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The Great Lakes Water Resources Compact and Agreement: Transboundary Normativity without International Law

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**THE GREAT LAKES WATER RESOURCES COMPACT
AND AGREEMENT: TRANSBOUNDARY NORMATIVITY
WITHOUT INTERNATIONAL LAW**

Bradley C. Karkkainen[†]

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Management of transboundary river basins—or, for that matter, any transboundary natural system—is a notoriously difficult problem. Typically, political and legal authority is divided along geographic lines that do not map well onto the boundaries of natural systems, so that transboundary cooperation and coordination are needed to manage the resource effectively. In many cases, however, the transboundary natural system affects only a portion of each nation-state it straddles and thus may be perceived at the national level as a regional-level (and therefore lower priority) concern. This invites a certain level of indifference or even neglect at the level of nation-states—traditionally, the exclusive authors and subjects of public international law, which in its pure Westphalian form is said to consist of legal obligations owed by sovereign states to other sovereign states.¹

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1. In a classic definition, J.L. Brierly stated that international law is “the body of rules and principles of action which are binding upon civilized states in their relations with one another.” J.L. BRIERLY, *THE LAW OF NATIONS: AN INTRODUCTION TO THE INTERNATIONAL LAW OF PEACE* 1 (Sir Humphrey Waldock

That, in a nutshell, has been the historic pattern in North America's Great Lakes-St. Lawrence Basin. Straddling the boundary between the United States and Canada, the Great Lakes are arguably the world's most important freshwater system, comprising approximately twenty percent of the planet's fresh surface water.² The Great Lakes are also a priceless economic, aesthetic, recreational, cultural, and ecological asset. In 1909, the United States and Great Britain (on behalf of Canada) undertook to manage the Great Lakes and other transboundary waterways through the Boundary Waters Treaty.³ Subsequent ancillary agreements included a series of Great Lakes Water Quality Agreements. Yet despite these promising vehicles for transboundary cooperation, management of the Great Lakes has rarely been seen as a pressing national concern in either the United States or Canada. For their part, the eight U.S. states⁴ and two Canadian provinces⁵ that lie wholly or in part within the Great Lakes-St. Lawrence Basin individually lack the capacity to manage the lakes and the St. Lawrence River effectively without cooperation of all the others. Collectively, because they are not sovereign nation-states for purposes of international law and because their respective federal constitutions vest the foreign affairs power at the federal level,⁶ these subnational governments lack the legal authority to enter into binding transboundary agreements among themselves. What is needed, then, is some alternative coordinating mechanism—one that, unlike international law, does not depend on legally binding agreements between sovereign

ed., 6th ed. 1963). On this view, it was “widely agreed that states were the singular subjects of international law, with other actors existing only as objects of the law, interacting with the international legal system but only indirectly through their national governments.” Lauren Groth, *Transforming Accountability: A Proposal for Reconsidering How Human Rights Obligations Are Applied to Private Military Security Firms*, 35 HASTINGS INT'L & COMP. L. REV. 29, 49 (2012).

2. See GOV'T OF CANADA & U.S. ENVTL. PROT. AGENCY, THE GREAT LAKES: AN ENVIRONMENTAL ATLAS AND RESOURCE BOOK 3 (3d ed. 1995), available at <http://www.epa.gov/glnpo/atlas/index.html>.

3. Treaty Between the United States and Great Britain Relating to Boundary Waters, and Questions Arising Between the United States and Canada, U.S.-Gr. Brit., Jan. 11, 1909, 36 Stat. 2448 [hereinafter Boundary Waters Treaty].

4. Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, and New York.

5. Ontario and Quebec.

6. See U.S. CONST. art. I, § 10, cl. 1 (“No State shall enter into any Treaty, Alliance, or Confederation”); *id.* art. II, § 2, cl. 2 (“[The President] shall have Power, by and with the Advice and Consent of the Senate, to make Treaties . . .”).

nation-states, yet carries sufficient normative weight to actually influence and constrain the actions of subnational governments (in the case of the Great Lakes-St. Lawrence system, eight U.S. states and two Canadian provinces).

This article argues that the recently adopted Great Lakes Water Resources Compact⁷ and Agreement⁸ represent just such a subnational but transboundary coordinating mechanism. The substantive aims of the Compact and Agreement are relatively modest: they seek to curb or prevent large-scale exports of fresh water out of the Great Lakes-St. Lawrence basin.⁹ More important than the substantive goals, however, are the mechanisms by which these shared policy goals are to be implemented and enforced. The Compact is a legally binding agreement among the eight U.S. basin states, duly authorized by Congress as required by the U.S. Constitution.¹⁰ It requires its member states to adopt and implement enforceable processes, measures, and substantive commitments to manage Great Lakes Basin water withdrawals and diversions in accordance with standards set out in the Compact;¹¹ further, it establishes a regional coordinating body made up of representatives of the member states to make decisions of region-wide scope or impact and to review the member states' compliance with the Compact.¹² The Agreement is a parallel, non-binding,

7. Great Lakes-St. Lawrence River Basin Water Resources Compact, Pub. L. No. 110-342, 122 Stat. 3739 (2008) [hereinafter Compact].

8. Great Lakes-Saint Lawrence River Basin Sustainable Water Resources Agreement, Dec. 13, 2005 [hereinafter Agreement], *available at* http://www.cglg.org/projects/water/docs/12-13-05/Great_Lakes-St_Lawrence_River_Basin_Sustainable_Water_Resources_Agreement.pdf.

9. *See generally* Jessica A. Bielecki, *Managing Resources with Interstate Compacts: A Perspective from the Great Lakes*, 14 BUFF. ENVTL. L.J. 173 (2007) (recounting the legal and policy context and negotiating history of the Great Lakes Compact and Agreement).

10. U.S. CONST. art. I, § 10, cl. 3 ("No State shall, without the Consent of Congress, . . . enter into any Agreement or Compact with another State . . .").

11. *See, e.g.*, Compact, *supra* note 7, § 4.3(3) ("No Party may approve a Proposal [for a new or increased withdrawal, consumptive use, or diversion] if the Party determines that the Proposal is inconsistent with this Compact or the Standard of Review and Decision or any implementing rules or regulations promulgated thereunder."); *id.* § 4.11 (establishing a decision-making standard setting forth criteria for approval of withdrawals and consumptive uses, including, *inter alia*, requirements that return flows go to the watershed of origin; that there are no significant individual or cumulative adverse effects to water quality or quantity; that implementation incorporates environmentally sound and economically feasible water conservation measures; and that the proposed withdrawal or consumptive use is reasonable).

12. *See id.* §§ 2.1–2 (establishing a Great Lakes-St. Lawrence River Basin

good-faith agreement that extends identical requirements to the Canadian provinces of Ontario and Quebec, and establishes a Regional Body of which the eight states and two provinces are all members.¹³ Although the Agreement is legally non-binding (because U.S. states and Canadian provinces may not make international law), it is considered morally obligatory; and the eight U.S. states are already, in effect, legally bound to its substantive provisions insofar as they are identical to those in the legally binding Compact. The Compact, then, should ensure the cooperation and compliance of eight of the ten parties, thereby creating an incentive for Ontario and Quebec also to cooperate and comply, secure in the knowledge that there should be no defectors among the more numerous parties on the U.S. side of the border. Moreover, because each of the states and provinces has adopted implementing legislation to give effect to the commitments set out in the Compact and Agreement,¹⁴ even the provinces have in a sense bound themselves. It is in that sense that the Compact and Agreement create a unique kind of transboundary normativity, even in the absence of public international law.

Part I of this article will briefly describe the Great Lakes-St. Lawrence ecosystem and the environmental and natural resource management challenges it entails, as well as the principal institutions that have evolved to attempt to address those challenges. Part II will describe the Great Lakes Water Resources Compact and the Great Lakes Sustainable Water Resources Agreement, discuss the impetus for the development of these instruments, and assess their significance for transboundary coordination in the Great Lakes Basin. Part III will explore the implications of these developments for transboundary coordination

Water Resources Council consisting of the governors of the states party to the Compact and defining its powers and duties); *id.* § 3.4(2) (authorizing the Council to review the water management and conservation programs and policies of the parties); *id.* § 4.5(1)(f) (providing for regional review of “regionally significant or potentially precedent-setting” proposals for withdrawals or consumptive uses).

