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Rethinking the Great Lakes Compact

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RETHINKING THE GREAT LAKES COMPACT

*Mark Squillace**

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A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power over it.

Justice Oliver Wendell Holmes, *New Jersey v. New York*, 283 U.S. 336 (1931)

INTRODUCTION

On December 13, 2005, the Governors and Premiers of the Great Lakes states and provinces signed a Compact and Agreement designed to honor the commitments made in the Great Lakes Charter Annex of 2001.¹ The proposed compact commits the parties to a rigorous program to regulate individual water uses, with citizen suits to enforce the requirements.²

The Great Lakes-St. Lawrence River Basin Water Resources Compact, as it is officially titled, has much to commend it. The parties established generally sound goals and followed an exemplary process that effectively engaged stakeholders. For example, when opposition began to build on the Canadian side to the first set of documents, the parties pulled back and renegotiated.³ Moreover, the regulation of individual water uses is long overdue in some states, most notably Michigan, which is the only state that is almost entirely within the Great Lakes Basin. Momentum is now building to ratify the compact and obtain congressional approval.⁴ Despite its positive aspects, those who care about the future of the Great Lakes must urge policymakers to reject the current proposal and rethink the entire approach. The proposed compact is a fundamentally flawed document that

1. Great Lakes-St. Lawrence River Basin Water Resources Compact, Dec. 13, 2005, http://www.cglg.org/projects/water/docs/12-13-05/Great_Lakes-St_Lawrence_River_Basin_Water_Resources_Compact.pdf (last visited Dec. 9, 2006) (hereinafter, Great Lakes Compact); Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement, Dec. 13, 2005, http://www.cglg.org/projects/water/docs/12-13-05/Great_Lakes-St_Lawrence_Basin_Sustainable_Water_Resources_Agreement.pdf. (hereinafter, Great Lakes Agreement) The focus of this essay will be on the Compact though much of the analysis applies equally to the Agreement.

2. Great Lakes Compact, §§4.10-11; 7.3

3. Ontario refused to sign the initial draft of the Great Lakes Charter Annex on the grounds that it permitted diversions. Nonetheless, Ontario continued negotiations in order to gain veto power to block diversions. "Ontario Demands Tougher Protection for Great Lakes in U.S. Deal." *Detroit Free Press*, November 15, 2004, available at http://www.greatlakesdirectory.org/on/111404_great_lakes.htm

4. Indeed, the Ohio House voted on December 13, 2006 to pass the Great Lakes-St. Lawrence River Basin Water Resources Compact by a margin of 81-5. However, the compact landed in the Senate Rules Committee, where unwanted bills sometimes die. *Journal Gazette*, "Speculations Could Dry Up Great Lakes Water Accord." December 15, 2006, available at <http://www.fortwayne.com/mlld/fortwayne/news/local/16247202.htm> (last visited January 5th, 2007)

will not achieve the ultimate stated goal of protecting and conserving the water resources of the Great Lakes.

This Article briefly recounts the background of the law relating to the water resources of the Great Lakes, with a particular focus on the recent negotiations that led to development of the compact.⁵ It then describes the terms of the proposed compact and its structural flaws and limitations.⁶ Finally, it suggests an alternate framework that is more likely to achieve the important and widely-shared goals for promoting the sound management of the water resources of the Great Lakes Basin.⁷

I. BACKGROUND

By almost any measure, the Great Lakes are an extraordinary natural resource. Those who have studied issues involving the Lakes are familiar with the statistics. They contain approximately twenty percent of the world's fresh surface water and almost eighty-five percent of North America's fresh surface water.⁸ Spread evenly across the continental United States, the water would be nearly ten feet deep.⁹ The Great Lakes are sometimes described as a non-renewable resource because less than one percent of the Great Lakes is renewed each year.¹⁰ But one percent of the Great Lakes is nearly 60 trillion gallons of water—more than thirteen times the average annual flow of the Colorado River.¹¹

The states and provinces bordering the Great Lakes are home to more than 40 million people.¹² The Great Lakes shoreline extends over 10,000 miles and includes about 35,000 islands.¹³ Due to their size, beauty, and proximity to people, the Lakes offer outstanding recreational opportunities. The eight Great Lakes States are home to approximately 3.7 million regis-

5. See *infra* Part I.

6. See *infra* Part II.

7. See *infra* Part III.

8. Statistics on the Great Lakes can be found at <http://www.epa.gov/glnpo/statsrefs.html>.

9. See Overview of Great Lakes, available at <http://www.great-lakes.net/lakes/>.

10. See International Joint Commission, Protection of the Waters of the Great Lakes: Final Report to the Governments of Canada and the United States (2000) (hereafter, IJC 2000 Report), available at <http://www.ijc.org/php/publications/html/finalreport.html> (last visited, January 5, 2007).

11. David H. Getches, Competing Demands for the Colorado River, 56 U. Colo. L. Rev. 413, 413-479 (1985). Professor Getches notes that “[d]ata spanning three centuries ... reveal an average annual flow of ... 13,500,000 acre-feet.” This is equivalent to an annual flow of nearly 4.4 trillion gallons of water. Thirteen times this flow equals 57.2 trillion gallons. The IJC 2000 Report notes that 162 billion gallons of water per day is renewable. This is the equivalent of more than 59 trillion gallons of water. See IJC 2000 Report, *supra* note 10, Section 10 at 42.

12. IJC 2000 Report, *supra* note 10, Section 2 at 6.

13. <http://www.glerl.noaa.gov/pr/ourlakes/facts.html>

tered recreational boats, or almost one-third of the total registered recreational boats in the United States.¹⁴ The Lakes also support a four billion dollar commercial and sport fishing industry.¹⁵ The Great Lakes are truly an unparalleled natural and recreational treasure and their management should reflect their incalculable value to society.

A. The Law of the Lakes

The starting point for understanding the law of the Great Lakes is the Boundary Waters Treaty of 1909 (the “Treaty”).¹⁶ The Treaty was designed “to make provision for the adjustment and settlement” of past and future disputes that might arise between Canada and United States involving its boundary waters.¹⁷ Under the Treaty “questions or matters of difference” may, by the consent of both parties, be referred to the International Joint Commission (IJC), which is the agency established by the Treaty to administer its terms, either “for examination or report,”¹⁸ or “for decision.”¹⁹ The IJC consists of three commissioners from each country, and it may decide matters referred to it by majority vote, or if it is unable to reach a decision, by referral to “an umpire” chosen in accordance with the Hague Convention.²⁰ The umpire is empowered to render a final decision.²¹ Although the parties have referred matters to the IJC for examination and report,²² they have never consented to an IJC referral to resolve a dispute.²³ Thus, while

14. http://www.great-lakes.net/teach/envt/fish/fish_2.html

15. See *supra* note 13. Additional details about the Great Lakes and their remarkable assets are found in PETER ANNIN, *THE GREAT LAKES WATER WARS* (2006). Annin also recounts at length the background and history of the negotiations that led to the adoption of the compact and agreement.

16. Boundary Waters Treaty, Jan. 11, 1909, United States-Great Britain (for Canada), 36 Stat. 2448.

17. *Id.* (Preamble)

18. *Id.* at Article IX.

19. *Id.* at Article X.

20. *Id.*

21. *Id.*

22. The United States and Canada first referred a matter to the IJC in 1912. This referral related to international concern over a waterborne typhoid endemic and resulted in a comprehensive report issued in 1918 calling for the construction of water treatment plants in urban areas. The most recent referral to the IJC occurred in 1998 in relation to a proposal by the Nova Group of Sault Ste. Marie, Ontario to export bottled water. This resulted in the IJC 2000 final report on the Protection of the Waters of the Great Lakes. For a more detailed account of referrals to the IJC, see Daniel K. DeWitt, *Great Words Needed for the Great Lakes: Reasons to Rewrite the Boundary Waters Treaty of 1909*, 69 *IND. L.J.* 308-14 (1993).

23. Noah D. Hall, *Toward a New Horizontal Federalism: Interstate Water Management in the Great Lakes Region*, 77 *U. COLO. L. REV.* 405, 418 (2006).

the IJC has played an important role in promoting scientific understanding of issues affecting the Great Lakes, its role has been largely advisory.²⁴

The Treaty defines boundary waters in limited fashion to encompass only those lakes and rivers along the international boundary, and specifically includes tributaries to these waters.²⁵ Under this definition, Lake Michigan, which does not border any part of Canada, falls outside the scope of the Treaty even though hydrologically it is considered to be part of the same water body as Lake Huron, a major boundary water.²⁶ Ironically, perhaps, Lake Michigan has been the site of one of the most controversial projects on the Great Lakes—the Chicago River diversion. This project, which reversed the flow of the Chicago River away from Lake Michigan to carry Chicago’s sewage into the Mississippi River basin, has been the subject of numerous U.S. Supreme Court decisions.²⁷ As a result of these cases, the diversion of Lake Michigan water into the Chicago River is limited to 90 cubic meters per second (cms) of water.²⁸ To be sure, this is a substantial diversion that has a measurable impact on lake levels.²⁹ Still, it is a far cry from the peak diversions of 240 cms that Chicago had reached in the mid-1920s.³⁰ Despite its importance to lake levels, the proposed compact effectively exempts the Chicago River diversion and offers no incentives to promote its better management.³¹

24. Article X of the Treaty authorizes the United States and Canada to refer substantive matters to the Commission for decision, and if the Commission is equally divided, the Commissioners must refer the matter to an umpire chosen in accordance with the Hague Convention for the pacific settlement of international disputes. The IJC has never exercised this authority, however, because it has never received the referral from both countries that is required to initiate the process. For more information, see Dewitt, *supra* note 22 at 308-314.

