International Law's Lessons for the Law of the Lakes

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The eight Governors of the Great Lakes States signed a proposed new compact for the Great Lakes and St. Lawrence basin on December 13, 2005, and they joined with the Premiers of Ontario and Québec in a parallel agreement on the same topic on the same day. Neither document is legally binding—the proposed new compact because it has not yet been ratified by any State nor consented to by Congress; the parallel agreement because it is not intended to be legally binding. Both documents are designed to preclude the export of water from the Great Lakes-St. Lawrence basin apart from certain limited exceptions. The documents do little to promote rational resource management apart from limiting exports. There is debate over whether the two documents are adequate to achieve their announced goals and over whether the goals are the right ones. The lessons found in the well developed body of customary international law applicable to water resources, most recently summarized in the Berlin Rules on Water Resources, have largely been ignored. Comparison of the two documents with the Berlin Rules suggests that the documents will not provide satisfactory solutions to the challenges of managing the Great Lakes, even in the near future, given the broad ecological concerns that are not addressed in the two documents.

INTRODUCTION

The Great Lakes are inland seas connected by short, narrow channels, but they are not inexhaustible. Precipitation renews less than one percent of their waters annually; new water takes twelve to fifteen years to pass through the basin.¹ Deep storage circulates at widely varying rates in the five lakes, with the retention time for Lake Superior (the world's largest body of fresh water) at 191

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years, and for Lake Erie (smallest of the Great Lakes) at only 2.6 years.²

Canada is sovereign over forty-one percent of the basin, while the United States is the basin’s upper riparian.³ Disagreements between the two countries over the Great Lakes led the United States and the United Kingdom (on behalf of Canada) to enter into the Boundary Waters Treaty⁴ in 1909. The Boundary Waters Treaty, which is the beginning of what might be called the “law of the lakes,” created the International Joint Commission to regulate activities impacting “boundary waters” on the Canadian-U.S. border. The Great Lakes continue to be at the heart of the work of the Commission, so much so that some charge that the Commission today functions solely as a governing body for the Great Lakes.⁵ While a great deal of the Commission’s work does center on the Great Lakes-St. Lawrence basin, assertions that the Commission is a governing body for the basin exaggerate in two ways: The Commission also addresses matters other than the Great Lakes-St. Lawrence basin,⁶ and it is only one of several transboundary institutions that work on managing the Great Lakes-St. Lawrence basin.⁷


³ The term “riparian” derives from the Latin “riparius,” meaning “of or belonging to the bank of a river.” Riparius is derived from “ripa,” meaning “bank.” Little v. Kin, 644 N.W.2d 375, 377 n.2 (Mich. Ct. App. 2002). Today the term “riparian” is commonly used to refer to a lake or other water body as well as a river. Id. An “upper riparian” is a landowner or sovereign whose connection to a water body is higher up in the watershed of the body; generally speaking, an upper riparian’s activities easily impact lower riparians, while a lower riparian’s activities will only rarely impact upper riparians.


More importantly, numerous commentators have found that these overlapping bi-national and regional arrangements for managing the Great Lakes need considerable improvement. As a result, the Governors of eight of the States that share the basin signed an agreement in 2001 to draft a new compact for managing the basin's waters. This effort culminated in a compact signed by the Governors of the eight States on December 13, 2005 (the “Proposed Compact”—it has yet to be ratified by a single State or approved by Congress). The Proposed Compact has its critics, especially in Canada, but also in the United States. If it does enter into force, there will still be considerable room for improvement.

In this Article, I explore the legal instruments that have been developed in the effort to manage the Great Lakes as a whole.
Part I, I describe the treaties, compacts, statutes, and informal agreements that comprise the Great Lakes legal regime today. In Part II, I introduce the now highly developed system of customary international law that has emerged over the last century, summarizing the rules and principles applicable to water resources. Finally, in Part III, I suggest how the principles of customary international law could be drawn upon to improve the Great Lakes legal regime—the Law of the Lakes, if you will.

I. THE LAW OF THE LAKES TODAY

The Law of the Lakes presents an unusually complicated amalgam of international, interstate and interprovincial, national, and state law. The interested governments include not only the federal government and eight States, but also the Canadian government and the Province of Ontario. It has become customary also to include the Province of Québec because of the St. Lawrence River, although Québec is not riparian to the Lakes as such. In this Section, I describe briefly each of the legal elements that collectively form the Law of the Lakes today.

A. The Great Lakes Basin Compact

Efforts to create an interstate compact on the Great Lakes were completed in 1968 when Congress approved the Great Lakes Basin Compact—two decades after the States and the Provinces negotiated it. Pursuant to the Compact, the States of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin, joined to create the Great Lakes Commission. Each State receives three votes. Most decisions require a simple majority, but a majority of each delegation is required for the Commission to

14. Dellapenna, Regulated Riparianism, supra note 7, at § 9.06(c)(2); Dellapenna, Struggles, supra note 7, at 851.
15. On the inclusion of Québec and the exclusion of Vermont, see supra note 9.
17. Great Lakes Basin Compact, supra note 16, art. II. Although Ontario and Québec joined in the negotiation of the compact, Congress refused to include them when it consented to the compact.
18. Id. art. IV. Some states have three commissioners, each with one vote. Consistent with the terms of the compact, several states have opted for five commissioners, each with three-fifths of a vote.
19. Id. art. IV(C).
recommend a new program or project to the States. The Commission has an Executive Director who provides administrative support. The Compact requires the Commission to allocate its costs "equitably" among the participating States according to "their respective interests." In order to fulfill its responsibilities, the Commission established the Great Lakes Information Network, a website for sharing technical data, in 1998.