13. See Agreement, *supra* note 8, art. 400(1)–(2) (establishing a Regional Body “composed of the Governor or Premier of each of the Parties, or a person designated by each of them”).

14. See *Projects: Great Lakes-St. Lawrence River Basin Water Resources Compact Implementation*, COUNCIL GREAT LAKES GOVERNORS, <http://www.cglg.org/projects/water/CompactImplementation.asp> (last updated Feb. 17, 2011) (providing a link to implementing state legislation).

in the Great Lakes and in other transboundary natural resource management contexts.

I. THE GREAT LAKES-ST. LAWRENCE BASIN AND ITS MANAGEMENT CHALLENGES

The Great Lakes-St. Lawrence Basin spans a vast area in the heart of the North American continent. Comprising five of the world's twelve largest continental lakes by area, including three of the four largest,¹⁵ plus North America's second largest river by discharge,¹⁶ the Great Lakes-St. Lawrence system is one of the world's mightiest and most important freshwater systems. The Great Lakes-St. Lawrence Basin is also home to six of the United States' fifty-one largest metropolitan areas and eleven of Canada's twenty largest population centers, including its two largest, Toronto and Montreal. The volume of water in the lakes constitutes approximately 20% of the world's fresh surface water and 95% of the fresh surface water in the forty-eight contiguous states.¹⁷ But they are more than a reservoir of freshwater for human consumption. The Great Lakes are also an extraordinary scenic, aesthetic, recreational, commercial, and ecological resource, a true "inland sea" extending deep into the industrial and agricultural heartlands of both the United States and Canada, a region of some forty million people.¹⁸

15. Lake Superior is the largest of the Great Lakes and the world's second largest lake, Lake Huron is the world's fourth largest, and Lake Michigan is fifth. Lake Erie is thirteenth, and Lake Ontario is seventeenth. *About Our Great Lakes: Lake by Lake Profiles*, NAT'L OCEANIC & ATMOSPHERIC ADMIN.: GREAT LAKES ENVTL. RES. LABORATORY, <http://www.glerl.noaa.gov/pr/ourlakes/lakes.html> (last visited January 25, 2013). The Caspian Sea is considerably larger than Lake Superior, but geologically it is considered a small ocean, an isolated remnant of the much larger global ocean of which it was once a contiguous part.

16. The Mississippi-Missouri River discharges about fifty percent more water into the Gulf of Mexico than the St. Lawrence discharges into the North Atlantic. See *FIELD GUIDE TO RIVERS OF NORTH AMERICA* 3 tbl.1 (Arthur C. Behnke & Colbert E. Cushing eds., 2010) (listing the Mississippi as the largest North American river by discharge at 18,400 cubic meters per second and the St. Lawrence second at 12,600 cubic meters per second).

17. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-03-515, *GREAT LAKES: AN OVERALL STRATEGY AND INDICATORS FOR MEASURING PROGRESS ARE NEEDED TO BETTER ACHIEVE RESTORATION GOALS* 11 (2003).

18. See *id.* at 38; Susan H. MacKenzie, *Toward Integrated Resource Management: Lessons About the Ecosystem Approach from the Laurentian Great Lakes*, 21 ENVTL. MGMT. 173, 174 (1997).

Yet the Great Lakes are also a deeply stressed and a deeply challenged resource. Lake Erie was famously written off as “dead” in the 1960s and early 1970s, the victim of eutrophication so severe that it was choking off aquatic life.¹⁹ Many believed it would never recover, and Lake Michigan and Lake Ontario were thought to be headed down the same path.²⁰ Strong measures to clean up the largest pollution inputs—municipal sewage and industrial outfalls—have led to marked improvements in water quality and partial restoration of fish populations. The Lakes nonetheless remain highly stressed by excessive nutrient loads; festering toxic “hotspots” in harbors and near-historic industrial outfalls; and biological pollution in the form of invasive exotic species carried in with ships’ ballast water or infiltrating through rivers and canals, displacing native species and disrupting the food webs and ecological relationships that define aquatic life in the Great Lakes.²¹

Together, the United States and Canada have put in place some institutions and some important agreements, beginning with the Boundary Waters Treaty,²² which committed the parties to observe freedom of navigation and commerce in the Great Lakes and other boundary waters;²³ to regulate obstructions, diversions, and artificial elevations or diminutions of natural lake levels;²⁴ and to resolve management questions and disputes amicably.²⁵ Toward

19. RICHARD N.L. ANDREWS, *MANAGING THE ENVIRONMENT, MANAGING OURSELVES: A HISTORY OF AMERICAN ENVIRONMENTAL POLICY* 224, 415 n.36 (1999) (attributing the statement to biologist and environmental advocate Barry Commoner and stating that it was widely cited in the popular media in the late 1960s); DAVE DEMPSEY, *ON THE BRINK: THE GREAT LAKES IN THE 21ST CENTURY* 113–15 (2004) [hereinafter *DEMPSEY, ON THE BRINK*]; DAVE DEMPSEY, *RUIN & RECOVERY: MICHIGAN’S RISE AS A CONSERVATION LEADER* 248 (2001) [hereinafter *DEMPSEY, RUIN & RECOVERY*] (stating that *Life* magazine declared Lake Erie “dead” in the 1960s).

20. See *DEMPSEY, RUIN & RECOVERY*, *supra* note 19, at 249 (stating that *Newsweek* magazine announced a “death watch” for Lake Michigan in 1967).

21. See Bradley C. Karkkainen, *Managing Transboundary Aquatic Ecosystems: Lessons from the Great Lakes*, 19 *PAC. MCGEORGE GLOBAL BUS. & DEV. L.J.* 209, 215–18 (2006) and sources cited therein (cataloging environmental problems in the Great Lakes).

22. Boundary Waters Treaty, *supra* note 3.

23. *Id.* art. I.

24. *Id.* art. III (prohibiting uses, obstructions, or diversions that alter natural levels except as authorized by the International Joint Commission).

25. See *id.* pmbl. (stating that the parties are “equally desirous to prevent disputes regarding the use of boundary waters and to settle all questions which are now pending between the United States and the Dominion of Canada involving the rights, obligations, or interests of either in relation to the other or to the inhabitants of the other, along their common frontier, and to make provision for the adjustment and settlement of all such questions as may hereafter arise”).

that end, the Treaty established the International Joint Commission (IJC),²⁶ a remarkable binational institution empowered to make regulatory decisions over certain proposed actions affecting the boundary waters,²⁷ to investigate and make recommendations to the governments on questions they refer to it (“references”),²⁸ and to arbitrate disputes.²⁹

The Boundary Waters Treaty is a prime example of public international law in its classical Westphalian sense: a contractual undertaking freely entered by autonomous and, in principle, equal national sovereigns, setting forth a series of mutual inter-sovereign obligations. Perhaps the most striking innovation in the Boundary Waters Treaty, however, was the creation of a genuinely binational institution, the IJC, to act as an independent and impartial umpire—not merely a political or diplomatic forum for the principals to negotiate, but within its areas of jurisdiction, an independent decision maker in its own right, as well as an independent adviser to the governments.³⁰ Creation of the IJC was a bold and visionary step. Sovereign nations are typically loath to surrender actual decision-making authority to anyone, let alone an independent binational (or multi-national) commission, and few sovereigns are more reluctant on this score than the United States.

The Boundary Waters Treaty is widely celebrated for establishing the IJC. Less widely appreciated is that the Boundary Waters Treaty was one of the world’s first treaties to squarely

26. *Id.* art. VII (creating the IJC composed of six members, three appointed by the President of the United States and three appointed by the British Crown on the recommendation of the Governor in Council of Canada).

27. *Id.* art. VIII (authorizing the IJC to regulate uses, obstructions, and diversions, and setting out a priority of uses to be followed by the IJC).

28. *Id.* art. IX (committing the Parties to refer “questions or matters of difference arising between them” to the IJC, which is empowered to “examine into and report upon the facts and circumstances of the particular questions and matters referred, together with such conclusions and recommendations as may be appropriate”).

29. *Id.* art. X (providing that by mutual consent the Parties may refer “[a]ny questions or matters of difference” to the IJC “for decision” by majority vote of the Commission).