25. Boundary Waters Treaty, *supra* note 3, Preliminary Article.

26. Toward a Water Resource Management Decision Support System for the Great Lakes-St. Lawrence River Basin, at 28, available at <http://www.glc.org/wateruse/wrmdss/finalreport/pdf/WR-Ch.2-2003.pdf> (last visited January 5, 2007).

27. *Wisconsin v. Illinois*, 449 U.S. 48 (1980); *Wisconsin v. Illinois*, 388 U.S. 426 (1967); *Wisconsin v. Illinois*, 289 U.S. 395 (1933); *Wisconsin v. Illinois*, 281 U.S. 696 (1930); *Wisconsin v. Illinois*, 281 U.S. 179 (1930); *Wisconsin v. Illinois*, 278 U.S. 367 (1929). See also Annin, *supra* note 15, at 85-109.

28. See *Wisconsin v. Illinois*, 278 U.S. at 417; *Sanitary Dist. of Chi. v. United States*, 266 U.S. 405, 413 (1925). This figure is often expressed in cubic feet per second (cfs). Ninety cms equals 3,200 cfs.

29. See IJC 2000 Report, *supra*, n. 10 at Table 3, (showing a reduction in lake levels for Lakes Huron and Michigan of 6 centimeters), available at <http://www.ijc.org/php/publications/html/finalreport.html> (last visited, December 21, 2006)

30. This is the equivalent of 8,500 cfs. See *Wisconsin v. Illinois*, 449 U.S. 48 (1980); *Wisconsin v. Illinois*, 388 U.S. 426, 427 (1967); *Wisconsin v. Illinois*, 289 U.S. 395 (1933).

31. Great Lakes Agreement, *supra* note 1 at Article 207, ¶10.

Complementing the work of the IJC is the Great Lakes Commission, established under the original Great Lakes Basin Compact of 1968.³² Like the IJC, the Commission's role is essentially limited to gathering data and making non-binding recommendations. In considering the prospects for the proposed new compact, it is instructive to consider that despite its limited scope, it took nearly twenty years for Congress to approve the Great Lakes Basin Compact. In 1955, the five states of Illinois, Indiana, Michigan, Minnesota, and Wisconsin ratified the compact.³³ Pennsylvania joined the following year, New York signed on in 1960, and Ohio ratified the compact in 1963.³⁴ Congress did not finally consent to the compact until 1968.³⁵

The history of the current compact negotiations begins with the Great Lakes Charter of 1985.³⁶ This non-binding agreement among the eight American states and two Canadian provinces within the Basin commits the parties "to conserve the levels and flows of the Great Lakes and their tributary and connecting waters" and "to protect and conserve the environmental balance of the Great Lakes Basin ecosystem."³⁷ To achieve these goals, the Charter sets forth five principles: (1) integrity of the Great Lakes Basin; (2) cooperation among jurisdictions; (3) protection of the water resources of the Great Lakes; (4) prior notice and consultation; and (5) cooperative programs and practices.³⁸ The parties proposed to accomplish their goals by: collecting and maintaining a common database "regarding the location, type, and quantities of water use, diversion, and consumptive use" for all withdrawals in excess of 100,000 gallons per day; by regulating water withdrawals in excess of two million gallons per day; and by providing prior notice and consultation with the other parties on new diversions or consumptive uses in excess of five million gallons per day.³⁹ Any party that fails to comply with the Charter is not entitled to prior notice and consultation as set forth in the

32. Great Lakes Basin Compact at Article IV.

33. Great Lakes Commission. Records, 1955-1965. Milwaukee Manuscript Collection CX. Wisconsin Historical Society. Milwaukee Area Research Center. UWM Meir Libraries. University of Wisconsin-Milwaukee.

34. *Id.*

35. *Id.*

36. The Great Lakes Charter: Principles for the Management of Great Lakes Water Resources (1985), *available at* <http://www.cglg.org/projects/water/docs/GreatLakesCharter.pdf> (last visited January 1, 2007).

37. *Id.* Among the other purposes set forth in the Charter are – "to provide for a cooperative programs and management of the water resources of the Great Lakes Basin...; to make secure and protect present development within the region; and to provide a secure foundation for future investment and development within the region."

38. *Id.* at Principle I through Principle V.

39. *Id.* at Principle V. *See also* Annin, *supra* note 15, 72-75.

Charter.⁴⁰ This modest sanction has proved insufficient to incent the states and provinces to comply with the Charter's mandate.

In 2001, the parties agreed to an Annex to the 1985 charter that reaffirms the Charter's five principles and further commits the parties to develop "an enhanced water management system that is simple, durable, efficient, retains and respects authority within the Basin, and *most importantly*, protects, conserves, restores, and improves" the water resources of the Great Lakes Basin.⁴¹ The Annex sets out six directives.⁴² First and foremost, it provides for the preparation of a new set of Basin-wide, binding agreements designed to achieve the Charter and Charter Annex goals.⁴³ It commits the parties to a broad-based public process.⁴⁴ It directs the parties to establish a "new decision making standard" to be used for new withdrawals.⁴⁵ It commits the governors of the Great Lakes states to consult with the premiers of the Great Lakes provinces pending finalization of the agreements.⁴⁶ It requires the parties to develop a decision support system that ensures access to the best available information on the water resources of the Great Lakes.⁴⁷ Finally, it commits the parties to a series of additional measures designed to help achieve the overall goals of the Charter and Annex.⁴⁸

Before turning to the proposed compact that resulted from the Charter and Annex, one additional law must be noted. The Water Resources Development Act of 1986 (WRDA) is a remarkable piece of protectionist legislation that prohibits out-of-basin diversions of Great Lakes water without the approval of the governors of all eight Great Lakes Basin states.⁴⁹ While the

40. *Id.* at Progress Towards Implementation.

41. The Great Lakes Charter Annex: A Supplementary Agreement to the Great Lakes Charter (2001) (emphasis added), *available at* <http://cglg.org/projects/water/docs/GreatLakesCharterAnnex.pdf> (last visited, Jan. 20, 2006) (hereafter, Great Lakes Charter Annex).

42. *Id.*

43. *Id.*, Directive # 1.

44. *Id.*, Directive # 2.

45. *Id.*, Directive # 3.

46. *Id.*, Directive # 4.

47. *Id.*, Directive # 5.

48. *Id.*, Directive # 6.

49. Water Resource Development Act of 1986, 42 U.S.C. §1962d-20 (2000). Peter Annin quotes R. Timothy Wesson, an attorney from Pennsylvania who helped draft the Great Lakes Charter, describing WRDA as "an abomination.... It's really one of the worst pieces of legislation created....It provides no due process, it provides no standards, [and] it creates an entirely political and unaccountable arrangement for casting vetoes—which is one of the silliest ways for managing natural resources imaginable." Annin, *supra* note 15 at 80-81. James Lochhead, a Denver attorney who prepared a report for the Great Lakes governors in 1999, argued that the veto provision of WRDA violated the commerce clause as well as perhaps the due process clause and international trade laws. James S. Lochhead, et al., Report to the Council of Great Lakes Governors, Governing the Withdrawal of Water from the Great Lakes (May 18, 1999). *See also*, *Sporhase v. Nebraska*, 458 U.S. 941 (1982) (striking

policy arguments offered to support this law focus on the remote prospect that Western states are looking to the Great Lakes to sate their desire for new water supplies,⁵⁰ the law has proved most problematic for the Great Lakes states themselves.⁵¹ In particular, Michigan, which is the only state or province almost entirely in the Basin and which cannot benefit from using Great Lakes water outside the Basin, has shown a willingness to use WRDA to trump the right of other Great Lakes states to provide modest drinking water supplies for communities along the fringes of the Basin.⁵² As explained below, while the proposed compact makes a nod in the direction of these “straddling communities,” the restrictions on out-of-basin uses remain extremely burdensome without any clear justification in terms of the benefits to water resource protection and conservation.

