is beneficial in that parties can obtain needed funding but litigation is costly and time consuming).

\textsuperscript{161} See infra note 162 and accompanying text.

\textsuperscript{162} See GLWQA, supra note 11, art. VI.

\textsuperscript{163} Cf. id.

\textsuperscript{164} Cf. 13th Biennial Report, supra note 3, at 1-3; Synthesis of Public Comment, supra note 72, at 23-24 (noting that there is a problem of invasive aquatic species and the current GLWQA does not provide coverage for dealing specifically with these species). A clear solution to the alien invasive species problem is not easy to find because no one is accountable, nor is the GLWQA set up in a way that the IJC or some other body can hold violators responsible for contributing to the problem of introducing new species to the Great Lakes. Id.

\textsuperscript{165} See, e.g., Dan Egan, Ban Ocean Vessels in Lakes? Some are Floating the Idea, JOURNAL SENTINEL ONLINE (Apr. 21, 2007), http://www.jsonline.com/story/index.aspx?id=594384; cf. 12th Biennial Report, supra note 9, at vi (finding that ocean-going vessels introduce a new species to the Great Lakes about once every eight months).

\textsuperscript{166} See Egan, supra note 165 (explaining that the goal is not to stop ocean-going traffic, just to regulate the traffic).
fact that individual states must coordinate with each other as well as with Canada.\footnote{See id. (discussing both Michigan’s attempt to take regulation of vessels into its own hands and shippers’ attempt to use the legal system to block the new laws which would be very costly for shippers).}

The GLWQA’s Annex 6 specifically addresses the review of pollution from shipping sources.\footnote{See GLWQA, supra note 11, annex 6 (noting that the Canadian and U.S. Coast Guards should review services, systems, programs recommendations, and standards related to shipping).} The Annex states that there should be a “review of practices and procedures regarding waste water and their deleterious effect on water quality, including . . . studies to determine if live fish or invertebrates in ballast water discharges into the Great Lakes System constitute a threat to the System.”\footnote{See id.} Although the GLWQA places responsibility for the review of such activities on the Canadian and U.S. Coast Guards, there are problems because the Coast Guards may need help addressing and financing this task and again, there is no enforcement mechanism.\footnote{See id.; see also 12th Biennial Report, supra note 9, at 20 (noting that aquatic alien species are providing a major challenge to the GLWQA and its institutional capacity). In addition, the global nature of the shipping industry and the potential involvement of a large number of agencies complicate the governments’ responses. Id.} The IJC has recommended that the countries coordinate with each other to take actions that will reduce, if not eliminate, the continued contamination of the Great Lakes by alien species, but this has yet to occur.\footnote{See 12th Biennial Report, supra note 9, at vi.} As species continue to enter the Great Lakes, it will become impossible to return the ecosystem to one without human interference.\footnote{See PETER ANNIN, THE GREAT LAKES WATER WARS 106-07 (Island Press 2006) (explaining that exotic species are included in discussions about water diversion because they substantially influence ecosystems, spreading rapidly when introduced into areas without natural controls).}
III. RECOMMENDATIONS

In the international effort to revise the GLWQA, the parties should drastically change and update the text of the GLWQA. The parties need to add both accountability and enforcement mechanisms so that the GLWQA sufficiently protects the Great Lakes. In addition, increasing public participation is critical to the success of the Great Lakes Ecosystem and the GLWQA. Without the increased accountability, enforcement, and public participation, the United States and Canada can disregard responsibilities under the GLWQA and the world could lose an extremely valuable resource.

A. Increase Accountability to Increase Progress

The parties should address accountability in a very precise way. Federal governments should be accountable for directing all activity, since the activity occurs, at a minimum, binationally. It then can be up to the federal governments to delegate accountability and responsibility to the states and provinces as they see fit.

It is critical to have goals, and therefore these goals should exist within a strong accountability framework. “Successfully implemented,
accountability focuses action on end goals and ensures that promises are kept and commitments are honored. The best accountability frameworks specify measurable results, the actions to be taken, by whom and by when, how reporting back will occur and the consequences of inaction.” 180 In the ongoing review of the Great Lakes, it is necessary for the GLWQA to specify exactly who is responsible for the implementation of specific goals.181