30. The six IJC Commissioners are appointed by the national governments, three per side, but by tradition Commissioners exercise independent judgment on behalf of the Commission and not as representatives of their respective governments. See LEE BOTTS & PAUL MULDOON, *EVOLUTION OF THE GREAT LAKES WATER QUALITY AGREEMENT* 11–13 (2006) (describing the Commissioners’ tradition of independent, objective judgment not beholden to nationalistic concerns); DEMPSEY, *ON THE BRINK*, *supra* note 19, at 244–45.

address transboundary pollution,³¹ and thus it represents a major precursor to modern international environmental law. Tucked into Article IV of the Treaty is this simple yet sweeping commitment: “It is further agreed that the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other.”³²

With that simple bilateral commitment, the United States and Canada embraced a mutual obligation to prevent significant harm by transboundary pollution—the first clear expression in treaty law of the great principle of state responsibility to prevent serious transboundary environmental harm. That principle would later find embodiment in the celebrated *Trail Smelter* arbitration,³³ which in turn would lend its name to the *Trail Smelter* principle, widely considered a cornerstone of the customary international law of the environment.³⁴

Notwithstanding the brave words and bold vision of the Boundary Waters Treaty, however, transboundary pollution control remained a minor concern of the governments of the United States and Canada throughout the early decades of the twentieth century. An exhaustive IJC investigation of waterborne diseases, begun in

31. See Edith Brown Weiss, *International Environmental Law: Contemporary Issues and the Emergence of a New World Order*, 81 GEO. L.J. 675, 675 (1993) (describing the pollution provision of the Boundary Waters Treaty as a “dramatic exception” to the typical treaties of its day which addressed water allocation, navigation, and fishing to the exclusion of environmental concerns); see also Ludwik A. Teclaff & Eileen Teclaff, *International Control of Cross-Media Pollution—An Ecosystem Approach*, 27 NAT. RESOURCES J. 21, 24 & nn.13–14 (1987) (discussing the 1909 Boundary Waters Treaty and the 1904 Franco-Swiss Convention for the Regulation of Fishing of Frontier Waters as early bilateral agreements addressing transboundary pollution).

32. Boundary Waters Treaty, *supra* note 3, art. IV.

33. *Trail Smelter Case* (U.S. v. Can.), 3 R.I.A.A. 1905 (1941). The *Trail Smelter* case involved damage to crops, orchards, and forests in the State of Washington from sulfur oxide fumes emanating from a Canadian lead and zinc smelter. The arbitral tribunal held that “no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.” *Id.* at 1965.

34. See, e.g., Michael N. Schmitt, *Green War: An Assessment of the Environmental Law of International Armed Conflict*, 22 YALE J. INT’L L. 1, 44–45 (1997) (describing “the maxim *sic utere tuo ut alienum non laedas*—use your property in such a manner so as not to injure another” as “the most basic and widely accepted traditional principle” of customary international environmental law and the basis for the decision in the *Trail Smelter* case).

1912 on a reference from the governments, ended in sweeping IJC recommendations for pollution control measures in 1918, but these recommendations were never acted upon by the governments.³⁵

When the Treaty finally did prompt some action in the latter half of the twentieth century, however, its impact was great. In response to a 1946 reference, a 1950 IJC report recommended “urgent action” to address rising pollution levels in the St. Mary’s, St. Clair, Detroit, and Niagara Rivers and in Lake St. Clair.³⁶ The IJC report led to the adoption of significant monitoring and pollution abatement measures on both sides of the border,³⁷ measures that have been called “the first of their kind on an international basis.”³⁸ One commentator has argued that these early water quality standards were the main progenitors of what became the principal pollution abatement programs of both the United States and Canada.³⁹ If that analysis is correct, then the seemingly modest and long-ignored little pollution control provision in the Boundary Waters Treaty might be seen as a progenitor of nothing less than the Clean Water Act on the one hand, and modern international environmental law on the other.

But perhaps the greatest contribution of the Boundary Waters Treaty to the development of environmental law came through its direct progeny, the Great Lakes Water Quality Agreement (GLWQA),⁴⁰ first adopted in

35. See DEMPSEY, ON THE BRINK, *supra* note 19, at 98–99.

36. BOTTIS & MULDOON, *supra* note 30, at 13.

37. *Id.*

38. *Id.*; see also Don Munton, *Dependence and Interdependence in Transboundary Environmental Relations*, 36 INT’L J. 139, 159 (1980–81) (stating that the Great Lakes Water Quality Agreement “represented both a significant innovation in the bilateral relationship” between the U.S. and Canada and “a unique achievement in international politics” insofar as it created a joint board to coordinate national pollution control programs and to monitor and report independently on the condition of the aquatic resource).

39. Don Munton, *Great Lakes Water Quality: A Study in Environmental Politics and Diplomacy*, in RESOURCES AND THE ENVIRONMENT: POLICY PERSPECTIVES FOR CANADA 153, 155 (O.P. Dwivedi ed., 1980).

40. Agreement on Great Lakes Water Quality, U.S.-Can., Apr. 15, 1972, 23 U.S.T. 301 [hereinafter GLWQA]. The 1972 agreement was superseded by a subsequent instrument, the Great Lakes Water Quality Agreement of 1978, done at Ottawa on November 22, 1978, which in turn was amended on October 16, 1983, and November 18, 1987. See *infra* notes 59, 66 and accompanying text. The most recent iteration is the Great Lakes Water Quality Protocol of 2012, signed by the United States and Canada in Washington on September 7, 2012, which amends the 1978 Agreement, as amended. See *infra* note 70 and accompanying

1972⁴¹ and amended at intervals in subsequent years.⁴² For both the United States and Canada, the GLWQA represented their first major foray into modern international environmental law. There had, of course, been bilateral, regional, and multilateral agreements on wildlife and other natural resources prior to 1972,⁴³ and in limited ways, pollution control had also begun to creep into international law well before the 1970s—for example, through the *Trail Smelter* arbitration and the pollution control provision of the Boundary Waters Treaty itself. But the GLWQA was a new breed of agreement—a binational agreement dedicated exclusively to pollution control in a transboundary setting.⁴⁴

At first, the GLWQA was understood as simply a subsidiary agreement in furtherance of the Boundary Waters Treaty's Article IV pollution control provision. Under that provision, in 1964 the IJC undertook a reference on pollution in Lake Erie—an issue of rising public concern in the wake of visible, rapidly worsening, and widely publicized eutrophication.⁴⁵ While the IJC investigation was ongoing, the public's attention was riveted by Great Lakes beach closures, a fire that broke out on Cleveland's Cuyahoga River, and a massive alewife die-off in Lake Michigan, as well as reports of plans for oil drilling on the bed of Lake Erie surfacing shortly after the disastrous 1969 oil spill in California's Santa Barbara Channel, perhaps the first major environmental disaster to be viewed by millions on television.⁴⁶

The IJC assembled panels of experts, investigated, held public

text.

41. BOTTIS & MULDOON, *supra* note 30, at 1.

42. The Agreement was amended in 1978 and a Protocol was attached in 1987. *Id.* at 51, 89.

43. *See, e.g.*, Convention Between the United States and Great Britain (for Canada) for the Protection of Migratory Birds, U.S.-Gr. Brit., Aug. 16, 1916, 39 Stat. 1702.

44. A handful of earlier agreements, all of them European, had tackled transboundary water pollution in regional settings, but the earlier agreements were generally limited to setting up institutions to arrange for research, conduct fact-finding, and make advisory recommendations to governments. *See* C.B. Bourne, *International Law and Pollution of International Rivers and Lakes*, 6 U. BRIT. COLUM. L. REV. 115, 131-32 (1971). For example, the International Commission for Protection of the Rhine was established by treaty in 1950 to arrange for research into Rhine pollution and to make recommendations to Rhine basin governments, but specific pollution control objectives were not specified for the Rhine by international agreement until 1976. PATRICIA BIRNIE & ALAN BOYLE, *INTERNATIONAL LAW & THE ENVIRONMENT* 243 (2d ed. 2002).

45. *See* DEMPSEY, ON THE BRINK, *supra* note 19, at 123-25.