The core of the Commission's functions is the power to study and recommend various policies and programs. The Compact authorizes the Commission to recommend:

1. methods for the orderly, efficient, and balanced development, use and conservation of the water resources of the Basin or any portion thereof;
2. policies relating to water resources including the institution and alteration of flood plain and other zoning laws, ordinances and regulations;
3. uniform or other laws, ordinances, or regulations relating to the development, use and conservation of the Basin's water resources;
4. amendments or agreements supplementary to [the] compact;
5. mutual arrangements between the American and Canadian governments; and
6. all things necessary and proper to carry out the [Commission's] powers.

The Commission is strictly limited to making recommendations. The Compact expressly provides that "no action of the Commission shall have the force of law in, or be binding upon, any party

20. Id.
21. Id. art. IV(F)-(H).
22. Id. art. V(C).
24. Great Lakes Basin Compact, supra note 16, art. VI.
25. Id. art. VI(B).
26. Id. art. VI(F).
27. Id. art. VI(G).
28. Id. art. VI(H).
29. Id. art. VI(K).
30. Id. art. VI(N).
state.\textsuperscript{31} The States and Provinces merely promised to consider the Commission’s recommendations.\textsuperscript{32} Each State also has the right to withdraw from the Compact at any time through an act of the State’s or Province’s legislature giving six months notice of the intent to withdraw.\textsuperscript{33}

**B. Other Regional Initiatives**

Because the Great Lakes Commission has such limited powers, the Governors of the Great Lakes States and the Premiers of Ontario and Québec entered into an informal agreement in 1985 called the Great Lakes Charter.\textsuperscript{34} The Charter operates as the policy setting arm of the governors and premiers, while the Compact’s Commission provides technical studies and recommendations to implement those policies. While policy setting under the Charter is primary, legally the Charter must be subsidiary to the Compact because the Charter has never been approved by Congress. This lack of congressional approval makes the Charter’s legality as a free standing instrument highly doubtful: It probably is not a “minor arrangement” among the States that can be accomplished without Congress’s approval;\textsuperscript{35} and it is an international agreement that States cannot make without congressional assent.\textsuperscript{36} The Charter, like the Compact, also lacks an effective enforcement mechanism,

\begin{itemize}
  \item \textsuperscript{31} Id.
  \item \textsuperscript{32} Id. art. VII.
  \item \textsuperscript{33} Id. art. VIII.
\end{itemize}
particularly because the lack of congressional assent necessarily means that the Charter is not binding or enforceable.\textsuperscript{37} In fact, persistent underfunding of the Charter's reporting and consultation requirements have prevented it from fulfilling its goals.\textsuperscript{38}

The governors also established the Great Lakes Protection Fund in 1989.\textsuperscript{39} Incorporated in Illinois, the Fund administers donations by the States, making grants for environmental protection and ecological health. Rather than imposing decisions on the participating States, the Fund seeks to influence them by providing benefits to them. Why a State would channel some pollution control money through the Fund rather than administer it directly remains unclear. This perhaps explains why the seven participating States have pledged only $81,000,000 to endow the Fund, only about half of which was awarded as grants by 2002.\textsuperscript{40}

The Great Lakes Basin Compact, the Great Lakes Charter, and the Great Lakes Protection Fund bring together interested professionals across political boundaries to begin the process of integrating water management basin wide.\textsuperscript{41} Yet even taken together, while these arrangements allow the State and Provincial governments to talk a good game, they have no teeth.\textsuperscript{42} In an attempt to strengthen the Great Lakes legal regime, the Governors of the Great Lakes States and the Premiers of the two Canadian Provinces committed themselves in June 2001 to Annex 2001—an agreement to negotiate a new compact with real decision making authority by June 2004. We will return to the results of that process in Part III.\textsuperscript{43} Next, I turn to the institutions for cooperative action created by the national governments.

\begin{footnotes}
\item[37.] Hall, supra note 11, at 426.
\item[38.] Id. at 425–26.
\item[39.] Earl, supra note 34, at 277–78; Siros, supra note 34, at 301–03.
\item[40.] Great Lakes Protection Fund, 2002 Annual Report, preface (2002), http://www.glpf.org/about/02annual.pdf. For earlier Fund data, see Earl, supra note 34, at 277–78; Siros, supra note 34, at 302.
\item[43.] Annex 2001, supra note 10; see also 36-37; Hall, supra note 11, at 432–35; Hinkle, supra note 1, at 306–10; Olson, supra note 10, at 35.
\item[44.] See discussion infra Part III.B.
\end{footnotes}
C. The International Joint Commission

In the Boundary Waters Treaty of 1909, Canada and the United States prohibited alterations of boundary waters without the authority of the nation in which the necessary works transpire and of the International Joint Commission, which the treaty created, if the alteration would have a measurable impact on the waters. Courts have uniformly rebuffed private litigants' attempts to invoke the Boundary Waters Treaty in order to challenge regulatory decisions in the United States, leaving enforcement in the hands of the Commission. The Commission consists of three members appointed by each country, with decisions being made by a majority vote of the commissioners attending so long as a quorum of four exists. The Commissioners have rarely divided evenly along national lines.