B. The Great Lakes-St. Lawrence River Basin Water Resources Compact

In its complexity and willingness to set mandatory, enforceable standards, the proposed Great Lakes compact goes well beyond existing agreements. Unfortunately, its complexity is focused almost entirely on the trees at the certain expense of the forest. Moreover, the compact is neither simple

down a Nebraska law denying a water right to an out-of-state applicant on the grounds that it violated the dormant commerce clause). The Lochhead report’s commerce clause analysis, however, ignores the fact that Congress may through federal legislation adopt legislation that discriminates against other states even if states could not adopt the same legislation on their own. *See Western & Southern Life Ins. v. State Board of California*, 451 U.S. 648 (1981). Thus, while WRDA may be “silly” it does not violate the commerce clause. As for the due process clause, it seems likely that any party whose water withdrawal is vetoed by a governor lacks a property interest in the water sufficient to give rise to a procedural due process claim. *See Board of Regents v. Roth*, 408 U.S. 564 (1972). The possible violations of trade laws are addressed *infra* at note 106.

50. *See Annin, supra* note 15 at 57-72.

51. *See Annin, supra* note 15. Annin describes some of the many problems that particular communities in Basin states very near to the Great Lakes have had acquiring water rights from the lakes, including Pleasant Prairie, Wisconsin, 126-128, Lowell, Indiana, 141-147, Akron, Ohio, 172-190, and Waukesha, Wisconsin, 240-255.

52. As one commentator has previously noted, “the governor of Michigan may unilaterally prohibit any other Great Lakes state from diverting water within its own borders, but outside the Basin, for any purpose, without fear of suffering any reciprocal consequences.” Mark J. Dinsmore, *Like a Mirage in the Desert: Great Lakes Water Quantity Preservation Efforts and Their Punitive Effects*, 24 U. TOL. L. REV. 449, 468 (1993). Recently, Michigan Governor Jennifer Granholm used the State’s veto power to prevent a proposed Great Lakes water diversion to Waukesha, Wisconsin, a city in a straddling county. Dan Egan *Who Should Be Able to Tap Great Lakes?* Milwaukee Journal Sentinel, July 16, 2006, available at <http://www.jsonline.com/story/index.aspx?id=468757> (last visited January 4th, 2007). Under the proposed compact, Waukesha might qualify for a diversion under the exemption for straddling counties, but in the past it has resisted a requirement that would apply under the compact to send its return flows back to the Basin. *See Annin, supra* note 15 at 240-253.

nor efficient, and it commandeers the state regulatory process in a heavy-handed manner that is wholly unnecessary to address the water resource issues presented by the Great Lakes. To understand the fundamental nature of the problem with the proposed compact, it is best to examine its requirements and match them against the underlying motives and objectives that led the parties to come together in the first place.

As noted above, the proposed compact is a complex document, but its essential requirements break down rather easily into six parts. First, the proposed compact establishes inventory, registration and reporting requirements for all withdrawals in excess of 100,000 gallons per day, and for any out-of-basin diversion.⁵³ As already noted, similar data collection requirements were established in the original Charter but were never implemented or enforced.

Second, the proposed compact prohibits new or increased diversions out of the Basin, subject to limited exceptions.⁵⁴ The exceptions are for “straddling communities,” “straddling counties,”⁵⁵ and for intra-basin transfers.⁵⁶ Numerous restrictions apply to such diversions. For straddling counties and communities, the waters may be used only for public water supplies, and all water withdrawn must be returned to the source watershed, minus an allowance for consumptive use.⁵⁷ In addition, all diversions that result in a consumptive use in excess of five million gallons per day must undergo a Regional Review process that includes review by all of the Great Lakes states and provinces.⁵⁸ Intrabasin diversions that exceed five millions

53. Great Lakes Compact, *supra* note 1 at §4.1.

54. *Id.* at §§4.8, 4.9.

55. Defined at Section 1.2 as “any incorporated city, town or the equivalent thereof, wholly within any County that lies partly or completely within the Basin, whose corporate boundary existing as of the effective date of this Compact, is partly within the Basin or partly within two Great Lakes watersheds.”

56. *Id.* at §4.9.

57. *Id.* at § 4.9. Intra-basin diversions are regulated only when they exceed 100,000 gallons per day.

58. *Id.* Whether it is appropriate and lawful for the states to delegate review authority to Canadian provinces is an interesting legal question beyond the scope of this essay. The Great Lakes Basin Compact of 1968 provides valuable insight into Congress’ historical treatment of the Canadian provinces. When Congress approved the compact in 1968, it did not consent to the inclusion of Ontario and Quebec. Congress determined that the Great Lakes were of national interest and that the inclusion of the provinces would interfere with the president’s plenary authority to negotiate U.S. foreign policy. See *The Great Lakes Basin: Hearing on S. 2688 Before the Senate Comm. on Foreign Relations*, 84th Cong. at 83-87 (1956) (statement of Gilbert R. Johnson, Counsel, Lake Carriers Assoc., Cleveland, OH). Nonetheless, in a 1999 document described as a “Declaration of Partnership”, Ontario and Quebec were accepted as “associate members” to the Great Lakes Commission. <http://www.glc.org/about/pdf/declarations.pdf>. Additionally, in 2000, Congress amended the Water Resource Development Act to “ encourage the Great Lakes States, in consultation with the Provinces of Ontario and Quebec, to develop and implement a mecha-

gallons per day of consumptive use are subject to veto by a single member of the Great Lakes Council – the body established to administer the proposed compact.⁵⁹ Diversions for straddling communities are subject to Regional Review and veto by a single Council member regardless of their size.⁶⁰ The compact also effectively bans bulk water diversions in containers larger than 5.7 gallons.⁶¹

A third provision, and the heart of the compact, concerns the obligation of each state to create a program for the management and regulation of new or increased withdrawals within five years from the compact's effective date.⁶² The parties themselves are allowed to set a threshold level for regulation, subject to vague standards,⁶³ but withdrawals that exceed the threshold must meet a detailed decision making standard.⁶⁴ Determining whether the standard is met will seemingly require the preparation of an environmental impact statement or its equivalent.⁶⁵

Fourth, the parties commit to periodic cumulative impact assessments at least every five years.⁶⁶ This assessment is intended to inform the further implementation of the compact, but it lacks enforceable, substantive requirements. Fifth, as noted above, the proposed compact establishes a Council comprised of the Governors of each state, with an alternate appointed to act in the Governor's stead.⁶⁷ The Council has broad powers to conduct research and collect data, conduct investigations, and institute court

nism that provides a common conservation standard" See Water Resources Development Act of 2000, Pub. L. No. 106-541, § 504, 114 Stat. 2572, 2644-45 (codified as amended at 42 U.S.C. § 1962d-20(b)(2)2000).

59. Great Lakes Compact, § 4.9.2. The Great Lakes—St. Lawrence River Basin Water Resources Council is established at §2.1 of the compact.

60. *Id.* at § 4.9.3

61. *Id.* at § 4.12.10. The proposed compact treats withdrawals in containers larger than 5.7 gallons as proposals for diversion. States are free to treat withdrawals in smaller containers as they see fit. *Id.*

62. *Id.* at § 4.10.

63. Under § 4.10.1, the standard must be set—"to assure and effective and efficient water management program that will ensure that overall uses are reasonable, that withdrawals overall will not result in significant impacts..., and that all other objectives of the Compact are achieved."

64. Any party that fails to set a threshold standard within ten years from the effective date of the compact is required to use a 100,000 gallon per day threshold.

65. Under § 4.11, all water withdrawn must be returned to the source less an allowance for consumption. In addition, the withdrawal must be implemented "to insure ...no significant individual or cumulative adverse impacts...; to incorporate environmentally sound and economically feasible water conservation measures...; [and] to insure compliance with all applicable ...laws...." In addition, the reasonableness of the use must be determined based on six factors that reflect concerns about efficiency, water supply, economic development, environmental protection, and adverse impacts to the Basin. § 4.11.5.

66. *Id.* at §4.15

67. *Id.* at §§2.1 – 2.3.

actions.⁶⁸ The Council may also revise the standard of review and decision used for making individual water allocation decisions, and for determining exceptions to the prohibition on diversions.⁶⁹

Finally, the proposed compact includes provisions for public participation and dispute resolution.⁷⁰ Most notably, it grants aggrieved persons the right to a hearing in accordance with state administrative laws, and it provides for judicial review of adverse administrative decisions.⁷¹ The proposed compact also includes a “citizen suit” provision that authorizes actions against the Council or any party to compel compliance with the compact, and it provides for recovery of attorneys fees to prevailing parties.⁷²

Beyond these specific requirements, the proposed compact adopts one other important innovation. While ground and surface water are managed separately in most jurisdictions throughout the United States, the proposed compact simply defines “water” to mean “ground or surface water contained within the Basin.”⁷³ Because of the interconnectedness of water resources this provision makes good sense.