To account for changing circumstances, the parties need to update the goals periodically.182 IJC recommends a more drastic approach, proposing the creation of an entirely new agreement that would more easily allow for the updating of goals.183 The parties should base the goals and timelines on the findings of the Great Lakes reports, which each party must complete biennially using specific language. For example, possible changes include: (1) allowing less of the toxic substances in the Annexes’ limits, (2) specifying the deadline for accomplishing these limits, (3) stating what government or group needs to accomplish the task, and (4) specifying the tasks that must be completed to lower the level of toxic waste in the Great Lakes.184 The United States has often refused to approve international treaties and agreements with strong accountability factors but this may change.185 Increasing accountability, by making a stronger framework, will help the IJC and others, including the public,
hold the governments and organizations accountable to the terms of the GLWQA.\textsuperscript{186}

\textbf{B. Increase Enforcement Mechanisms to Increase Results}

The more enforcement power backing the GLWQA, the more the requirements will be met, and the more the world will reap the benefits of the Great Lakes Region. In the review process, the parties should change the text of the GLWQA to include enforcement mechanisms.\textsuperscript{187} The parties can do this by increasing the power of the IJC or by creating an entirely new, third party adjudicatory body, so that control of the Great Lakes is more global.\textsuperscript{188} Alternatively, the parties can increase enforcement power of the GLWQA by bringing the GLWQA to the attention of Parliament and Congress.\textsuperscript{189}

The enforcement capabilities of the GLWQA will be increased if the IJC has more reviewing and investigating power within the provisions of the GLWQA.\textsuperscript{190} This better enables the IJC to influence the parties as they attempt to create legislation for the implementation of the

\textsuperscript{186} See Kagan, \textit{supra} note 77, at 44 (declaring it is the IJC's responsibility to hold the governments accountable and if parties provide more funding to the IJC, it will increase the IJC's ability to give informed reports to the governments and public); \textit{cf.} Becker, \textit{supra} note 55, at 271 (arguing that increasing the public's ability to hold the parties accountable is important in the revision of the GLWQA).

\textsuperscript{187} See infra Part III.B.

\textsuperscript{188} See GLWQA, \textit{supra} note 11, art. II (assessing the need for the parties to use effected jurisdictions to ensure control of pollutants). \textit{But see supra} note 80 (arguing that the United States will not enter into a binding agreement where it can be held accountable by an international adjudicatory body).

\textsuperscript{189} See infra note 200 and accompanying text.

\textsuperscript{190} See \textit{Synthesis of Public Comment, supra} note 72, at 14 (encouraging the review process to insert provisions into the GLWQA that allow the IJC, state and provincial governments, NGOs, and citizens of both countries the power to enforce the GLWQA); Becker, \textit{supra} note 55, at 267-68268 (arguing that a binational approach under the IJC is not only essential but also more beneficial than separate approaches by each party or jurisdiction). \textit{But see Toope \& Brunnee, supra} note 144, at 276 (arguing that changing the enforcement powers of the IJC is not desirable because it is overly ambitious and thus likely to lead to making the IJC ineffective).
GLWQA. The IJC acting as an adjudicatory agency is even more beneficial and forces both the United States and Canada to comply. However, it is unlikely at this time that the United States would enter into a “binding international treaty that subjects it-or its industries-to international adjudication to enforce environmental standards.” Additionally, as previously discussed both countries fought to prevent the IJC from gaining any independent powers, and curtailed the powers the IJC did have, and in recent years have actually put most of the responsibilities in their own hands rather than in the IJC. Since the IJC is unlikely to assume a role as an adjudicative body in the near future, the parties should stop limiting the IJC’s powers and allow the IJC to function as a review and investigating board so that the GLWQA has some enforcement capabilities. Further, the text should allow the IJC to assist

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192 See Gallagher, supra note 24, at 466446 (encouraging Congress to “use its delegation power to establish international rulemaking power in the IJC”); cf Spivak, supra note 46, at 917-18 (declaring that organizations with more legal powers than the IJC like the European Community—a supranational organization which takes precedence over members national law—may be more effective at protecting environmental interests).
193 Hall, supra note 27, at 159-60 (noting that people who do not want the GLWQA and the IJC to have more enforcement powers argue that no change is needed because citizens can sue companies and industries in federal court under domestic law rather than relying on the federal government to make progress); Weiss, supra note 3, at 383382 (explaining that although the United States does not like to submit to final arbitration, there is evidence that this is changing). But see Hall, supra note 27, at 132 (noting that governments may be wary of bringing claims against other governments for fear of setting “undesirable precedents” or of retaliation).
194 See supra Part II.B.2.
195 See Toope & Brunnee, supra note 144, at 276, 282, 287-280 (arguing that the IJC is only as powerful as the countries decide it to be and that the IJC lacks independent enforcement powers and should not be turned into an adjudicatory agency).
196 See Hall, supra note 27, at 148 (finding that there is no international control because the GLWQA is in the hands of Environment Canada and the U.S. EPA); cf Advice to Governments, supra note 8, at 1 (encouraging the establishment of a Steering Committee involving heads of federal departments and agencies to help with implementation rather than giving adjudicative power to the IJC).
197 See supra notes 194-196 and accompanying text.
in mediation between the parties, jurisdictions, and stakeholders. 198 Although it would be beneficial to have the IJC or some other entity, serve as a neutral, legal enforcement body to solve the disputes surrounding the GLWQA, this is unlikely, therefore, it is better to increase the IJC’s reviewing and investigatory powers than do nothing at all. 199