46. *See* BOTTIS & MULDOON, *supra* note 30, at 14.

hearings, and issued its final report on Lake Erie eutrophication in 1970, urging new and more detailed water quality objectives and pollution control measures.⁴⁷ Acknowledging that existing levels of pollution were incompatible with their commitments under the Boundary Waters Treaty, the governments convened a working group that negotiated the first GLWQA, completing its work in 1972.⁴⁸

As a formal matter, the GLWQA was and remains an executive agreement implementing Article IV of the Boundary Waters Treaty.⁴⁹ But it has also taken on a life of its own as our oldest, and in some ways most durable, international environmental agreement. Its initial goal was narrowly conceived: to restore and enhance “water quality in the Great Lakes system” by establishing water quality standards for nutrients; toxic substances; materials that produce colors, odors, or other nuisance-like effects; “floating debris, oil, scum and other floating materials”; and “substances that . . . settle to form putrescent or otherwise objectionable sludge deposits.”⁵⁰ But the principal focus of pollution control efforts was on phosphorus, which had been identified as the main culprit in Lake Erie eutrophication.⁵¹ The GLWQA was originally understood, then, as a simple pollution control agreement, motivated principally by a concern about phosphorus, the dominant pollution threat in the Great Lakes of the 1960s and 1970s and still a critically important one, but only one in what is now understood to be a much broader suite of stressors on the aquatic environment of the Great Lakes.

It quickly became apparent, however, that the 1972 GLWQA was too narrowly drawn. Phosphorus pollution in Lake Erie was reduced quickly and sharply with the construction of modern sewage treatment plants and the adoption of limitations on the use of phosphates in detergents, but the environmental problems confronting the Great Lakes turned out to be both more numerous

47. *Id.*

48. *Id.* at 15.

49. *See* GLWQA, *supra* note 40, art. VI (stating that the IJC “shall assist in the implementation” of the GLWQA and specifying the IJC’s implementation responsibilities pursuant to Article IX of the Boundary Waters Treaty); *id.* art. XI (“Nothing in this Agreement shall be deemed to diminish the rights and obligations of the Parties as set forth in the Boundary Waters Treaty.”).

50. *Id.* pmb. & art. II.

51. BOTTIS & MULDOON, *supra* note 30, at 27.

and more complex than the original GLWQA had contemplated.⁵² Research conducted in the 1970s pointed to new problems—concentrated “hotspots” of toxic contaminants in ports and at industrial outfalls, the buildup of bioaccumulative toxins in the flesh of fish and other aquatic life, airborne deposition of pollutants, and the contributions of nonpoint pollution sources along the shores of the Great Lakes and far inland along their tributaries.⁵³

The 1972 Agreement had also set in motion processes that mounted pressure for change. By the terms of the 1972 Agreement, the IJC was to report periodically on progress toward the Agreement’s water quality objectives and make recommendations to the governments.⁵⁴ This built on the IJC’s role as independent and impartial adviser to the governments, but at the same time partially transformed the IJC into an independent “watchdog” accountability mechanism in the pollution control arena. The original Agreement also committed the governments to undertake a five-year review of the Agreement’s effectiveness with an eye toward making such revisions as would be necessary⁵⁵—thus setting in motion a dynamic, iterative, rolling review and revision process, not only of the Agreement’s overall goals and objectives but also of the management approaches and institutional arrangements that might be necessary to achieve environmental improvements. Finally, among the institutional arrangements that emerged out of the 1972 Agreement were several that dramatically opened the process to citizen participation.⁵⁶

In 1978, the governments adopted an amended GLWQA,

52. *See id.* at 52–57 (stating that scientists identified PCBs and other bioaccumulative toxic pollutants, nonpoint source pollution, airborne deposition of pollutants, and other threats to the Great Lakes ecosystem).

53. *See id.* at 54–58.

54. GLWQA, *supra* note 40, art. VI, § 3 (mandating that the IJC report to the Parties and governments on progress toward meeting water quality objectives and effectiveness of programs and measures, and offer its recommendations); *id.* art. IX, § 1 (mandating that the Parties consult on IJC reports and recommendations submitted under Article VI, section 3, and that they consider modifications of water quality objectives, programs and measures, and the Agreement, as appropriate).

55. *Id.* art. IX, § 3 (mandating that the Parties conduct a “comprehensive review” of the Agreement during its fifth year in force).

56. *See* BOTTIS & MULDOON, *supra* note 30, at 39–44 (describing the emergence of environmental organizations, coupled with enhanced opportunities for public participation in proceedings of the IJC and other Great Lakes institutions).

going beyond the 1972 Agreement both in the scope and nature of the problems to be addressed and in the means to be used to address them.⁵⁷ At the urging of the IJC's Great Lakes Research Advisory Board, the 1978 Agreement introduced the concept of an ecosystem approach to management,⁵⁸ with the ambitious aim to "restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem," as well as to "eliminate [toxic] pollutants."⁵⁹ This was the first time an international agreement of any kind had embraced an "ecosystem approach" and such a sweeping, multi-faceted ecological restoration goal⁶⁰—although some commentators have suggested the implications of this language may not have been fully appreciated by all participants in the negotiating sessions that led to the adoption of the 1978 Agreement.⁶¹

The ecosystem approach articulated in the 1978 amendments to the GLWQA would later be emulated in subsequent natural resource management regimes elsewhere in the United States⁶² and Canada,⁶³ internationally,⁶⁴ and globally.⁶⁵ Once again, the Great

57. See *id.* at 51–52 (stating that the 1978 Agreement embraced new goals, including an "ecosystem approach" and "virtual elimination" of toxic pollutants); *id.* at 66–69 (stating that the adoption of an ecosystem approach and the goal of virtual elimination of toxics necessitated a broadening of management efforts to address non-chemical stressors, tributary waters, land use impacts on ecosystem health, contaminated sediments, and airborne deposition of pollutants).

58. See DEMPSEY, ON THE BRINK, *supra* note 19, at 188–91.

59. Great Lakes Water Quality Agreement of 1978, U.S.-Can., art. II, Nov. 22, 1978, 30 U.S.T. 1383.

60. Ludwik A. Teclaff, *Evolution of the River Basin Concept in National and International Water Law*, 36 NAT. RESOURCES J. 359, 378 & n.111, 379 (1996) (noting that although the Stockholm Declaration called for audits of development projects in "representative ecosystems of international significance," the 1978 GLWQA was the first instrument to call for an "ecosystem approach" to natural resource management).

61. BOTTIS & MULDOON, *supra* note 30, at 63.

62. See, e.g., CHESAPEAKE BAY PROGRAM, <http://www.chesapeakebay.net> (last visited Jan. 26, 2013); *Everglades Restoration*, FLA. DEPARTMENT ENVTL. PROTECTION, <http://www.dep.state.fl.us/secretary/everglades/> (last visited Jan. 26, 2013).

63. See, e.g., FISHERIES & OCEANS CAN., PACIFIC NORTH COAST INTEGRATED MANAGEMENT AREA: AN ECOSYSTEM APPROACH 2–4, available at <http://www.pac.dfo-mpo.gc.ca/publications/pdfs/pncima-eng.pdf> (describing an "integrated, ecosystem approach" to managing British Columbia's Queen Charlotte Basin in the North Pacific, and stating that "[t]his is consistent with the Government of Canada's overall direction and with Fisheries and Oceans Canada's new *Wild Salmon Policy*").

64. See, e.g., Convention on the Protection of the Marine Environment of the Baltic Sea Area, Apr. 9, 1992, art. III, subdiv. 1 (entered into force Jan. 17, 2000), available at http://www.helcom.fi/Convention/en_GB/text/ (stating an

Lakes regime spawned by the Boundary Waters Treaty proved to be an innovator and pacesetter for the world community.

The broad ecosystem restoration goals enunciated in the revised 1978 Agreement were largely kept intact when a new 1987 Protocol was negotiated,⁶⁶ and these goals remain foundational to the Great Lakes management regime today. But the 1987 Protocol added several important wrinkles. First, in recognition of the important role of airborne deposition of pollutants, air pollution control was explicitly added to the Agreement's list of objectives.⁶⁷ Second, while maintaining overall basin-wide ecosystem restoration goals, the parties committed to develop Remedial Action Plans for identified "areas of concern" (toxic hotspots) throughout the Great Lakes Basin and launched a process to develop management plans at the level of the individual lakes.⁶⁸ The 1987 Protocol thus incorporated an innovative "nested" management scheme at multiple interconnected scales, another important innovation and one more significant evolutionary step in the iterative unfolding of Great Lakes governance.⁶⁹

A recently adopted 2012 Protocol makes additional commitments.⁷⁰ It expressly recognizes aquatic invasive species, discharges from ships, climate change, and habitat and species loss

overarching goal to "promote the ecological restoration of the Baltic Sea Area and the preservation of its ecological balance").