II. HOW THE COMPACT FAILS TO PROTECT THE GREAT LAKES

A. The Fundamental Problem with the Proposed Compact

Before describing the fundamental problem with the proposed compact, it is necessary to look back at the core motives that led to its development. While it may be appropriate to ascribe protectionism as at least one underlying reason for the proposed compact, the professed and most prominent reason for the effort was a sincere desire to protect the ecological values inherent in the water resources of the Great Lakes. Evidence of this comes from both the original 1985 Charter and the 2001 Annex.⁷⁴ As noted previously, the key reasons for the Charter were “to conserve the levels and

68. *Id.* at §3.2.

69. *Id.* at §§3.1, 3.2.

70. *Id.* at §§6.1-6.2, 7.2.

71. *Id.* at §7.3.

72. While the language somewhat tracks citizen suit provisions in federal environmental laws (*see, e.g.*, Clean Air Act, § 304(d), 42 U.S.C. § 7604(d)) it is somewhat different in expressly authorizing recovery of fees by prevailing parties. Given the express limitation on the recovery of fees to prevailing parties it is odd that the language does not clearly allow only “one-way” fee shifting, making clear that, as a general rule, only prevailing plaintiffs are eligible to recover their fees. *See David Berger, Court Awards of Attorneys’ Fees: Litigating Antitrust, Civil Rights, Public Interest and Securities Cases—Prevailing Party Concepts in Court Awards of Attorneys’ Fees*, 324 PLI/Lit. 41, 77 (1987).

73. The Great Lakes Compact, *supra* note 1, at § 1.2. The Regulated Riparian Model Water Code similarly treats all water sources the same for purposes of management and regulation. ASCE Standard No. 40-03 (2004).

74. *Id.* at §1.3 at Purposes.

flows of the Great Lakes and their tributaries and connecting waters, [and] to protect and conserve the environmental balance of the Great Lakes.”⁷⁵ The Annex commits the parties to develop “an enhanced water management system . . . that most importantly, protects, conserves, restores, and improves the waters and water dependent natural resources of the Great Lakes basin.”⁷⁶

The proposed compact can thus be fairly assessed in terms of whether it achieves these overarching goals. Sadly, it does not. Despite many positive aspects to the proposal, it utterly fails to promote the ecological health of the Basin and its water and water dependent resources. The key feature of the proposed compact is its requirement that states manage new or increased withdrawals, and assess them against a specific decision-making standard. For many reasons, this cumbersome requirement is unlikely to achieve any progress toward protecting lake levels and promoting the ecological health in the Basin. Most importantly, by focusing so much attention on new or increased withdrawals, the proposed compact ignores all of the far more significant existing uses and activities that currently affect the water resources of the Great Lakes Basin. In a report published in 2000, the IJC described how existing uses currently impact the Great Lakes.⁷⁷ That impact, which is summarized in the table set forth below, illustrates how insignificant the new or increased withdrawals are likely to be on the water resources of the Great Lakes for many years to come.

75. Great Lakes Charter, *supra* note 26, Statement of Purpose.

76. Great Lakes Charter Annex, *supra* note 41, Statement of Purpose.

77. Protection of the Waters of the Great Lakes, Final Report to the Governments of Canada and the United States (2000), *available at* <http://www.ijc.org/php/publications/html/finalreport.html> (last visited, December 10, 2006). The IJC’s 2000 report resulted from a referral by the Canadian and American governments following the controversy over the Nova Group’s proposal to ship bulk water from Lake Superior to Asia. *See Annin, supra* note 15 at 196-97.

Table 1. Impacts of Uses and Diversion on Lake Levels⁷⁸

Diversion/ Modification	Rate (cms)	Superior (cm)	Huron/ Michigan (cm)	Erie (cm)	Ontario (cm)
Long Lac-Ogoki⁷⁹	160	+6.4	+11.3	+7.6	+6.7
Chicago River⁸⁰	91	-2.1	-6.4	-4.3	-3
Welland Canal⁸¹	266	-1.8	-5.5	-13.4	0.00
St. Clair/Detroit River Dredging⁸²	NA	0.00	-80	0.00	0.00
Niagara River Outlet	NA	0.00	+3	+12	NA
All consumptive uses (as of 1993)	NA	-1	-5	-4	-6
Totals	NA	+1.50	-82.6	-2.1	-2.3

78. Data adapted primarily from Great Lakes Diversions and Consumptive Uses, IJC, (1985), available at, <http://www.ijc.org/php/publications/pdf/ID586.pdf>, last visited January 24, 2007. (hereafter IJC 1985 Report), and the IJC 2000 Report, *supra* note 10. The figure for the St. Clair and Detroit River dredging comes from the Baird & Associates study cited at n. 82. Even accepting that some uncertainty exists regarding the accuracy of these figures, they plainly illustrate the importance of these activities for the overall health of the Great Lakes Basin

79. Long Lac and Ogoki are two separate diversions that take water that originally drained into James Bay and divert it into Lake Superior. The primary purpose of these diversions was for hydroelectric power generation but Long Lac has also been used to transport pulpwood. These diversions are governed by the Niagara River Water Diversion Treaty of 1950 between the U.S and Canada. IJC 1985 Report, *supra*, n. 78 at 10-15.

80. As previously noted, the Chicago diversion, which reverses the flow of the Chicago River out of Lake Michigan and into the Mississippi River basin, was primarily designed to treat sewage but it is also used for municipal water supplies, power generation, and navigation. See IJC 1985 Report, *supra*, n. 78, at 15-16.

81. The Welland Canal takes water from Lake Erie and allows ships to bypass the Niagara River and Niagara Falls. It is also used by Ontario for hydroelectric power generation. See IJC 1985 Report, *supra*, n. 78, at 16-20.

82. Dredging records indicate that between 1841 and 1992, 22 million cubic meters of material have been removed from the St. Clair River, primarily to promote navigation. The impacts of dredging on the St. Clair River are a matter of some dispute. In 1987, the IJC estimated the impact on Lake Huron to be between -36 and -43 centimeters, but a recent study by W.F. Baird and Associates puts this figure at approximately 80 cm. Regime Change (Man Made Intervention) and Ongoing Erosion in the St. Clair River and Impacts on Lake Michigan-Huron Lake Levels, W.F. Baird & Associates (June, 2005) available at, http://www.georgianbay.ca/pdf/water_levels/St.ClairReport_V5.pdf, last visited, January 24, 2007.

The table illustrates two important points. First, several existing projects have impacts on lake levels that far exceed the impacts from all of the existing consumptive uses from all of the states and provinces through 1993. Most strikingly, the dredging of the St. Clair and Detroit Rivers alone has an impact on Lakes Michigan and Huron that is more than fifteen times the impact of all the existing consumptive uses for those bodies of water. Second, all of the existing consumptive uses have a comparatively minor impact on lake levels when compared with the other diversions and projects described in the table. Of course, the proposed compact will not address any of the uses or projects on the table, since it focuses almost exclusively on *new* consumptive uses.⁸³ But a compact that addresses only new withdrawals—indeed, new withdrawals that occur after the deadline for establishing a regulatory program, which is five years from the compact’s effective date—and that ignores existing withdrawals and other uses and activities that significantly impact lake levels cannot hope to achieve the ecological health goals that are set forth in the Charter and Annex.

Beyond the goal of protecting and conserving the waters of the Great Lakes Basin, the Annex mandates a solution that is “simple, durable, efficient, [and] retains and respects authority within the Basin . . .”⁸⁴ But the highly specific standards for evaluating new withdrawal applications cannot be simply applied, and the complex assessment that the compact requires states to make to ascertain compliance with the standards cannot be done efficiently. Most importantly though, the “command and control”⁸⁵ directive to regulate new water withdrawals pursuant to detailed criteria does not respect state authority. Even assuming that consideration of the cumulative impact of consumptive uses might be necessary to protect and conserve the water resources of the Great Lakes Basin, the rigid system imposed under the compact on every state for new water uses is certainly not the only, and arguably not the best way to conserve water resources. For example, rather than regulating new uses strictly, some states might prefer to relax their standards on new uses and regulate existing uses modestly to achieve even

83. Professor Hall has argued that the proposed compact does not grandfather existing uses since states remain free to address these uses of their own accord. *See* Hall, *supra* note 17, at 436. While it is true that states remain free to impose regulations that go beyond the terms of the compact, the compact itself fails to require regulation of existing uses. An analogous situation exists under the Clean Air Act, which requires states to regulate new stationary sources of pollution but generally lets states decide whether and how to regulate existing sources. With respect to these sources, commentators frequently describe existing sources as having been grandfathered. *See e.g.*, Victor B. Flatt and Kim Diana Connolly, ‘Grandfathered’ Air Pollution Sources and Pollution Control: New Source Review Under the Clean Air Act, *available at* http://www.progressiveregulation.org/articles/NSR_504.pdf (last visited December 10, 2006).