The International Joint Commission has accomplished more than the several regional institutions, but it is subject to many of the same criticisms as those regional institutions. In fact, the

46. Boundary Waters Treaty, supra note 4, art. III.
48. Boundary Waters Treaty, supra note 4, arts. VII-XII; see also Dellapenna, supra note 4, at § 50.02(c).
49. See, e.g., DeWitt, supra note 5, at 308-11 (describing the decisions made by the Commission regarding pollution, none of which involved division along national lines); see also id. at 313-14 (noting the Commission's history of objectivity and independence).
Treaty's apparent creation of an institution to regulate the shared waters (the "boundary waters") of the two nations is somewhat deceiving. "Boundary waters" are narrowly defined to include only waterbodies (or their connecting waters) that form or cross the international boundary. Except for Lake Michigan, the Treaty expressly declares that each nation has absolute sovereignty over the waters within its borders before they flow across the international border. The only limitation on the upper riparian's use of "nonboundary waters" is that persons injured across the border by activities involving such waters must have the same legal remedies "as if such injury took place in the country where such diversion or interference occurs."

The Treaty goes on to exempt from regulation "ordinary" uses of water for domestic or sanitary purposes and governmental projects which do not "materially" affect the level of flow of the boundary waters, although the Treaty also flatly prohibits the pollution of boundary waters to the injury of health or property in the other nation.

The United States is the upper riparian in the Great Lakes basin, and thus seems doubly advantaged by the provisions of the Treaty. First, the United States can undertake, or authorize, virtually any project it chooses on "nonboundary waters" above the international border, Canada having foresworn a right to object. Second, Canada cannot undertake, or authorize, a project below

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52. Boundary Waters Treaty, supra note 4, at pmbl; see Dellapenna, supra note 4, § 50.02(b).
53. Boundary Waters Treaty, supra note 4, at arts. II, XIV; see also Sanitary Dist. of Chi. v. United States, 266 U.S. 405, 426 (1924); Graham, supra note 6, at 8. Some commentators have concluded that the Boundary Waters Treaty does not apply to Lake Michigan, except to the limited extent expressly provided in the Treaty. See DeWitt, supra note 5, at 306–07; Hall, supra note 11, at 417. Questions about the relation of the Treaty to Lake Michigan could be resolved by considering Lake Huron and Lake Michigan to be a single body of water—which, hydrologically speaking, they are, as the briefest glance at a map would show.
54. Boundary Waters Treaty, supra note 4, arts. II, IV.
55. Id. art. II. In today's world, such problems are perhaps better addressed through the exercise of long-arm jurisdiction, an approach not available when the Boundary Waters Treaty was negotiated. See, e.g., Pakootas v. Teck Cominco Metals, Ltd., 452 F.3d 1066, 1075-77 (9th Cir. 2006); Richard Du Bey et al., CERCLA and Transboundary Contamination in the Columbia River, 21 NAT. RESOURCES & ENV'T. no. 1, 8 (2006); George, supra note 51; Noah Hall, Bilateral Breakdown: U.S.-Canada Pollution Disputes, 21 NAT. RESOURCES & ENV'T. no. 1, at 18 (2006).
56. Boundary Waters Treaty, supra note 4, art. III.
57. Id. art. IV; see Dellapenna, supra note 4, § 50.06(b); George, supra note 51.
58. Canada only has the right to object if diversions above the boundary would affect the level of the boundary waters themselves, something that is difficult to do for the Great Lakes given their large volume of water. The now reduced, but once massive, Chicago diversions lowered the levels of the Lakes by about six inches. See Wisconsin v. Illinois, 278 U.S. 967, 407 (1929). Canada has never raised the cumulative effect of many small diversions as an issue under the Treaty. See generally Hall, supra note 11, at 417, 419–22.
the border on boundary waters or waters flowing from boundary
waters if it would adversely affect uses above the border. Canada
thus seems at a severe disadvantage despite its sovereignty over
forty-one percent of the Great Lakes basin.\textsuperscript{59} Canada is compen-
sated for these disadvantages in the Great Lakes by being the
upper riparian in other basins, particularly the Columbia River.\textsuperscript{60}