65. See, e.g., Teclaff, *supra* note 60.

66. Protocol Amending the 1978 Agreement Between the United States and Canada on Great Lakes Water Quality, as Amended on October 16, 1983, U.S.-Can., Nov. 18, 1987, T.I.A.S. No. 11,551 [hereinafter 1987 Protocol].

67. *Id.* art. XIX (adding a new Annex 15 to commit the Parties to research, surveillance, monitoring, and control measures on airborne toxic pollutants).

68. *Id.* art. VIII (amending Annex 2 to commit the Parties to undertake Remedial Action Plans for designated Areas of Concern and to develop and implement Lakewide Management Plans for each of the Great Lakes).

69. U.S. ENVTL. PROT. AGENCY: GREAT LAKES NAT'L PROGRAM OFFICE, GREAT LAKES ECOSYSTEM REPORT 2000, at E-1 (2001) (describing the Great Lakes Program as a "nested structure . . . meant to parallel the natural boundaries found in the Great Lakes ecosystem: from local landscapes to sub-watersheds, to individual lake basins, to the entire Great Lakes Basin"); Henry A. Regier, *Great Lakes-St. Lawrence River Basin Assessments: Case Study*, in BIOREGIONAL ASSESSMENTS: SCIENCE AT THE CROSSROADS OF MANAGEMENT AND POLICY 135, 138 (K. Norman Johnson et al. eds., 1999) ("[T]he bioregional assessment process has self-organized into an implicit three-level holarchy.").

70. Protocol Amending the Agreement Between Canada and the United States of America on Great Lakes Water Quality, 1978, as Amended on October 16, 1983 and on November 18, 1987, U.S.-Can., Sept. 7, 2012 [hereinafter 2012 Protocol].

as priority concerns⁷¹ and places special emphasis on restoration and maintenance of nearshore areas, where stressors tend to be greatest.⁷² The governments pledge to adopt common objectives, to implement cooperative programs, and to involve key subnational actors including states, provinces, municipalities, Tribal Governments, First Nations, watershed management agencies, and the public in Great Lakes management and restoration.⁷³ The parties promise heightened transparency and accountability through adoption of specific objectives for each lake and at basin-wide scales,⁷⁴ coupled with enhanced monitoring and reporting requirements.⁷⁵ They pledge to use an adaptive management approach.⁷⁶ The 2012 Protocol contemplates an enhanced role for

71. See *id.* app., pmb., cl. 4 (“[e]mphasizing the need to strengthen efforts to address new and continuing threats . . . , including aquatic invasive species, nutrients, chemical substances, discharge from vessels, the climate change impacts, and the loss of habitats and species”); see also *id.* annex 5 (discharges from vessels); *id.* annex 6 (aquatic invasive species); *id.* annex 7 (habitat and species); *id.* annex 8 (groundwater); *id.* annex 9 (climate change impacts).

72. *Id.* app., pmb., cl. 7 (“[r]ecognizing that nearshore areas must be restored and protected because they are the major source of drinking water for communities within the basin, are where most human commerce and recreation occurs, and are the critical ecological link between watersheds and the open waters of the Great Lakes”).

73. *Id.* app., art. 3, § 1(a) (adopting common General Objectives); *id.* app., art. 3, § 1(b) (committing the parties to consult and cooperate with state and provincial governments, tribes, First Nations, Métis, municipal governments, watershed management agencies, other local public agencies, downstream jurisdictions, and the public to identify and work to attain Specific Objectives, including lake ecosystem objectives and substance objectives); *id.* app., art. 4 (committing the parties to develop and adopt implementation programs and measures in cooperation and consultation with the same various persons and institutions).

74. *Id.* app., art. 3, § 1(b)(i)(A) (committing to the establishment of binational lake ecosystem objectives, except for Lake Michigan which lies wholly within the United States); *id.* app., art. 3, § 1(b)(ii) (committing to the establishment of basinwide substance objectives).

75. *Id.* app., art. 3, § 3 (monitoring); *id.* app., art. 3, § 4 (reporting). The various annexes also include issue-specific monitoring and reporting requirements. See, e.g., *id.* app., annex 4(E)–(F) (establishing monitoring and reporting requirements for nutrients); *id.* app., annex 6(B)–(D) (establishing monitoring, surveillance, assessment, and reporting requirements for aquatic invasive species).

76. *Id.* app., art. 2, § 4(b) (committing the parties to be “guided by” principles of adaptive management, “implementing a systematic process by which the Parties assess effectiveness of actions and adjust future actions to achieve the objectives of this Agreement, as outcomes and ecosystem processes become better understood”).

the International Joint Commission⁷⁷ and its subsidiary bodies, including the Great Lakes Water Quality Board, Great Lakes Science Advisory Board, and Great Lakes Regional Office,⁷⁸ though the IJC's role remains largely one of information gathering and advising. Indeed, the 2012 Protocol underscores that operational responsibility for implementation of all these commitments remains the sole responsibility of the national governments; both the IJC and subnational actors are relegated to an advisory and consultative role.⁷⁹

Without question, the Boundary Waters Treaty and its progeny, the Great Lakes Water Quality Agreement, have been profoundly influential, both within the Great Lakes Basin and beyond. They serve as cornerstones of the larger U.S.-Canadian relationship, and time and again they have served as early prototypes and innovative models for what have become widely adopted principles and approaches embraced in both national and international law. They represent, in important ways, the best that international law, and especially international environmental law, has achieved.

And yet there is a certain irony to that characterization. For at the end of the day, even the most enthusiastic proponents of these arrangements concede that, in practice, they have often fallen short of their lofty ambitions. As innovative and visionary as the GLWQA has been—and as much as it has inspired its own imitators elsewhere—it has largely been a failure if measured by its concrete achievements since its early success in reducing phosphorus levels. The Great Lakes are still under enormous stress, and progress toward addressing those stressors has been in most areas painfully

77. *Id.* app., art. 7, § 1(a)–(o) (assigning IJC responsibilities for, *inter alia*, analyzing and disseminating data and information, tendering advice and recommendations to the parties, providing assistance to the parties as requested in coordinating their joint activities, assisting in and advising on scientific matters, investigating subjects referred to it by the parties, consulting with the public, and raising public awareness).

78. *Id.* app., art. 8 (calling on the IJC to create a Great Lakes Water Quality Board, a Great Lakes Science Advisory Board, and a Great Lakes Regional Office, and defining the responsibilities of each body).

79. *See id.* app., art. 3, § 2 (“The Parties shall progress toward the attainment of these General Objectives, Lake Ecosystem Objectives and Substance Objectives through their respective domestic programs.”); *id.* app., art. 4, § 1 (“The Parties, *in cooperation and consultation with* State and Provincial Governments, Tribal Governments, First Nations, Métis, Municipal Governments, watershed management agencies, other local public agencies, and the Public, shall develop and implement programs and other measures” (emphasis added)).

slow, or even nonexistent.

Some have argued that the governments of the United States and Canada made a strategic blunder—either that, or a shrewd but cynical calculated choice—when they decided to leave responsibility for implementing the GLWQA entirely in their own hands, declining to give the IJC or any other binational body implementation and operational authority over environmental matters.⁸⁰ Instead, the IJC is left on the outside, with authority only to observe, investigate, report, offer criticism and suggestions, and jawbone as environmental problems in the Great Lakes Basin continue to get short shrift and as commitments nominally undertaken by the governments through the GLWQA go unfulfilled. Arguably, had the governments vested authority in the IJC to make binding decisions on implementation measures, we might be farther down the road toward fulfilling the unmet promises of the 1978 GLWQA and its 1987 Protocol.

An alternative hypothesis, equally plausible in my view, is that the failure of the GLWQA to get traction on the daunting environmental challenges of the Great Lakes reveals something deeper about the limits of international environmental law as a tool to address complex transboundary environmental and natural resource management problems. That is to say, the situation in the Great Lakes region might best be understood not as a simple failure to implement ambitious bilateral agreements. Maybe the more fundamental problem is that the nature of the instrument is poorly matched to the nature of the challenges involved. The suggestion here is that a contractual agreement between two sovereign states is not the kind of instrument—and not the right kind of institutional arrangement—that can actually *do* something as complex and multidimensional as an “ecosystem approach to management,” especially at this large, basin-wide, regional scale, and most especially given the extraordinarily complex suite of resources and stressors that comprise the system.