As the parties continue to attempt to solve the Great Lakes problems through their domestic laws, the parties and the IJC should bring the GLWQA to the attention of Congress and Parliament. 200 Congress and Parliament, rather than smaller, less powerful NGO’s, are in the best position to ensure the completion of requirements. Again, a supranational adjudicatory body, where citizens can bring claims against other countries, is likely to be successful but unlikely to be agreed to by the parties. 201 Therefore, a change in the text of the GLWQA must increase the enforcement powers the IJC already has and the parties must bring the GLWQA to the attention of Congress and Parliament. 202

C. Public Support: A Partial Solution to Accountability and Enforcement

Parties, groups, and individuals must increase public support. 203

198 See Becker, supra note 55, at 271 (arguing that incorporating the public into the IJC’s existing structure will help increase the mediation powers of the IJC).

199 See Weiss, supra note 3, at 379 (encouraging dispute resolution systems to be put in place before the number of disputes increase); Interview with Jim Chandler, supra note 129 (speculating that the IJC is not in a position nor looking to be a court to the GLWQA, but would rather continue focusing on its strengths, such as making recommendations to the parties).

200 See Interview with Jim Chandler, supra note 129 (explaining that Congress has more power than current international laws to ensure the enforcement of the GLWQA and it is the IJC’s hope that the adoption of a new agreement will give the GLWQA a higher profile). Congress should endorse the new agreement and hold periodic oversight hearings. Id. Congress and Parliament’s endorsement of the proposed new agreement facilities accountability, implementation, and cooperation. See Advice to Governments, supra note 8, at 15.

201 See supra Part III.B.

202 See supra Part III.B. But see Hall, supra note 27, at 132, 159-60 (arguing that there are other mechanisms that can ensure compliance other than legal enforcement).

203 See Advice to Governments, supra note 8, at 6 (encouraging more public involvement by allowing the public to become more involved in meaningful ways); Brunnee & Toope,
Currently, public concerns are growing more diversified and there is uncertainty as to whether the GLWQA will be able to address these concerns.\textsuperscript{204} The laws, regulations, and policies involving the Great Lakes need to have more unity so that the public can use them to its advantage.\textsuperscript{205}

Public participation can help increase both accountability and enforcement of the GLWQA. The GLWQA has not succeeded in holding governments accountable to the public.\textsuperscript{206} Public concern is beneficial for accountability\textsuperscript{207} because government accountability increases when public participation increases.\textsuperscript{208} Also, with a lack of traditional legal court enforcement backing the GLWQA, strong citizen participation encourages the governments of the countries to comply with the regulations.\textsuperscript{209} If the public must enforce the GLWQA through domestic law, the public must know of the existing laws.\textsuperscript{210} Groups that oppose relying on the federal governments to enforce the GLWQA argue that citizens can bring claims in federal court without waiting for the federal