84. Great Lakes Charter Annex, *supra* note 41, Purpose.

85. “Command and control” is a phrase used to describe specific regulatory standards established and enforced by a central authority with limited flexibility to meet unique situations.

better conservation overall than provided for under the compact. Moreover, because the compact imposes no firm cap on overall use of the water resources of the Basin, the potential for overuse under the compact model remains.⁸⁶ Indeed, because the equitable position of the parties favors increasing their use as against each other,⁸⁷ one would expect the compact to promote, rather than restrain, consumption of water resources, notwithstanding the detailed process for approving consumptive uses. If the parties are truly committed to respecting state authority, and if the most important thing is to protect the water resources of the Great Lakes, then States should be free to adopt any plan that achieves an appropriate level of water conservation.

B. The Problem of Out-of-Basin Diversions⁸⁸

In the spring of 1998, the Nova Group based in Sault Ste. Marie, Ontario proposed annual shipments by tanker of 160 million gallons of Lake

86. The risk of overuse is not hypothetical. In *The Great Lakes Water Wars*, Peter Annin describes an irrigation project approved by Governor John Engler in 1993 for the Mud Creek Irrigation District. The project was designed to withdraw an average of 8.6 million gallons per day from Saginaw Bay in Lake Huron through Mud Creek to provide irrigation water for farms in the “Thumb” area of Michigan. The decision to approve this project was made over the strenuous objections of the Great Lakes states and provinces, who were provided notice and a right of consultation under the terms of the Great Lakes Charter. Ironically, Governor Engler’s recommendation to approve this project came one year to the day after Governor Engler vetoed a much more modest proposal to withdraw about one million gallons per day from the Great Lakes for a small community of Lowell, Michigan. Despite significant federal subsidies the Mud Creek project has proved to be an abysmal failure and only a tiny fraction of the water allocated for the project is actually withdrawn today. Still, Mud Creek illustrates the potential for overuse and like the Great Lakes Charter, the compact only requires prior notice before large in-basin uses are approved. Annin, *supra* n. 15 at 154-167.

87. In *Nebraska v. Wyoming*, the Supreme Court described its approach to apportionment in a case involving three prior appropriation states:

Apportionment calls for the exercise of an informed judgment on a consideration of many factors. Priority of appropriation is the guiding principle. But physical and climatic conditions, the consumptive use of water in the several sections of the river, the character and rate of return flows, the extent of established uses, the availability of storage water, the practical effect of wasteful uses on downstream areas, the damage to upstream areas as compared to the benefits to downstream areas if a limitation is imposed on the former—these are all relevant factors.

See *Wyoming v. Nebraska*, 325 U.S. 589, 618 (1945).

88. Although the word “diversion” is used in most Western states simply to define a withdrawal of water, the proposed compact defines “diversion” as “a transfer of water from the Basin into another watershed, or from the watershed of one of the Great Lakes into that of another by any means of transfer....”

Superior water to Asia.⁸⁹ Although Ontario initially approved the proposal, the province quickly reversed course after a public outcry against it.⁹⁰ More importantly, the proposal prompted renewed efforts by the Great Lakes states and provinces to revisit the Great Lakes Charter. The 2001 Annex, and the proposed compact that followed, are a direct result of those efforts.⁹¹

Long before the Nova Group's proposal, however, the parties had wrestled with the problem of out-of-basin diversions.⁹² The Water Resources Development Act of 1986 had effectively blocked most new out-of-basin diversions, and despite the problems this legislation had created for some communities located within basin states but outside the Basin, a substantial constituency developed to fortify the ban on most diversions.

The proposed compact imposes a strict ban on new diversions that in some respects goes beyond the provisions of WRDA. Whereas WRDA allowed diversions so long as every Great Lakes governor approved them, the proposed compact bans all diversions except in narrow circumstances.⁹³ As noted previously, limited exceptions are authorized for straddling communities and straddling counties,⁹⁴ as well as for intra-basin transfers.⁹⁵ In particular, out-of-basin diversions are allowed only for public water supplies, and any water withdrawn from the Basin must be returned to the source watershed less an allowance for consumptive use. Moreover, a single state can veto any diversion proposed by straddling counties as well as large intra-basin diversions. Parties must submit to a Regional Review for these large diversions as well that includes all of the Great Lakes states and provinces.⁹⁶

89. IJC 2000 Report, *supra* note 10, at 44. See also Annin, *supra* note 15 at 193-97; Mark Squillace and Sandra Zellmer, Managing Interjurisdictional Waters under the Great Lakes Charter Annex, 18 Nat. Res. & Env't. 8 (Fall, 2003).

90. Martin O'Malley & Angela Mulholland. "Canada's Water." CBC News Online, available at http://www.portaec.net/library/ocean/water/canadas_water.html (last visited January 15, 2007).

91. Testimony of Samuel W. Speck, Chair Council of Great Lakes Governors Water Management Working Group, before U.S. Senate Committee on Environment and Public Works August 25, 2003, available at <http://www.glc.org/about/testimony/pdf/specktest.pdf> (last viewed January 15, 2007).

92. See Annin, *supra* note 15, at 57-72. Annin describes a number of major transbasin diversion proposals some of which involved the Great Lakes. None of the proposals described by Annin have come even close to being approved.

93. Great Lakes Compact, *supra* note 1, at §4.8.

94. *Id.* at §4.9.1. See *supra* text accompanying note 34.

95. *Id.* at §4.9.2

96. *Id.* at §4.5. The limits on diversions are described in more detail at the text accompanying notes 54-60. While the findings of the Regional Review body are not binding on the Council (which includes only state representatives), the process is structured to promote consensus decision-making by the review body itself. Whether an interstate compact can lawfully commit the states to a process involving two foreign provinces is an interesting constitutional issue that is beyond the scope of this essay. See Chris A. Shafer, Great Lakes

While it is surely important to prevent massive out-of-basin diversions that can directly impact water levels of the lakes, such as the Chicago River Diversion, it is far from clear that the states or provinces should have any control over diversions that fail to impact them in any measurable way. Why, for example, should Michigan or Ohio have any role to play in a proposal by Quebec or New York to divert water out of the St. Lawrence Seaway? Why too, should any state or province be allowed to object if another state or province prefers to judiciously use some of its fair share of Great Lakes water for an out-of-basin purpose? Under the proposed compact, states may not object to another state's overuse of Great Lakes water resources so long as those uses are in the Basin and the state follows the compact's procedures for approving their use. Yet over the long term, such uses could have a far greater impact on the Great Lakes and the balance of uses among the states and provinces, than any out-of-basin diversion.⁹⁷ In other words, the compact focuses too much on the place of the use, rather than on the impact of the use on the overall water resources in the Basin.

By severely limiting use of Great Lakes water out of the Basin, the proposed compact also indirectly promotes extractions within smaller watersheds and groundwater basins, where the potential for ecological damage may be far more severe.⁹⁸ For example, a community outside the Basin that fails to qualify as a straddling community or county faces an outright ban on Great Lakes water use.⁹⁹ Yet the compact fails to reveal even the slightest recognition that withdrawals from a local watershed or groundwater basin could have a significant local ecological impact, whereas the use of Great Lakes water in the same amount might well be negligible. This problem could arise even with straddling communities and counties, since the proposed compact provides significant disincentives to such communities that might want to withdraw Great Lakes water, including requirements to conduct an alternatives analysis, undergo regional review, and return water to

Diversions Revisited: Legal Constraints and Opportunities for State Regulation, 17 COOLEY L. REV. 461 (2000)

97. The often expressed objection about past proposals to divert modest amounts of water out of the basin center on the precedent that they might set. See Annin, *supra* note 15. Annin refers to the concern about precedent both with the Nova Group proposal (at 195) and the Waukesha proposal (at 244). In particular, Annin notes that "a hundred Waukeshas would nearly equal the Illinois diversion." *Id.* But precedent would not be a legitimate worry if states were required to limit their consumption to their fair share and if the compact provided for management of overall water use within the Basin as proposed in the alternate framework. See *infra* text accompanying notes 107-124.

98. Officials in Waukesha, Wisconsin argued, for example, that the local Fox River watershed and the marsh that it supported were far more threatened by the loss of the City's return flows than Lake Michigan where the impact would have been negligible. See Annin, *supra* note 15 at 252. Yet the states refused to budge on their demand that Waukesha send its return flows back to the Basin. *Id.*

99. See Great Lakes Compact, *supra* note 1, at §4.8.

the source watershed after use.¹⁰⁰ It is entirely appropriate that the proposed compact considers the ecological health of the Great Lakes, but it is wrong to essentially ignore the broader ecological impact on the affected region, as the proposed compact does. Indeed, because the local watersheds adjacent to the Great Lakes Basin will necessarily be much smaller, the potential for ecological harm to these adjacent watersheds from withdrawing a fixed amount of water is far higher.¹⁰¹

C. Protecting Upper Watersheds

Under the proposed compact, the states and provinces are required to ensure that “withdrawals overall will not result in impacts to the waters and water dependent natural resources, determined on the basis of significant impacts to the physical, chemical, and biological integrity of the source watersheds... .”¹⁰² In addition, withdrawals and consumptive uses must be implemented “so as to ensure that the proposal will result in no significant individual or cumulative adverse impacts to the quantity or quality of the waters and water dependent natural resources.”¹⁰³ While these provisions could, and perhaps should, be construed to restrict proposals to remove waters from upper watersheds, they are certainly not framed in those terms, and they are worded so generally that they will be easy to circumvent. As previously argued,¹⁰⁴ the proposed compact is fairly criticized for being unduly intrusive on state authority without a commensurate benefit. Yet, the one place where intrusion on state authority may make sense is for such upper watershed withdrawals. Anecdotal evidence from recent water sup-

100. *Id.* at §4.9.