Perhaps the problem, in other words, is that international environmental law itself—as conventionally and classically understood, consisting of mutual contractual obligations freely undertaken between national sovereigns—is inadequate to the task

80. See, e.g., Alisa Tschorke, *Great Lakes Water Quality Agreement: Is Honesty Without Accountability or Enforcement Still Enough?*, 15 MO. ENVTL. L. & POL'Y REV. 273, 287–99 (2008) (criticizing the GLWQA for failure to include public accountability and enforcement measures).

of managing as complex and multifaceted a transboundary resource as the Great Lakes. On this view, the failure is not simply a failure to implement or perform on a contract; instead, the contractual approach itself is a flawed approach for the undertaking.

If that is the case, then it is time to rethink the institutional arrangements from the ground up. What is most striking about the GLWQA, in its many iterations, is the mismatch between its bold expression of intent to undertake an ecosystem approach and its almost total inattention to questions of institutional design; i.e., how would we go about putting in place the ongoing institutional arrangements that would be necessary to make an “ecosystem approach to management” actually happen? It’s as if the drafters of that instrument believed that simply getting the governments to undertake a contractual commitment to an ecosystem approach would create enough normative pressure to cause them to take the hard follow-up steps of designing the institutional arrangements that would make an ecosystem approach possible and then executing that institutional design. But that is an effort the governments have never even initiated in a serious way, despite the passage of more than three decades since the words “ecosystem approach” were first written into the contract.

A moment’s reflection would suggest that integrated management of the entire suite of stressors and resources implicated in a genuine ecosystem approach would require the participation not only of the national governments but also of the states and provinces, which bring supplemental and in some cases unique capacities and competencies to the table, along with intimate familiarity with environmental, social, economic, and legal conditions in the Great Lakes Basin—and just possibly more political will than the national governments, which tend to see the Great Lakes as a regional and not a truly national concern, and consequently of secondary or tertiary importance. Such an effort would probably need to include some local public authorities as well—major cities, port authorities, water and sewer districts, watershed management agencies, and the like. It might need to include some intergovernmental organizations—the IJC, as well as the Great Lakes Fishery Commission, the Great Lakes Commission, and the Council of Great Lakes Governors. It needs to include tribal and First Nations authorities. It needs to find a way to integrate input from leading scientists familiar with the Basin or

whose work is directly relevant to the management challenges at hand. To build legitimacy, transparency, and public support, it probably needs to include leading non-governmental organizations as well.

At some level, these groups already talk to one another, and all are involved in one way or another with important aspects of Great Lakes governance. But for all the hard work and good work that has gone into the Great Lakes over the past four decades, precious little has gone into actually thinking through the design of governance institutions that would be capable of making an ecosystem approach a reality, and not merely words on paper.

II. THE GREAT LAKES COMPACT AND AGREEMENT: TRANSBOUNDARY NORMATIVITY WITHOUT INTERNATIONAL LAW?

Perhaps it is time to shift our focus away from thinking of management of the Great Lakes as an *inter-national* problem requiring an *inter-national* law solution—a binding contractual agreement between sovereign nation states. That way of thinking may be an obstacle to progress at this point. Instead, we might think of it as a transboundary problem, requiring a new form of effective transboundary governance, scaled to the resource we are trying to manage and protect. In previous work I have labeled this a “post-sovereign” approach⁸¹—a provocative term, to be sure. But by whatever label, the suggestion is that we need to look toward building a transboundary hybrid “new governance” arrangement tailored to the scope and nature of the resource, with the active participation of all the groups identified in the closing paragraphs of Part I of this article; not merely a sovereign-to-sovereign arrangement, but an ongoing institutional arrangement embracing subnational levels of government, as well as intergovernmental and a variety of nongovernmental actors—the relevant elements of civil society, if you will. These types of “new governance” arrangements are actually becoming quite common in Europe and here and there in the United States, and they have spawned a robust literature of their own.⁸²

81. See Bradley C. Karkkainen, *Post-Sovereign Environmental Governance*, GLOBAL ENVIL. POL., Feb. 2004, at 72.

82. See, e.g., LAW AND NEW GOVERNANCE IN THE EU AND THE US (Gráinne de Búrca & Joanne Scott eds., 2006); Michael C. Dorf & Charles F. Sabel, *A Constitution of Democratic Experimentalism*, 98 COLUM. L. REV. 267 (1998); David M. Trubek & Louise G. Trubek, *Hard and Soft Law in the Construction of Social Europe*:

Such a hybrid new governance arrangement might prove capable of making good on the promise of an ecosystem approach in the Great Lakes Basin—or anywhere, for that matter. All the elements for such an arrangement already exist in the Great Lakes region; it's just that, whether by inattention or by design, the parts have never been assembled into a working whole.

The suggestion is not that this sort of institutional arrangement is an easy thing to build; far from it. But many people have been lulled into passivity by what has turned out to be the false promise of the GLWQA that an ecosystem approach would be implemented by the national governments. And when the governments have failed to deliver on that promise (for understandable reasons, because they have never had the vision, the blueprint, or, most importantly, the incentives to make it actually happen), they have failed to hold each other accountable, and no one else has stepped forward to take their place. Why? Well, in part because key actors in the Great Lakes Basin continue to accept the notion that management of the Great Lakes is primarily a binational or international problem, something for the national sovereigns to work out.

There are alternative models. Increasingly, the Europeans appear willing to bracket the formalities of national sovereign prerogative in the interest of devising pragmatic solutions to thorny transboundary problems, including environmental and natural resource management problems. They are doing it in the context of managing the Baltic Sea, a large enclosed sea not unlike the Great Lakes in many respects (apart from the fact that the Baltic is saline). The management effort there got started a bit later than with the Great Lakes but has far surpassed efforts in the Great Lakes in the sophistication and functionality of its transboundary institutional arrangements and in the progress it has made towards achieving environmental improvement goals. The Europeans are also increasingly proceeding down this path in the context of transboundary integrated river basin management under the EU Water Framework Directive. A prime example is the Danube River basin, which traverses some eighteen nations from its source in Germany's Black Forest to its outlet at the Black Sea in Romania, but is now managed under a joint management regime.⁸³ In these

The Role of the Open Method of Co-ordination, 11 EUR. L.J. 343 (2005).

83. See Alistair S. Rieu-Clarke, *An Overview of Stakeholder Participation—What Current Practice and Future Challenges?*, 18 COLO. J. INT'L ENVTL. L. & POL'Y 611, 618–

and other places, real transboundary “new governance” institutions are being built, and they are achieving real results.

The Europeans have come to realize that these complex problems cannot be addressed simply by treaty—that is, by inter-sovereign contracts and mutually binding obligations at a nation-to-nation level. Treaties often continue to play a role in establishing the institutional framework; the Helsinki Convention on the Protection of the Baltic Sea⁸⁴ and the Danube River Protection Convention,⁸⁵ for example, establish far-reaching substantive goals and objectives, but they also create permanent regional institutions, recognizing that the real work and the hard management decisions need to take place closer to the ground, by people who are empowered to act on behalf of, and at the scale of, the resource being managed. There is a continued role for national sovereigns and international law, to be sure. But their role is no longer to claim exclusive authority; it is to authorize and empower new transboundary institutions, and to legitimize their actions with the mantle of legality.

The recently adopted Great Lakes Water Resource Compact and Sustainable Water Resources Agreement on water allocation hint at the institutional possibilities in the Great Lakes Basin. These instruments are aimed at the rather modest goal of limiting out-of-basin diversions of water from the Great Lakes Basin.⁸⁶ More specifically, the legally binding Compact among the eight Great Lakes Basin states, and its mirror-image companion document, the good-faith Agreement between the same eight states and two Canadian provinces, provide for:

- A ban on new out-of-basin diversions,⁸⁷ subject to narrowly

19 (2007) (describing requirements of the EU Water Framework Directive and stating that the states have designated the International Commission for the Protection of the Danube River as the “competent authority for overseeing the implementation of the Directive”).