\textsuperscript{204}See Becker, supra note 55, at 272 (arguing that the public needs to become more effective); Caldwell, supra note 28, at 21.
\textsuperscript{205}See, e.g., Caldwell, supra note 28, at 17-18 (discussing the publics’ failure to use law, regulations, and policies to its benefit, to influence enforcement, or to know if its interests are protected because of a lack of unity in the available sources); cf. Becker, supra note 55, at 257 (noting demand by citizens for the parties to turn the GLWQA into something enforceable by law); Brunnee & Troope, supra note 61, at 28 (maintaining that continued cooperation between different groups and the public could lead to binding legal norms).
\textsuperscript{206}See Advice to Governments, supra note 8, at 15 (arguing that the public cannot hold the government accountable if they do not have the necessary information); see also Billups et al., supra note 4, at 250-51 (finding that the U.S. government agreed to consult with the public on LaMPs projects but has neither involved the public nor distributed materials to the public).
\textsuperscript{207}See Becker, supra note 55, at 238 (noting that public participation, particularly for environmental policies, is critical for implementation and support of the public policies as well as ensuring accountability).
\textsuperscript{208}See Hall, supra note 27, at 150.
\textsuperscript{209}See id. at 159 (debating whether judicial enforcement is the best compliance mechanism in the realm of international law).
\textsuperscript{210}See Advice to Governments, supra note 8, at 19 (urging the parties to adopt a “Binational Action Plan” that would explicitly state which federal, state, and provincial laws, regulations, and programs to use in implementing the GLWQA).
government; however, the GLWQA has not been successful in domestic courts. It is up to the IJC to make sure that the public is fully involved with discussions, aware of the parties’ progress, and in a position to force the parties to comply. It is important that the public interact with the government to help with the Great Lakes programs. The IJC recommends increasing public involvement as well. The GLWQA should require the IJC to set up more forums and the parties to set up domestic agencies, allowing the public to voice its concerns and help make decisions on a continuous basis. It is up to the IJC and the countries to decide what the goals need to be and what is important for the Great Lakes. However, without specific references to who is accountable and who has the ability and power to punish those that do not comply, the parties will not achieve these objectives. Because it appears that the parties are not likely to

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211 See Lake Erie Alliance for the Prot. of Coastal Corridor v. U.S. Army Corps of Eng’rs, 526 F. Supp. 1063, 1077 (D. Pa. 1981); see also Am. Iron & Steel Inst. v. EPA, 115 F.3d 979, 1001 (D.C. Cir. 1997) (finding that neither case was able to win on their GLWQA claim, although the courts did recognize that industries and organizations must respect and consider the GLWQA).

212 See Advice to Governments, supra note 8, at 26 (deciding that as more industry and environmental groups become involved in the Great Lakes it is the job of the IJC to ensure that the groups have an ability to share information); Becker, supra note 55, at 242, 273 (recognizing the IJC’s inclusion of the public, including public hearings, open boards, IJC biennial meetings, and increased public education, will help solve the problems of the Great Lakes); cf. ANA BARREIRA, IMPLEMENTING TRANSBOUNDARY RIVER CONVENTIONS: WITH EMPHASIS ON THE PORTUGUESE-SPANISH CASE: CHALLENGES AND OPPORTUNITIES 451, 452 (Luso-American Development Foundation 2003) (defining public participation as individuals and NGO’s participating in the decision-making process, noting that the public needs to have sufficient information).

213 See Advice to Governments, supra note 8, at 6 (noting the separation between the public and the GLWQA, including a lack of awareness).

214 See id. at 2, 5, 6 (urging more public involvement in the Great Lakes Basin Ecosystem).

215 Cf. Becker, supra note 55, at 238 (noting major strategies to involve the public include sharing information, giving citizens legal rights to sue, engaging citizens through planning and mutual accountability, and using the public for “reactions”). The creation of advisory boards for each lake is one way to ensure continued participation. Id.

216 See GLWQA Agreement, supra note 11, arts. II, VII.

217 See supra Part II.A-B.
accept an international enforcement body at this time, it is critical to increase public participation.\textsuperscript{218}

CONCLUSION

The GLWQA has encouraged international cooperation and greatly improved the quality of not only the Great Lakes Ecosystem, but also other environmental ecosystems around the world.\textsuperscript{219} Although the GLWQA has been somewhat successful, countries need to preserve the future of the environment and its people by working cooperatively and creatively. Legally, this means ensuring that there are mechanisms in place to enforce and comply with environmental legislation.

The GLWQA needs stronger mechanisms for both accountability and enforcement to achieve its objectives.\textsuperscript{220} Increasing public participation is one way to ensure accountability by the parties and enforcement of objectives.\textsuperscript{221} The governments of the United States and Canada, as well as the people, need to make continuous progress under the GLWQA so that the next generations can eat the fish in the Great Lakes and swim in its waters.

\textsuperscript{218} See Advice to Governments, supra note 8, at 5 (arguing that the GLWQA’s plans should include residents and the public, thereby enabling more involvement in the restoration effort of the Great Lakes region).

\textsuperscript{219} See Young, supra note 77, at 51 (finding that the GLWQA has encouraged regulations that have increased the quality of the Great Lakes water and has served as a model for other countries to follow).

\textsuperscript{220} See Green, supra note 125.

\textsuperscript{221} See supra Part III.C.