The Boundary Waters Treaty could allow the International Joint
Commission to regulate some consumptive uses of the boundary
waters. Yet because the initiation of proceedings before the Com-
mission is in the hands of the two governments,\textsuperscript{61} and with the
Commission’s authority limited to alterations of boundary waters
that materially change the level of flow of the waters,\textsuperscript{62} the Treaty
has rarely come into play at the level of single users. Between 1909
and 1976, the Commission altogether (along the entire border, not
just for the Great Lakes basin) considered fifty-nine “applications”
(binding proceedings initiated with the consent of both govern-
ments)\textsuperscript{63} and forty-one “references” (non-binding proceedings).\textsuperscript{64}
These are remarkably small numbers given the enormous devel-
opment in water use and abuse during that period. Three
applications related to water diversions, fifteen related to changes
in water levels and flows, and thirty-six related to
\textsuperscript{dams}.\textsuperscript{65} Sixteen of
the references related to water levels and flows and ten related to
water pollution.\textsuperscript{66} The non-water proceedings, including both ap-
lications and references, ranged from air pollution to general

\textsuperscript{59.} See Leonard B. Dworsky et al., \textit{Management of the International Great Lakes}, 14 \textit{Nat.
Resources J.} 103, 105 (1974). See also DeWitt, supra note 5, at 307; Graham, supra note 6, at
17–18; Hall, supra note 11, at 417.

\textsuperscript{60.} See, e.g., \textit{John V. Krutilla, The Columbia River Treaty: The Economics of an
International River Basin Development} (1967); \textit{Keith W. Muckleston, International
Management in the Columbia River System} 2–8 (UNESCO, 2003),
http://unesdoc.unesco.org/images/0013/001332/133292e.pdf; \textit{Michael C. Blumm, The
Columbia Basin, in 6 Waters and Water Rights} 63 (Robert E. Beck ed., repl. vol. 2005);
Dellapenna, supra note 4, §§ 50.05–50.05(h).

\textsuperscript{61.} Boundary Waters Treaty, supra note 4, art. X (binding decisions only after consent
to the referral by both governments, with consent by the United States requiring approval by
the U.S. Senate).

\textsuperscript{62.} \textit{Id.} art. III.

\textsuperscript{63.} \textit{Id.} art. X. Such “applications” require the “advice and consent” of the U.S. Senate,
although the Treaty does not address whether a two-thirds majority is required for such
consent. Two authors have asserted that there never has been a “binding reference.” See
DeWitt, supra note 5, at 308–14; Hall, supra note 11, at 418. Apparently these authors mean
that because the Commission has been making binding decisions regarding boundary wa-
ters, such a reference has never gone from the Commission to a single arbiter.

\textsuperscript{64.} For the number of applications and references between 1909 and 1976, see Gra-
ham, supra note 6, at 13–14.

\textsuperscript{65.} \textit{Id.}

\textsuperscript{66.} \textit{Id.}
International Law's Lessons

river basin development to socio-economic problems. The congressional decision in 1986 to confer authority on the Commission to veto diversions from the Great Lakes basin has not played a significant role in the Commission's work, if only because governors of Michigan have vetoed all such diversions.

The International Joint Commission has taken significant steps to regulate pollution of the Great Lakes, most notably through a further agreement between Canada and the United States known as the Great Lakes Water Quality Agreement. This agreement has been somewhat effective in improving water quality despite its essentially consultative and advisory nature. The Commission, however, has been less successful in dealing with pollution than in dealing with the more strictly engineering aspects of its charge. Improvements in water quality in recent decades are primarily attributable to loosely coordinated steps by the several States and Provinces or the two federal governments taken independently of the Commission. Coordination remains loose at least in part because the States and Provinces are unable to enter into a binding agreement among themselves without the full participation of the

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67. Id.
two federal governments. As a result, some observers have begun to call for a renegotiation of the Treaty.

**D. Congressional Intervention**

In the Water Resources Development Act of 1986, Congress prohibited any new diversions of water out of the Great Lakes basin without the consent of the governors of every basin State and of the International Joint Commission. This is not an interstate compact, for it does not depend on the States agreeing to the terms of the statute, and no State is able to withdraw from the arrangement regardless of how onerous it might prove to be. The Act does not create a private right of action. Private litigation, however, is seldom necessary to prevent diversions out of the Great Lakes.

The Michigan Governor’s veto of just such a diversion for the town of Lowell, Indiana, in 1992 illustrates the problem created by the Water Resources Development Act of 1986. The divide between the Great Lakes basin and the Mississippi Valley is as little as a mile from Lake Michigan in Indiana and Illinois (and only a few miles further in other Great Lakes States). Because of the statute,

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73. See sources cited supra note 36.
76. Little Traverse Bay Bands of Odawa Indians v. Great Spring Waters of Am., Inc., 203 F. Supp. 2d 853 (W.D. Mich. 2002); see Dellapenna, Regulated Riparianism, supra note 7, § 9.06(b)(2) nn. 1236.1-1236.4 (Supp. 2005); Glass, supra note 8; Hall, supra note 11, at 429.
78. See Social Science Research Section, Inland Waters Directorate, Department of the Environment (Canada), Great Lakes Basin Drainage and Political
Indiana cannot provide water from Lake Michigan or a stream draining into Lake Michigan to large or small communities in the northern parts of the State if the community is across that divide—as is Lowell, although only ten miles from the lakeshore—without the consent of the governors of every of other State in the basin.\footnote{79} The Governor of Michigan did not veto a proposed diversion by the City of Akron, Ohio in 1998, but only after the city committed itself to return—at considerable expense—an equal amount of water to the source stream.\footnote{80} The statute protects other basin States if a State were to authorize large-scale diversions of Great Lake waters for uses far removed from the watershed (say to recharge the Ogallala Aquifer underlying the Great Plains, the fear that prompted enactment of the statute),\footnote{81} but it also prevents States from taking small steps to manage their own needs without serious or impossible negotiations with all the other basin States.