84. Convention on the Protection of the Marine Environment of the Baltic Sea Area, *supra* note 64.

85. Convention on Cooperation for the Protection and Sustainable Use of the Danube River, June 29, 1994 (entered into force Oct. 22, 1998), *available at* <http://www.icpdr.org/main/icpdr/danube-river-protection-convention>.

86. See A. Dan Tarlock, *The International Joint Commission and Great Lakes Diversions: Indirectly Extending the Reach of the Boundary Waters Treaty*, 54 WAYNE L. REV. 1671, 1673 (2008) (stating that the Compact, which makes it difficult to divert water from the Great Lakes Basin, arose in reaction to “proposed or possible projects to divert the Lakes’ water to the more arid regions of the United States or undisclosed water-short countries”).

87. Compact, *supra* note 7, § 4.8; Agreement, *supra* note 8, art. 200(1).

limited exceptions for “straddling” communities that are partly within the basin and partly outside it and for certain intra-basin transfers (e.g., a diversion from the watershed of one Great Lake to the watershed of another Great Lake).⁸⁸

- Establishment of uniform regional standards for evaluating and permitting proposed water withdrawals and consumptive uses,⁸⁹ including requirements that return flows shall be to the source watershed,⁹⁰ no individual or cumulative adverse impacts on water quality or quantity shall be permitted,⁹¹ all withdrawals and consumptive uses must be implemented so as to incorporate environmentally sound and economically feasible water conservation measures,⁹² and each permitted withdrawal or consumptive use shall be “reasonable” as determined by reference to a multi-factor balancing test set out in the Compact and Agreement.⁹³
- Requirements that each state (and province) develop a comprehensive water resources inventory and contribute to a common database on water resources and withdrawals,⁹⁴ adopt a state or provincial water management conservation and efficiency plan and submit it for regional review,⁹⁵ establish a program to prohibit new diversions and regulate water withdrawals and consumptive uses in accordance with basin-wide standards set forth in the Compact and Agreement,⁹⁶ and report at five-year intervals on how the Compact and Agreement are being implemented in each respective jurisdiction.⁹⁷
- Establishment of a regional governing body called the Great Lakes Water Resources Council, consisting of the governors of each of the states (or their representatives),⁹⁸ and a parallel

88. Compact, *supra* note 7, § 4.9(1)–(2); Agreement, *supra* note 8, art. 201.

89. Compact, *supra* note 7, §§ 4.10–.11; Agreement, *supra* note 8, art. 203, 206.

90. Compact, *supra* note 7, § 4.11(1); Agreement, *supra* note 8, art. 203(1).

91. Compact, *supra* note 7, § 4.11(2); Agreement, *supra* note 8, art. 203(2).

92. Compact, *supra* note 7, § 4.11(3); Agreement, *supra* note 8, art. 203(3).

93. Compact, *supra* note 7, § 4.11(5); Agreement, *supra* note 8, art. 203(5).

94. Compact, *supra* note 7, § 4.1; Agreement, *supra* note 8, art. 301.

95. Compact, *supra* note 7, § 4.2(2); Agreement, *supra* note 8, art. 304.

96. Compact, *supra* note 7, §§ 4.3(1), 4.10; Agreement, *supra* note 8, art. 200, 206.

97. Compact, *supra* note 7, § 3.4(1); Agreement, *supra* note 8, art. 300.

98. See Compact, *supra* note 7, § 2.1 (establishing the Great Lakes-St. Lawrence River Basin Water Resources Council).

body called the Regional Body, consisting of the governors and the premiers of the two provinces.⁹⁹ The Council and Regional Body are to meet concurrently and are empowered to develop guidance and promulgate and enforce basin-wide regulations,¹⁰⁰ to develop and implement region-wide water management conservation and efficiency plans,¹⁰¹ to review the water management plans and implementation reports of the basin states and provinces,¹⁰² to make recommendations to the states and provinces regarding implementation of the Compact and Agreement,¹⁰³ and to exercise “regional review” permitting authority over proposed withdrawals or diversions deemed to be of region-wide significance or of precedent-setting character.¹⁰⁴

The Compact and Agreement apply not only to water within the Great Lakes and St. Lawrence River proper, but to all surface water and groundwater within the basin.¹⁰⁵ In a controversial compromise, the Compact and Agreement classify shipments of water out of the basin in containers of 5.7 gallons or less as not constituting “diversions.”¹⁰⁶ Also exempted is the longstanding diversion at Chicago, which is governed by the United States Supreme Court’s decree in *Wisconsin v. Illinois*.¹⁰⁷

Some critics within the Great Lakes Basin question whether the instruments will be effective in achieving their stated goal.¹⁰⁸

99. See Agreement, *supra* note 8, art. 400 (establishing the Great Lakes-St. Lawrence River Water Resources Regional Body).

100. See Compact, *supra* note 7, § 3.3 (empowering the Council to “promulgate and enforce such rules and regulations as may be necessary for the implementation and enforcement of this Compact”). In contrast, the Regional Body is only given authority to “[d]evelop guidance for the implementation of the Standard and the Exception Standard.” Agreement, *supra* note 8, art. 400(2)(i).

101. Compact, *supra* note 7, § 4.2(1); Agreement, *supra* note 8, art. 400(2)(f).

102. Compact, *supra* note 7, § 3.4(2); Agreement, *supra* note 8, art. 400(2)(c), (e).

103. Compact, *supra* note 7, § 3.4(3); Agreement, *supra* note 8, art. 400(2)(h).

104. Compact, *supra* note 7, §§ 4.5(1), 4.5(5); Agreement, *supra* note 8, art. 400(2)(a)–(b), 500, 505.

105. Compact, *supra* note 7, §§ 1.2, 4.2(1); Agreement, *supra* note 8, art. 103, 304(1)(c).

106. Compact, *supra* note 7, § 4.12(10); Agreement, *supra* note 8, art. 207(9).

107. Compact, *supra* note 7, § 4.14; Agreement, *supra* note 8, art. 207(10)–(14); see *Wisconsin v. Illinois*, 281 U.S. 696 (1930) (limiting diversion at the Chicago Drainage Canal to an average of 1500 cubic feet per second after December 31, 1938, and larger amounts during a transition period).

108. See Mark Squillace, *Rethinking the Great Lakes Compact*, 2006 MICH. ST. L. REV. 1347, 1358–60 (arguing that the Compact focuses exclusively on new or

Other critics question the goal itself, arguing that locking up twenty percent of the world's fresh surface water at a time of growing water shortages and an uncertain water future in the age of global climate change is a dubious undertaking.¹⁰⁹ Both critiques raise important questions about the Compact and Agreement that are beyond the scope of this article. Still others have suggested that the Compact and Agreement were put forth as a solution to a remote and speculative, or even non-existent, problem.¹¹⁰

The focus here is not on the effectiveness of the Compact and Agreement themselves, nor on the wisdom of what these instruments are trying to achieve, but rather on what the Compact and Agreement represent as a novel kind of transboundary governance mechanism. They provide a model in which the states and provinces did not wait for the national governments to act. Nor did the states and provinces assume that because questions of Great Lakes water allocation had a transboundary dimension, decisions about their management properly fell within the exclusive foreign affairs powers of their respective national governments. Instead, the states and provinces seized the initiative and crafted their own solution—a Compact among the eight states that became legally binding by virtue of Congressional approval, and a legally non-binding but morally compelling parallel good-faith Agreement between the eight U.S. states and two provinces, committing the two Canadian provinces to the exact same provisions to which the U.S. states are legally bound by the Compact and giving the provinces an equal seat at the table alongside the states in the regional governing body created by the instruments. The Compact and Agreement are then given further legal and practical effect by legislative ratification in each state and province, coupled with implementing legislation in each state and

increased withdrawals and diversions without addressing existing water uses in the basin, which are much larger and more significant); Amanda Peterka, *"Jury Is Out" on Implementation of Landmark Great Lakes Compact*, N.Y. TIMES, July 14, 2011, <http://www.nytimes.com/gwire/2011/07/14/14greenwire-jury-is-out-on-implementation-of-landmark-grea-33525.html> (describing environmentalist critiques of state implementation of the Compact).

109. See Squillace, *supra* note 108, at 1363–64 (questioning the ban on small-scale out-of-basin diversions that cause no perceptible harm to the Great Lakes but may force out-of-basin communities in smaller watersheds to place greater demands on already-stressed water resources).