101. In *The Great Lakes Water Wars*, Peter Annin describes how Waukesha, Wisconsin, a city in a straddling county, argued for the right to divert Lake Michigan water but not return it to the Basin because of the adverse impacts on the Fox River ecosystem. Annin, *supra* note 15 at 240-255. Waukesha’s request was ultimately denied. James Rowen *New Water Diversion Try Shows Problems Ahead*, WisOpinion, July 3rd, 2006, available at http://www.greatlakesdirectory.org/wi/070306_great_lakes.htm, (last visited January 4, 2007). Waukesha now plans to drill two new wells to tap its shallow aquifer to meet its water needs. This could adversely impact surface water levels. Jon Behm, *Area Aquifer Projected to Drop 125 Feet by 2020*, Milwaukee Journal Sentinel, 21 May 2004, available at <http://www.jsonline.com/story/index.aspx?id=231239> (last visited January 1, 2007). A somewhat different issue confronts New Berlin, Wisconsin, which relies heavily on a deep aquifer to supply its municipal water system. Radium contamination in its wells recently led New Berlin to request a new water diversion from the Great Lakes, which would allow the town to limit the drawdown in the aquifer. Although New Berlin is a straddling community, it has faced significant opposition for this withdrawal, even though all of the water would be returned to the Basin and the diversion would protect the New Berlin aquifer. See Dan Egan, *supra* note 52. .

102. Great Lakes Compact, *supra* note 1 at §4.10

103. *Id.* at §4.11.

104. See *supra*, Part II.

ply controversies suggests that this is really where the ecological problems are most likely to occur.

For example, several years ago the Michigan Citizens for Water Conservation sued Nestlé Waters North America for pumping water for a water bottling plant in western Michigan.¹⁰⁵ The well from which the water was extracted was hydrologically connected to Sanctuary Springs, which connects to the headwaters of the West Branch of the Little Muskegon River.¹⁰⁶ The trial court found that the water resources below the pumping site were impaired at pumping rates above 160-170 gallons per minute.¹⁰⁷ Nestlé wanted to pump at an average rate of 250 gallons per minute, or 360,000 gallons per day.¹⁰⁸ The difference—about 90 gallons per minute, or 129,600 gallons per day—is, by most measures, a small amount of water.¹⁰⁹ If this water had been taken directly from one of the Great Lakes, or from an aquifer directly connected to one of the Lakes, the impact would have been negligible. By taking the water from the upper watershed of a small tributary, however, the withdrawal may well have a significant ecological impact.¹¹⁰ The proposed compact would do much more to protect the ecological health of the Great Lakes if it had focused on banning upper watershed withdrawals rather than out-of-basin diversions.¹¹¹ Yet it lacks any specific limit on such uses.

105. See Michigan Citizens for Water Conservation available at <http://www.savemiwater.org/MAIN%20PAGES/watercourt%20case.htm> (last visited on December 25, 2006). Other examples: http://www.chicagoist.com/archives/2006/11/28/town_wants_to_suck_lake_michigan_dry_with_straws.php and http://www.greatlakesdirectory.org/wi/081605_great_lakes.htm.

106. *Id.*

107. *Id.*

108. *Id.*

109. In the western states, for example, a common allocation for irrigation purposes is one cubic foot per second of water or 646,317 gallons per day to irrigate 70 acres of land. See e.g., Wyo. Stat. Ann. §41-4-317. Thus, one would need almost twice the water produced by Nestle at this facility to irrigate 70 acres of land in Wyoming. Likewise, Per capita use of public water supplies in the United States in 1990 averaged 183 gallons per day. See <http://www.epa.gov/ow/you/chap1.html>, last visited January 5, 2007, and thus the Nestle water bottling facility produces enough water to satisfy the needs of about 8,000 people.

110. See also Robert Glennon, WATER FOLLIES: GROUNDWATER PUMPING AND THE FATE OF AMERICA'S FRESH WATERS (2002). Among other things, Glennon includes a chapter describing the adverse ecological effects of a proposed Perrier water bottling plant near the headwaters of the Mekan River in Wisconsin—an outstanding trout fishery. Perrier ultimately abandoned this project. *Perrier Gives up Plan to Tap Mekan River*, The Milwaukee Journal Sentinel, (Feb. 20 2000).

111. Beyond the ecological threat posed by withdrawing water from an upper-watershed, a number of legal questions arise under NAFTA, GATT, and the WTO. Of particular concern for the proposed compact is the question whether these free-trade agreements might trump the compact's ban on water exports. To the extent the proposed compact actually focuses on the overall ecological health of the Great Lakes and the conservation of exhaustible water resources, it should not pose a free trade problem. Article XX of GATT

III. AN ALTERNATE FRAMEWORK FOR PROTECTING THE GREAT LAKES

If the focus of the compact were truly on managing the Basin's water resources to protect its ecological health, then the states and provinces should design a management framework that addresses the large withdrawals, uses, and activities that either individually or cumulatively have a meaningfully impact on lake or tributary stream levels.¹¹² These should include activities such as the dredging of the St. Clair River, the operation of the Welland Canal, the Chicago River diversion, and the Long Lac and Lake Okogi diversions. While it may be politically and practically impossible to significantly alter these activities, the proposed compact could give ownership of these activities to the host state or province in a way that would promote their better management. As Justice Holmes noted many years ago, "[a river] offers a necessity of life that must be rationed among those who have power over it." In keeping with this advice, the parties should allocate the water resources of the Great Lakes Basin based upon current levels of use. Unlike the proposed compact, such a framework would, in the words of the Charter Annex, offer a solution that is "simple, durable, efficient," and that "retains and respects authority within the Basin, and . . . protects, conserves, restores, and improves the waters and water dependent natural resources of the Great Lakes Basin."¹¹³ Here is how it might work.

First, the parties will have to agree to be bound by a water budget that will most likely be based upon an agreed percentage of the historical use of

provides that trade can be restricted "relating to the conservation of exhaustible natural resources if such measures are made effective with restrictions on domestic production or consumption." The proposed compact, however, does not impose restrictions on domestic production or consumption. Rather, it merely requires that withdrawals be managed subject to certain standards. By contrast, the proposed alternate framework (see *infra* at p. 18) would clearly limit production and consumption based upon allocations that are established to protect the ecological health of the Basin. A more detailed analysis of the free trade issues is included in Section 8 of the IJC 2000 Report, *supra* note 10 at 32-34. The Appellate Body's 1998 ruling in *Shrimp/Turtle* offers an example of a favorable ruling for the conservation of a natural resource under Article XX of GATT. See Robert Howse, *The Appellate Body Rulings in the Shrimp/Turtle Case: A New Legal Baseline for the Trade and Environment Debate*, 27 COLUM. J. ENVTL. L. 489, 519 (2002).

112. Some of the Great Lakes states may resist any solutions that move them too far away from their riparian law roots. Yet the proposed compact itself bears little resemblance to traditional riparian principles. New withdrawals and consumptive uses that exceed the threshold levels must meet stringent standards that go well beyond the correlative rights principles of riparian doctrine. Great Lakes Compact, *supra* note 1 at §4.11. Some might argue that the strict limits on out-of-basin uses reflect a riparian law preference for using water within the local watershed, but water uses on nonriparian lands, whether in or out of the basin, have become fairly commonplace in riparian jurisdictions, and are reflected in modern riparian laws. See, e.g., Fla. Stat. §373.223(2) (recognizing the right of the regulating agency to authorize the use of water "outside the watershed from which it is taken").