It is no accident that the Governors of Michigan take the hardest line. Michigan, alone of the Great Lakes States and Provinces, is located almost entirely within the Great Lakes basin.\footnote{82} Diversions of water in Michigan are subject to regulation only by Michigan

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\footnote{79}{See 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, 468-69 (1993); Daniel A. Injerd, Managing Great Lakes Water Diversions: A Diversion Manager's Viewpoint, 1 BUFF. ENVTL. L.J. 299 (1993). Communities in other Great Lakes States, such as Wisconsin, have faced similar issues. Dan Egan, Who Should Be Able to Tap Great Lakes? New Berlin Request is New, But Precedent is Not, MILWAUKEE J. SENTINEL (Wis.), July 17, 2006, at 1; Dan Egan & Darryl Enriquez, Michigan Shuts Tap to Lake: New Berlin Blocked in Request to Divert Water, MILWAUKEE J. SENTINEL, July 1, 2006, at 1.}

\footnote{80}{See A REPORT ON THE PROPOSED EXPANSION OF THE CITY OF AKRON WATER SYSTEM (July 1996).}


\footnote{82}{A tiny corner in the southwest of Michigan is located in the Mississippi-Ohio watershed. Moreover, only Michigan, of all the Great Lakes' States, has its capital within the basin. See Hall, supra note 11, at 430 n.142.}
because no diversion within Michigan will be out of the basin. Proposed diversions in other States that would remove water from the basin (even if the water remains in the State of the diversion) require consent by the Governor of Michigan. This non-reciprocal relationship makes it easy for Michigan’s Governor to withhold consent for no Governor in another State can hold up a Michigan project—a consent that might otherwise be traded for Michigan’s consent.83

Without the Water Resources Development Act of 1986, a State that discriminates against interstate commerce in managing its waters would violate the “dormant commerce clause” of the Federal Constitution.84 Michigan’s refusal to approve interbasin diversions in other States, however, does not violate that clause because Michigan’s actions are pursuant to express congressional authorization.85 Perhaps Congress has given too much discretion to the Governors of the Great Lakes States.86 Without the powers conferred by the Water Resources Development Act of 1986, States could do little to impede a massive diversion of water out of the Great Lakes by another State.87

Congress amended the Water Resources Development Act of 1986 in 2001.88 The revisions finally recognized the need to “consult with” the Provinces of Ontario and Québec.89 It also added the word “export” to the list of prohibited diversions of water out of the basin without the consent of the Governors of each Great Lakes State.90 While adding the word “export” might not have been necessary, the change did preclude an argument that the export of

83. Dinsmore, supra note 79, at 468.
85. See Abrams, supra note 81, at 620–21.
90. Id. §§ 1962(d)-20(b)(3), (d).
water in containers (whether in bottles, tanker trucks, or sea-going tankers—as opposed to through pipelines, ditches, or other diversion works) was not included within the requirement of gubernatorial approval. The amendments also reiterated the prohibition of all federal agencies from studying (or paying for a study of) the diversion of water out of the basin unless the study is approved by the Great Lakes Governors.91 Congress further required a comprehensive study of the Great Lakes region to assure proper management and protection of the Lakes and related resources92 and to develop a plan for the restoration and management of the Great Lakes fisheries.93 And Congress adopted a non-binding “sense of the Congress” resolution requesting the Secretary of State to work with Canada to support the development of the new basin wide management mechanism.94 While this supports the Annex 2001 process,95 it is not anticipatory consent to the resulting draft interstate compact96 and it does nothing to change the management regime for the Lakes.

Congress amended the Clean Water Act in 1990 to require the Environmental Protection Agency to comply with the standards created under the Great Lakes Water Quality Agreement when the Agency establishes water quality standards for the Lakes.97 The United States thus undertook to transform what were essentially advisory standards into legal mandates, although this was not required by the Agreement itself, but did so by unilateral act rather than by acting cooperatively with Canada or the States.98

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91.  Id. §§ 1962(d)-20(b)(4), (e).
92.  Id. § 1962(d)-21.
93.  Id. § 1962(d)-22.
95.  See infra Part III.B.
II. THE TEACHINGS OF CUSTOMARY INTERNATIONAL LAW

In 1966, the International Law Association approved the *Helsinki Rules on the Uses of International Rivers* which quickly became the authoritative summary of the customary international law on transboundary (internationally shared) waters. The UN General Assembly declined to endorse the *Helsinki Rules*, instead requesting the International Law Commission to prepare a set of draft articles on the “non-navigational uses of international watercourses modeled on the *Helsinki Rules*.” The Commission completed its work on the project in 1994, producing the *Draft Articles on the Law of Non-Navigational Uses of International Watercourse*. The Sixth (Legal) Committee of the General Assembly reworked the *Draft Articles* into the United Nations Convention on the Law of Non-Navigational Uses of International Watercourse, which the General Assembly approved by a vote of 103–3 on May 21, 1997. While ratifications of the UN Convention have proceeded slowly and it has not yet entered into force, it was almost immediately recognized as the authoritative summary of the customary international law governing its issues. Finally, on August 21, 2004, the International Law Association, meeting in Berlin, approved the *Berlin Rules*.