110. See A. Dan Tarlock, *Four Challenges for International Water Law*, 23 TUL. ENVTL. L.J. 369, 391 (2010) (stating that the Compact was a response to "remote or trivially possible . . . transbasin diversion threats").

province to put the procedural and substantive commitments called for in the Compact and Agreement into effect. Through this ingenious device, the effect of the Compact and Agreement is to create an actual transboundary governance regime, complete with real transboundary decision-making institutions and backed by the force of law in each of the states and provinces with a stake in the resource, each harmonizing its domestic laws with the common transboundary regulatory scheme.

That all this could take place without a sovereign-to-sovereign international treaty specifically authorizing it might seem remarkable. And so it is, but it gives us a sense of the possibilities. These transboundary governance arrangements do not fit the familiar contours of international law and international lawmaking. Yet neither are they unlawful, nor completely extra-lawful. Indeed, on the U.S. side at least, they come now with the formal blessing of the federal government, in the form of congressional ratification of the Compact and acquiescence by silence with respect to the Agreement. It suggests there is space for more of this sort of thing.

A good thing, too, for when it comes to building effective transboundary governance institutions in the Great Lakes Basin, the initiative is not likely to come from Ottawa and Washington. The initiative is more likely to come from within the Basin, where the benefits of managing and protecting the Great Lakes are most keenly felt. Formal sovereign ratification in the form of a new international agreement, if needed, can come later.

III. THE LARGER SIGNIFICANCE OF THE GREAT LAKES COMPACT AND AGREEMENT IN THE GREAT LAKES BASIN AND BEYOND

The Compact and Agreement represent an interesting and novel model of transboundary governance of a natural system at a scale tailored to the system itself, initiated and maintained by subnational governments. Yet while the institutional arrangements are bold and innovative in design, the purpose for which they are established is exceedingly narrow in scope.

The Compact and Agreement also appear to operate wholly apart from the efforts of the national governments of the United States and Canada to manage the Great Lakes ecosystem through the Great Lakes Water Quality Agreement. As discussed in Part I, the latest iteration of the GLWQA, like its predecessors, is long on vision and ambition, but it suffers from a lack of appropriately scaled institutional infrastructure. While the GLWQA anticipates

state, local, and tribal participation in Great Lakes ecosystem management, the role specified for these subnational actors is confined to advising and consulting the national decision makers. The example of the Compact and Agreement suggests not only that it is possible to design transboundary institutions for decision making at regional ecosystem scales, but that subnational governments are capable of participating as true decision makers, not just advisers. The next logical stage in the evolution of Great Lakes ecosystem governance, then, is to design hybrid regionally scaled institutions that include both federal and state/provincial governments—as well as possibly others, such as local watershed management agencies, tribes, and First Nations—as co-decision makers, with the aim to integrate management of the entire suite of resources and stressors that comprise the Great Lakes. Such an arrangement would in effect merge the functions of the GLWQA and the Compact and Agreement, and fuse the regional institutional skeleton created by the Compact and Agreement with the binational relationship and programmatic vision of the GLWQA.

That sort of hybrid institutional mechanism is not likely to evolve organically out of either the present GLWQA or the Compact and Agreement. Indeed, it is difficult to see how the national governments, operating through the GLWQA, could negotiate the terms of any such new arrangement on behalf of their respective subnational governments; and by the same token, the states and provinces, working within the framework of the Compact and Agreement, lack authority to negotiate on behalf of their respective national governments. Yet over time the presence of effective regionally scaled governance institutions created by the Compact and Agreement could operate as both a model and as a spur to policymakers at both the national, regional, and state/provincial levels, inspiring them to explore governance possibilities beyond the traditional and familiar arrangements that to date have proven largely ineffective.

What broader lessons can be drawn from the Great Lakes Compact and Agreement, beyond their implications for the Great Lakes Basin itself? An obvious question is whether the governance model established by the Compact and Agreement is replicable outside the Great Lakes Basin. There certainly are other important natural systems that straddle national boundaries, but at first blush it would appear that the Compact and Agreement model can be

effective only where all the relevant nations are federal systems. It is not unusual for nations, especially large ones, to embrace some form of federalism, but neither is federalism a universal practice, and it is perhaps even rarer to find two federal systems operating side by side, like the United States and Canada. Yet arguably it would be a mistake to take the federalism requirement too seriously. Most political systems, federal and non-federal, vest some measure of decision-making autonomy in subnational governmental authorities. The key fact about the Great Lakes states and provinces is perhaps not that they are states and provinces in federal systems, but that they are subnational governments with interests in a shared transboundary resource and have substantial authority over it. Wherever those conditions obtain, some sort of transboundary governance mechanism at least loosely resembling the arrangements created by the Compact and Agreement is possible.

A final observation concerns the contrast between binding law, on the one hand, and the moral force of a good-faith agreement, on the other. Does it matter that the Compact among the eight U.S. states is legally binding, while the transboundary Agreement that brings in the two Canadian provinces is not? Certainly as a formal matter it makes some difference. Although all eight states have now ratified the Compact, all ten jurisdictions have embraced the Agreement, and all have incorporated the requirements of the Compact and Agreement into state or provincial legislation,¹¹¹ it is, in principle, easier for a party to withdraw from the Agreement than from the Compact. The Agreement itself specifies that any party may withdraw from the Agreement unilaterally upon written notice; in that case, the Agreement remains in force with respect to the remaining parties, unless terminated by written agreement of all remaining parties. In contrast, the Compact purports to bind all parties until the Compact is terminated by a majority vote of all parties¹¹² and provides for judicial review in the federal courts of

111. See *id.* at 391–92; see also GREAT LAKES-ST. LAWRENCE RIVER WATER RES. REG'L BODY & GREAT LAKES-ST. LAWRENCE RIVER BASIN WATER RES. COUNCIL, JOINT DECLARATION OF FINDING 4–5 (2010).

112. Compact, *supra* note 7, § 8.7. The default rule in the law of interstate compacts is that no party may renounce an interstate compact without the unanimous consent of all parties, absent a provision to the contrary in the compact itself. See Herbert H. Naujoks, *Compacts and Agreements Between States and Between States and a Foreign Power*, 36 MARQ. L. REV. 219, 227 (1952–53). Generally, termination of a compact also requires unanimous consent of all parties, but

actions taken under the Compact, stating that the court may provide equitable relief or (unspecified) “civil penalties.”¹¹³ Ultimately, however, it is probably not the threat of judicial enforcement but the good faith of the parties that will determine whether the Compact is effective; it is hard to imagine what judicial remedies would compel a recalcitrant state that no longer wanted to be part of the Compact to carry out its affirmative duties under that agreement effectively. If that is the case, then the “legally binding” character of the Compact may be something of a mirage. Nor is it likely that the Compact regime could withstand persistent and substantial non-compliance by one or more parties. To that extent, the success of the Compact, like that of the Agreement, is likely to turn more on the good faith of the parties than on the threat of legal enforcement.

IV. CONCLUSION

The Great Lakes-Saint Lawrence River Basin Water Resources Compact and Great Lakes-Saint Lawrence River Basin Sustainable Water Resources Agreement represent, on one level, a rather modest step toward the development of institutions for transboundary ecosystem governance in the Great Lakes Basin—modest because those instruments are narrowly crafted to achieve the limited objective of keeping water in the Basin. Their significance lies in the fact that they create a new kind of institutional architecture for management of Basin resources, creating cooperation and policy harmonization across all ten Basin states and provinces, and establishing transboundary regional institutions with real decision-making authority, operating at a Basin-wide scale. In so doing, they demonstrate both that it is

because the Great Lakes Water Resources Compact provides for termination by majority vote, that is the operative rule. The default rule in international treaty law provides somewhat more liberal opt-out terms: under Article 60 of the Vienna Convention on the Law of Treaties, a non-breaching party may unilaterally terminate or suspend its treaty obligations upon material breach by another party, and under Article 62 a party may terminate in the event of a “fundamental change of circumstances” if it “radically . . . transform[s] the extent of obligations still to be performed under the treaty.” *See* Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331.

113. Compact, *supra* note 7, § 7.3.2.a. Presumably, a suit by one or more states to compel another state’s compliance with the Compact would fall within the original jurisdiction of the Supreme Court of the United States. *See* U.S. CONST. art. III, § 2.

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possible to devise transboundary governance arrangements for management of a natural system and that it is possible to generate transboundary normativity without international law.