113. See Great Lakes Charter Annex, *supra* note 41, Purpose.

water resources by each of the states and provinces.¹¹⁴ The International Joint Commission has already compiled figures for percentage use among the states and provinces and this information provides a ready basis for negotiations. Using comprehensive data from 1993, the IJC developed a reliable snapshot of water usage by jurisdiction. The IJC determined that consumptive uses in Ontario was 27 percent, in Michigan, 21 percent, in Wisconsin, 20 percent, in Indiana, 7 percent, in New York, Quebec, and Ohio, 6 percent each, in Illinois, 4 percent, in Minnesota, 2 percent, and in Pennsylvania, less than 1 percent.¹¹⁵ While additional work might need to be done to verify these figures and to further delineate usage within appropriate sub-basins, the use of historical data to establish baseline percentages will avoid the risk that states will inflate their water usage to increase their rights under the proposed alternate framework. This would be the first contribution of a water budget towards conserving the water resources of the Great Lakes.¹¹⁶

Second, the parties will have to cede oversight responsibility to a central authority, perhaps the IJC itself, including the power to determine how much water is available for consumptive use during an established water cycle. Because of the relative insignificance of downstream withdrawals to upstream users, the IJC might appropriately look to hydrologic sub-basins in defining state and provincial rights.¹¹⁷ Also, because the Basin is blessed with such vast water resources, it is unlikely, at least initially, that these water budgets will be especially stringent. Nonetheless, the central authority should be required to follow the “precautionary principle”¹¹⁸ and “take into account the best available data, information, and knowledge, including

114. The notion of a water budget may seem like unfamiliar territory for riparian states. Western prior appropriation states are probably more comfortable with fixed allocations of water. But the permit system required by the proposed compact is designed to set fixed allocations for individual users, and the water budget merely represents an aggregation of present and future fixed uses.

115. IJC 2000 Report, *supra* note 10, Consumptive Uses, Figure 2-B.

116. The Upper Colorado River Basin Compact uses a water budget similar to the one proposed here. In order meet their legal obligation to deliver 7.5 million acre feet to the Lower Colorado River Basin, the five upper-basin states apportioned the flow of the river on a percentage basis. 63 Stat. 31 (1948). Special allocations might be made for the truly big diversions or activities that affect water levels in the Basin so that their management and control can be carefully monitored.

117. The IJC refers to the Great Lakes as a “single hydrological system” in its 2000 final report. While cumulative impacts should be evaluated with respect to the overall Great Lakes ecosystem, individual impacts might be considered in relation to their immediate impact on a sub-basin. IJC 2000 Report, *supra* note 10.

118. The European Environmental Agency has written a paper that describes the precautionary principle and that is instructive in its application. See “Late Lessons from Early Warnings: the Precautionary Principle 1896-2000, available at http://reports.eea.europa.eu/environmental_issue_report_2001_22/en/Issue_Report_No_22.pdf.

cultural, economic, environmental, and social values”¹¹⁹ when establishing the overall budget. This will ensure an allocation that balances the Basin’s essential water needs with its overall ecological health. As time goes on and more is learned about the role of water resources to the ecology of the Basin, these budgets may have to be tightened. Unlike the program established under the proposed compact, though, the alternate framework suggested here will teach states and provinces how to manage overall water consumption and use, and it is readily adaptable to address cyclical problems such as drought and possible impacts from climate change.

Third, the parties will have to accurately report their water consumption and use to the central authority. A common, reliable data collection system could be modeled along the lines of the system set forth in the proposed compact. That system requires each party to “develop and maintain a water resource inventory for the collection, interpretation, storage, retrieval, exchange and dissemination of information . . . on the location, type, and quantity of withdrawals, diversions, and consumptive uses.”¹²⁰ It further requires the Council to “assist each party to develop a common base of data”¹²¹ and to register withdrawals in excess of 100,000 gallons per day.¹²² Finally, it requires each party to report annually on the monthly volumes of withdrawals, consumptive uses, and diversions.¹²³ It must be stressed, however, that under the proposed alternate framework, the reliability and transparency of the data and its timely collection will be critical to the success of the program. All parties, as well as the general public, must have a high level of confidence in this data. With this in mind, the parties should develop a common website for reporting water data. This website should be accessible to all parties as well as the general public, and should allow for the receipt of comments and questions relating to the reported data. In this way, issues regarding the reliability of the data can be quickly identified and resolved.

To enforce the allocated water budget, the central authority will also have to monitor and audit water use, and impose financial or other penalties against parties that violate their budgets. For example, the alternate framework might establish a schedule of fines or fees of a set amount for every million gallons of water in excess of the party’s allocation.¹²⁴ In the alternative, penalties might be assessed against a state’s future allocation.

119. IJC 2000 Report, *supra* note 10.

120. Great Lakes Compact, *supra* note 1 at §4.1.1.

121. *Id.* at §4.1.2

122. *Id.* at §4.1.3

123. *Id.* at §4.1.4

124. An analogous and successful program operates with the Clean Air Act under the cap and trade program for sulfur dioxide. Stationary sources are required to have a sufficient amount of allowances (equivalent to one ton of SO₂) each year to cover their SO₂ emissions.

While this alternate framework is simple, efficient, and respectful of state authority, its most important advantage over the proposed compact is that it allows the parties to truly focus on protecting the ecological integrity of the Great Lakes Basin. If, for example, the health of the Basin were threatened by drought, adjustments to water budgets could be quickly made as necessary to protect the Basin's resources.

Because of the relative abundance of water in the Great Lakes, at least one commentator has suggested that a water budget is not needed for the Great Lakes.¹²⁵ But if water scarcity were not a concern, then the strenuous objections to the Nova Group proposal¹²⁶ and other proposals to remove water from the Basin could only be explained on blatant protectionist grounds. Surely it is unfair to ascribe protectionism as the overriding motivation of the parties in adopting the Great Lakes Charter, the Charter Annex, or the proposed compact itself. In its 2000 Report, the IJC noted that "[i]f all interests in the Basin are considered, there is never a 'surplus' of water in the Great Lakes system."¹²⁷ Given this reality, establishing water budgets makes good sense.

Critics of a water budget approach also overlook its adaptability. Budgets need be only as restrictive as necessary to address legitimate scarcity concerns. When scarcity problems arise, as they inevitably will, the alternate framework, unlike the proposed compact, offers a mechanism that can directly and quickly address the problem. Furthermore, the alternate framework suggested here will encourage states to develop and implement conservation and demand-management practices.

The allocation of water resources to individual states and provinces also opens opportunities for marketing water resources within states and provinces, and even between or among them. For example, if a state is bumping up against its water budget, it might free up water resources for new uses by allowing existing users to market all or part of their water rights to new users, subject to state regulatory approval.¹²⁸ Or, if a state

Fines of \$2000/ton are imposed for each ton of SO₂ in excess of a sources allowances. 42 USC § 7651i(a).

125. See Hall, *supra* note 17, at 412. , Professor Hall argues that "[w]ithout system-wide scarcity or overuse, a capped allocation is not appropriate."

126. See David Dempsey "Bottling the Great Lakes: Whose Water is it, Anyway?" December 10, 2003 available at <http://www.lansingcitypulse.com/031210/031210cover.html> (last visited January 4th, 2007).

127. The IJC 2000 Report also noted that "the cumulative impact of past activity and the likelihood of future change will further stress the integrity of the Great Lakes ecosystem and its ability to respond to change. Global warming will likely increase and will likely change patterns of consumptive use; in particular, higher average temperatures in the Basin could result in increased agricultural activity and water consumption in the longer term." *Supra* note 10.

128. The potential advantages of water marketing are well understood in the more water scarce western states but have been resisted in some parts of the east and midwest due

efficiently manages its water, it might have the opportunity to lease a portion of its water resources to neighboring states or provinces. The natural characteristics of the Great Lakes lend themselves to the efficient transfer of such water rights.¹²⁹ For example, as already noted, Lake Huron and Lake Michigan are considered to be one hydrological unit due to their connection through the deep Straits of Mackinac.¹³⁰ This suggests that water could be easily transferred among the states and provinces that border these lakes with little transfer loss.

Additionally, the alternate framework provides opportunities for states to encourage private parties to move water withdrawals away from the upper watersheds and closer to the lakes where they are far less likely to cause ecological damage. For example, states might allow increases in water withdrawals by private parties when withdrawals are taken from or near the Great Lakes.¹³¹

It is important to understand that the alternate framework proposed here does not make judgments about the merits of out-of-basin diversions. But the existence of a water budget will provide the states and provinces with a powerful incentive to keep as much of their water in the Basin as possible so that it will be available to the state or province for other uses. That is, if any state or province allows too much water out of the basin they

to objections to treating water as a commodity. See *Sierra Club and Sierra Club of Canada call on Governors and Premiers: Protect Our Great Lakes from Sale or Diversion!*, available at <http://www.sierraclub.ca/national/media/item.shtml?x=817>, last visited, January 24, 2007 (expressing support for a Great Lakes agreement that “ensures that water is recognized as a human right, not a commodity”). But most if not all states treat their water resources as state or public property subject to the public trust. Private parties only acquire the right to use the water, and while the rules differ, parties can acquire such rights whether they are in a riparian or prior appropriation jurisdiction. It is this use right that some states allow to be transferred to other parties; the water resources themselves remain subject to public trust limitations. By specifically defining the scope of a state’s water rights and its public trust assets, the proposed alternate framework actually promotes the preservation of water resources and prevents the over-exploitation of this “commons” resource. See Garrett Hardin, *The Tragedy of the Commons*, 162 *Science* 1243-1248 (1968).