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on Water Resources as yet another authoritative summary of the customary international law applicable to waters—but this time to all waters and not just to transboundary or international waters. I served as Rapporteur for the Berlin Rules. In the following subsections, I address the lessons to be learned from the study of the customary international law of water resources, focusing particularly on how those lessons are expressed in the Berlin Rules.

A. Sharing Waters: The UN Convention

Given the importance and growing scarcity of water resources in the world today, few areas of international law are of greater importance than those relating to water resources. After all, water problems are magnified by the reality that water is an ambient resource that largely ignores human boundaries. Nearly all of the 264 largest rivers in the world are shared by more than one nation in water basins that are home to at least forty percent of the world's population. The most cooperative of neighboring States have found it difficult to achieve mutually acceptable arrangements for governing transboundary surface waters, even in relatively humid regions where fresh water is usually sufficient to satisfy most or all needs. In arid regions, such conflicts become endemic and intense despite otherwise friendly relations or even membership in a federal union. No wonder the English derived the word "rival"
from the Latin word "rivalis," meaning persons who live on opposite banks of a river.\textsuperscript{111} The problems of transboundary aquifers have hardly begun to be faced.\textsuperscript{112} As a result, many observers have concluded that there is considerable risk of war over water among neighboring nations or communities.\textsuperscript{113}

The ambient nature of water creates a need for cooperation among groups contending over its allocation, and considerable evidence suggests that cooperative solutions to water scarcity problems are more likely than prolonged conflict.\textsuperscript{114} India and Pakistan are an excellent example. They have engaged in three full-scale, albeit limited, wars since 1948, and numerous other skirmishes and attacks—all for reasons largely unrelated to their shared water resources.\textsuperscript{115} They have even developed nuclear weapons specifically to threaten each other.\textsuperscript{116} During this same time, however, the two States negotiated and implemented a complex treaty on sharing the waters of the Indus River basin; they carried through with their cooperative water management arrangements even during actual periods of full-scale hostilities.\textsuperscript{117}

The problem is how to structure international cooperation so that it increases trust and eliminates water as a possible reason for war while simultaneously assuring efficient and ecologically sus-


\textsuperscript{117} Indus Waters Treaty, India-Pak., Sept. 19, 1960, 419 U.N.T.S. 126; see also Accariez, \textit{supra} note 110.
taneous water management and use. International law (particularly customary international law) by itself cannot solve this problem, but international law is an essential element of any solution. Elsewhere, I have written at some length about the evolution of the customary international law applicable to water resources. Here I will provide only a brief summary of that body of law as it exists today.

The principle of equitable utilization has long been the primary rule of customary international law for water resources. The principle recognizes the right of all riparian States to use water from a common source so long as their uses do not interfere unreasonably with uses in another riparian State. The Reichsgerichtshof (Germany's highest court) expressed the point:

The exercise of sovereign rights by every State in regard to international rivers traversing its territory is limited by the duty not to injure the interests of other members of the international community. Due consideration must be given to one another by the States through whose territories there flows an international river. No State may substantially impair the natural use of the flow of such a river by its neighbours.

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118. Dellapenna, supra note 114, at 89-91.
120. McCaffrey, supra note 100, at 157-49; Dellapenna, International Law, supra note 119, §§ 49.05-.05(c); Sheng Yu, International Rivers and Lakes, in Achievements and Prospects, supra note 101, at 989, 991.
121. See generally McCaffrey, supra note 100, at 63, 76-111; Dellapenna, International Law, supra note 119, §§ 49.05-.05(a)(2); Yu, supra note 120, at 993-96.
This principle has been included in each of the recent codifications of the customary international law applicable to water resources.\textsuperscript{123}

These codifications also set forth a second principle, generally referred to as the "no-harm" rule.\textsuperscript{124} In fact, the debates over the drafting and approval of the UN Convention centered on the relationship between the rule of equitable utilization and the no-harm rule.\textsuperscript{125} The two rules, as approved by the General Assembly, are found in Articles 5 and 7 of the UN Convention:

\textbf{Article 5
Equitable and reasonable utilization and participation

1. Watercourse States shall in their respective territories utilize an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilization thereof and benefits therefrom, taking into account the interests of the watercourse States concerned, consistent with adequate protection of the watercourse.

2. Watercourse States shall participate in the use, development and protection of an international watercourse in an equitable and reasonable manner. Such participation includes both the right to utilize the watercourse and the duty to cooperate in the protection and development thereof, as provided in the present Convention.\textsuperscript{126}

\textbf{Article 7
Obligation not to cause significant harm

1. Watercourse States shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse States.

2. Where significant harm nevertheless is caused to another watercourse State, the States whose use

\textsuperscript{123} Berlin Rules, supra note 106, art. 13; Helsinki Rules, supra note 99, art. V; U.N. Convention, supra note 104, art. 5(1).

\textsuperscript{124} Berlin Rules, supra note 106, art. 16; Helsinki Rules, supra note 99, art. V(2)(k); U.N. Convention, supra note 104, art. 7.

\textsuperscript{125} Dellapenna, International Law, supra note 119, § 49.05(a)(2).

\textsuperscript{126} U.N. Convention, supra note 104, art. 5.
causes such harm shall, in the absence of agreement to such use, take all appropriate measures, having due regard for the provisions of articles 5 and 6, in consultation with the affected State, to eliminate or mitigate such harm and, where appropriate, to discuss the question of compensation.\footnote{127}{Id. art. 7.}

While there is room for debate, paragraph 2 of Article 7 appears to subordinate the Article to the principle of equitable utilization in Article 5. Because each State's actions, if undertaken without regard for the interests of the other State, would inflict harm on the other, one could hardly reach any other conclusion.\footnote{128}{See, e.g., Joseph W. Dellapenna, The Two Rivers and the Land between: Mesopotamia and the International Law of Transboundary Waters, 10 BYU J. PUB. L. 213, 249-50 (1996). See generally Joseph W. Dellapenna, Rivers as Legal Structures: The Examples of the Jordan and the Nile, 36 NAT. RESOURCES J. 217 (1996); Albert E. Upton, Which Rule Should Prevail in International Water Disputes: That of Reasonableness or that of No Harm?, 36 NAT. RESOURCES J. 635 (1996).}

Overall, the UN Convention contains thirty-seven articles dealing with the obligations of riparian States to share the common resource, to consult with each other, to protect the environment, and to resolve disputes. The articles on international consultations, environmental protection, and the resolution of disputes go well beyond the comparable provisions of the Helsinki Rules.\footnote{129}{Compare U.N. Convention, supra note 104, arts. 8, 9, 11-28, 29-33, with Helsinki Rules, supra note 99, arts. IX-XI, XXVI-XXXVIII. See generally McCaffrey, supra note 100, at 381-413.}

The drafters of the UN Convention generally were cautious in their approach to their work, limiting it to transboundary water issues and even refusing to include groundwater within the scope of the Convention unless the groundwater was directly connected to a surface international watercourse.\footnote{130}{See ILC REPORT, supra note 103, at 326.} The drafters' intent thus appears to have been to codify the traditional customary international law, rather than to "progressively develop" it or to incorporate related, but arguably distinct, bodies of customary international law of more recent vintage. The point is important because ratifications have proceeded slowly, raising doubt whether or when the UN Convention as such will enter into effect. Yet just because the Convention is not being ratified does not mean that it has had no effect. In the same year the General Assembly approved the Convention, the International Court of Justice referred to it as expressing the customary international law of transboundary waters—specifically referring to the new rules on environmental
protection as well as the rule of equitable utilization. Whether the new mandates regarding international consultations and dispute resolution similarly reflect customary international law remains unclear.

B. Beyond Sharing: Customary International Law and National Waters

In part because the UN Convention was such a cautious document, the Water Resources Law Committee of the International Law Association, at a meeting in Edinburgh in January 1996, voted to compile and review the entire body of its and its predecessor committees' work from the Helsinki Rules of 1966 through various supplementary rules approved by the Association through 1996. The Committee and the Association confirmed this decision at the biennial conference of the Association in August 1996 and again in London in 2000. I served as Rapporteur of this effort, which concluded in Berlin in 2004 with the International Law Association's approval of the Berlin Rules on Water Resources.

The Berlin Rules set forth a coherent, cogent, and comprehensive summary of the relevant customary international law, incorporating the experience of the nearly four decades since the Helsinki Rules were adopted, taking into account the development of important bodies of complementary customary international law (including international environmental law, international human rights law, and the humanitarian law relating to the war and armed conflict), as well as the General Assembly's adoption of the UN Convention. While there was some disagreement within the Committee over whether to undertake the project, the deci-

132. See Int'l L. Ass'n, supra note 106, at 484.
133. Berlin Rules, supra note 106.
134. See Dellapenna, International Law, supra note 119, § 49.07.
135. Id. § 49.08.
sions of the Association, including the final approval of the Berlin Rules, were by unanimous votes.\footnote{137. See Int’l L. Ass’n, supra note 106, at 15–16, 940.}


the surrounding environment that relates to waters (the "aquatic environment") and the obligation to integrate the management of waters with the surrounding environment. The major changes in the Berlin Rules relate to the rules of customary international law applicable to all waters, national as well as international, although there are certain refinements in the rules relating strictly to international waters. By including all of these matters within a single set of rules, a lawyer, a jurist, a water manager, a water policy maker, or anyone else concerned about the rules of customary international pertaining to water, will, for the first time, find all of the relevant law in one place, with attention to the interrelationships of the rules as well as to their clear statement.