129. Transferring water along a stream system is far more problematic because of possible harm to upstream or downstream users with such transfers. The slow moving water in the Great Lakes allows large sub-basins within the Lakes to function more like a reservoir where a quantity of water extracted from one point is essentially equivalent to a quantity extracted at another point. For a more comprehensive discussion of the technical problems surrounding water transfers, see Jay R. Lund “Water Transfers in Water Resource Systems” available at <http://cee.engr.ucdavis.edu/faculty/lund/ftp/Transfers.doc>.

130. Toward a Water Resource Management Decision Support System for the Great Lakes-St. Lawrence River Basin, at 28, available at <http://www.glc.org/wateruse/wrmdss/finalreport/pdf/WR-Ch.2-2003.pdf> (last visited January 5, 2007).

131. While this opportunity could also be promoted under the proposed compact, the clear recognition of water as property under the alternate framework should make this opportunity easier to implement.

risk depriving their own citizens of adequate water supplies. Moreover, this approach effectively responds to the concerns that have been raised about the supposed slippery slope of allowing a single out of basin diversions. State will be allowed to permit such diversions, but their total use will not be allowed to exceed their budget. If the focus of the Great Lakes management initiative is truly on promoting the ecological health of the Basin and not on discriminating against parties located outside the Basin, no one will have cause to object.

Importantly, this alternate framework does not require any particular permit or regulatory system for administering water rights. But the requirement that the parties acquire accurate and timely information about water use will make it very easy for states to establish permitting standards for both new and existing uses. And by imposing a water budget on each state, the proposed framework provides a strong incentive for states to manage water use robustly so that they can assure that water is available for new uses.

Despite the significant advantages offered by the alternate framework, the challenges facing its implementation must not be overlooked. In particular, as previously noted, accurate data collection will be critical to the success of this approach since the rights of all parties will depend on it. Defining sub-basins may also prove challenging, although here the parties could negotiate a flexible program that will allow the central authority to adjust sub-basins to best reflect practical considerations and hydrologic conditions, as more is learned about managing the Basin's water resources. Fortunately, the sheer quantity of the water resources in the Great Lakes should allow the parties sufficient time to resolve these issues. But even the vast water resources of the Great Lakes cannot justify a water management program such as that offered by the proposed compact that imposes such an onerous burden on states for so little in return.

IV. THE ROAD TO AN ALTERNATE FRAMEWORK

Even assuming that momentum might build to take a fresh look at the proposed compact, it is difficult to imagine a path that would lead to an entirely new approach to managing the water resources of the Great Lakes Basin. The initiative that led to the development of the proposed compact and agreement was carried out under the auspices of the Council of Great Lakes Governors,¹³² and while the parties to that effort might agree to reconvene if the compact is not ratified, they may be understandably reluctant to commit the same level of resources and effort to an entirely different ap-

132. See Great Lakes Water Management Initiative, *available at* <http://cglg.org/projects/water/index.asp>.

proach. Thus, an alternate framework may require an entirely new process. It should be a process that is compatible with the original initiative, that respects the work that has already been done, and that involves the principals in that effort to the extent possible. But the new process will ultimately have to stand on its own.

While the parties might avail themselves of any number of separate processes for rethinking the proposed compact, one stands out as uniquely suited to moving the management agenda forward in a manner that better involves the Canadian provinces and that may even obviate the need for an interstate compact. As previously described, Article X of the Boundary Waters Treaty allows Canada and the United States to refer to the International Joint Commission:

Any questions or matters of difference arising between the High Contracting Parties involving the rights, obligations, or interests of the United States or of the Dominion of Canada either in relation to each other or to their respective inhabitants..., it being understood that on the part of the United States any such action will be by and with the advice and consent of the Senate, and on the part of His Majesty's Government with the consent of the Governor General in Council.¹³³

Under this authority, Canada and the United States could refer to the IJC a question involving the allocation of water between the two countries, and presumably, even among the various states and provinces within those countries. Article X even contains a dispute resolution mechanism that will assure that any matter referred is ultimately resolved.¹³⁴ Moreover, the terms of the referral could be carefully structured to ensure that the IJC's jurisdiction is fairly narrow. It could be asked, for example, to allocate with specificity the water resources of the Great Lakes among the states and provinces based upon historical use and other factors delineated by the referring parties. The IJC might also be asked to identify appropriate sub-basins, taking into account hydrological and political boundaries, and to allocate water among the relevant jurisdictions within those sub-basins.

Admittedly, over the nearly one hundred-year history of the Boundary Waters Treaty, Canada and the United States have never referred a matter to the IJC for decision as authorized under Article X.¹³⁵ Yet there are several reasons for optimism that a narrow referral focused on resolving allocation of Great Lakes waters could happen. First, the Great Lakes Basin has more than enough water to satisfy the current and reasonably foreseeable future needs of the Great Lakes states and provinces. Thus, no party need worry that they will be deprived of their essential water needs. Second, since the IJC has already calculated current water use levels by the states and provinces, the parties already know their approximate allocation. Third, under

133. Boundary Waters Treaty, Article X.

134. *Id.* at Article X.

135. See DeWitt, *supra* note 22, at 308.

the current regime, as well as under the scheme established by the proposed compact, all parties have a perverse incentive to increase their share of Great Lakes water use as against the other parties. This follows from the fact that while the Supreme Court employs equitable principles in making allocation decisions among states,¹³⁶ historical use is invariably considered as the starting point for deciding what is equitable.¹³⁷ Finally, the parties, their leaders, and the vast majority of the Basin's residents sincerely desire a solution that conserves and protects the water and water dependent resources of the Basin.¹³⁸ If they understand that the current proposal, however well intentioned, is wholly inadequate to protect the Basin's water resources, then they should be open to alternate solutions, especially a solution that is far simpler, more efficient, less intrusive, and that can be easily configured to protect the ecological health of the Basin.

CONCLUSION

The Great Lakes are an international treasure and they warrant a comprehensive program to insure their protection. For too many years, the par-

136. *New Jersey v. New York*, 283 U.S. 336, 343 (1931) (“The different traditions and practices in different parts of the country may lead to varying results but the effort always is to secure an equitable apportionment without quibbling over formulas.”) The *New Jersey* case is the only case where the Court apportions a river between two riparian states. As such, it provides some insight into to how the Court might view an apportionment issue involving the Great Lakes. The *New Jersey* case involved a proposal by New York to divert a massive quantity of water from the Delaware River for New York City's municipal water supply. New Jersey sought to enjoin the entire diversion but the Court essentially decided the case by determining the amount of water New York could take without unduly harming New Jersey. *Id.* at 345-46. New York, the prospective “prior appropriator,” was thus allocated 440 million gallons per day based upon the finding that this amount of water could be withdrawn without causing harm to New Jersey's interests, which included New Jersey's use of the water for municipal, industrial, and agricultural purposes, as well as for recreational and fishing purposes. Professor Tarlock describes the decision as “a creative adaptation of the law of riparian rights to interstate conflicts.” A. Dan Tarlock, *The Law of Equitable Apportionment Revisited, Updated, and Restated*, 56 U. Colo. L. Rev. 381, ??? (1985). He notes that “[h]istorically, instream uses have been of greater importance compared to consumptive uses in riparian states, and the Court gave full weight to this aspect of riparianism by apportioning the most value attribute of the river, its base flow, and it gave full weight to another core riparian concept, preservation of the status quo among similar users.” *Id.* at ???.

137. *See, e.g., Nebraska v. Wyoming*, 325 U.S. 589 (1945), wherein the Supreme Court allocated the critical reach of the North Platte River 75% to Nebraska and 25% to Wyoming based roughly on historical use; see also, *Colorado v. New Mexico*, 467 U.S. 310 (1984) (essentially granting the entire flow of the Vermejo River to the senior users in New Mexico).

138. A 2003 survey by the Joyce Foundation of 1,539 Great Lakes residents found that 94% agree that each resident bears a personal responsibility for protecting the Great Lakes. <http://www.joycefdn.org/news/content/downloads/surveyresults.doc>. Perhaps, this overwhelming public support for protecting the Great Lakes will yet yield a solution that will make everyone proud.

ties with the greatest stake in protecting the Basin's water resources—the states and provinces within the Basin—have failed, both individually and collectively, to manage the lakes in a manner that would ensure their protection for future generations. The recent negotiations that led to the development of the proposed compact offer a glimmer of hope that the states and provinces are willing to take aggressive action to address this failure. Unfortunately, the prescription set forth in the proposed compact is far more complex and intrusive on state authority than it ought to be. More importantly, it is sorely inadequate for achieving the stated goal of the parties of protecting and conserving the water and water-dependent resources in the Basin. It may be daunting even to think about taking a fresh look at the problem, but the alternate framework suggested here offers a vehicle around which new negotiations might commence. The ecological health of the Great Lakes hangs in the balance of the decisions made on the proposed compact. It would be foolish not to step back and take a fresh look, if not for ourselves then for those future generations to whom we will leave our Great Lakes.