C. The Content of the Berlin Rules

After an initial chapter setting forth the scope of the Rules and key definitions, Chapter II of the Berlin Rules summarizes the general principles applicable to all waters: the right of public participation, the obligation to use best efforts to achieve both


139. Berlin Rules, supra note 106, arts. 3(1), (6), 6, 22-29, 56(1), 57(3), 58(1), 62, 66(a), 68-71.


For "soft law" instruments that recognize such obligations, see Agenda 21, supra note 138, ch. 23, pmbl.; Dublin Statement, supra note 138, princ. 2; Bonn Declaration, supra note 138, recs. 1, 6, 11; Johannesburg Declaration, supra note 138, princs. 4, 26, 138, 141, 164; Rio Declaration, supra note 138, princ. 10.

On whether these and many other international instruments create binding rules of customary international law, see Kiss & Shelton, supra note 138, at 678-81; Carl Bruch, Charting New Waters: Public Involvement in the Management of International Watercourses, 31
the conjunctive and the integrated management of waters, and duties to achieve sustainability and the minimization of environmental harm. Chapter III summarizes the basic principles

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141. "Conjunctive management" means the management of the different phases of the hydrological cycle (surface waters, groundwater, etc.) as a whole; "integrated management" means the management of water resources combined with the management of other aspects of the environment. See Berlin Rules, supra note 106, arts. 5, 6, 37. For international agreements expressing such obligations, see Agenda 21, supra note 138, ch. 18; ASEAN Agreement, supra note 138, arts. 2, 8; Bonn Declaration, supra note 138, recs. 4–6, 9; EU Water Framework Directive, supra note 138, arts. 3, 5; Carpathians Convention, supra note 138, arts. 2(e), 6; Revised African Convention, supra note 140, art. VII(2)(b).

142. Berlin Rules, supra note 106, arts. 7, 8, 40. These duties were recognized in an International Court of Justice decision. Gabčíkovo-Nagymaros Project (Hung. v. Slovk.), 1997 I.C.J. 92, ¶ 53, 140 (Sept. 25). For international agreements recognizing such duties, see
applicable solely to international waters, including the right of basin States to participate in the management of shared water, the duty of basin States to cooperate, the principle of equitable utili-


143. Berlin Rules, supra note 106, art. 10; U.N. Convention, supra note 104, art. 4. For an example of the express recognition of the “participation principle,” see Incomati Agreement, supra note 138, art. 3(b). See also Dellapenna, International Law, supra note 119, § 49.05(c); Schwebel, supra note 111, at 85.

144. Berlin Rules, supra note 106, art. 11. For international agreements recognizing a duty to cooperate over water, see ASEAN Agreement, supra note 138, arts. 18, 19; Carpathians Convention, supra note 138, art. 2(2)(d); Danube Convention, supra note 142, art. 2(2); Helsinki Convention, supra note 140, arts. 2(6), 9; Luso-Spanish Convention, supra note 138, arts. 2(1), (2), 4(1); Mekong Agreement, supra note 138, arts. 1, 4; Ramsar Convention, supra note 138, arts. 3, 4, 12; Revised African Convention, supra note 140, art. XXII(1)(a), (b), (d), (2)(c); SADC Protocol, supra note 142, art. 2(2), (6), (7).
zation, and the obligation to avoid transboundary harm. The remaining chapters develop these basic principles in significant detail. The refinements in the rules applicable solely to international waters (principally found in Chapters III, IX, and XI) mostly emphasize the importance of the obligations regarding environmental protection and public participation by applying those obligations even to international waters. The International Law Association once again revisited the recurring debate about the relation of the rule of equitable utilization and the rule requiring the avoidance of significant harm (the “no-harm” rule), with a new formulation of that relationship that will no doubt attract yet more discussion of the question. Other chapters, relating to armed conflict (Chapter X), cooperative administration (Chapter XI), State responsibility (Chapter XII), private legal remedies (Chapter XIII), and the settlement of international disputes (Chapter XIV), also contain refinements without making a substantial departure from the Helsinki Rules and the UN Convention.

For “soft law” instruments that recognize such obligations, see Bonn Declaration, supra note 138, rec. 4; Johannesburg Declaration, supra note 138, ¶ 29; Rio Declaration, supra note 138, princs. 5, 27; U.N. Convention, supra note 104, arts. 8, 24.


145. Berlin Rules, supra note 106, arts. 12–15; U.N. Convention, supra note 104, arts. 5, 6. For international agreements recognizing the principle of equitable utilization, see Helsinki Convention, supra note 140, art. 2(2)(c); Danube Convention, supra note 142, art. 2(1); Incomati Agreement, supra note 138, art. 3(b); Mekong Agreement, supra note 138, art. 5; Revised African Convention, supra note 140, art. VII(3); SADC Protocol, supra note 142, art. 3(7), (8).

For “soft law” instruments that recognize such obligations, see Bonn Declaration, supra note 138, rec. 4; Helsinki Rules, supra note 99, arts. IV–VIII. See generally Dellapenna, International Law, supra note 119, § 49.05–05(b)(3).

146. Berlin Rules, supra note 106, art. 16. For international agreements recognizing the obligation to avoid transboundary harm arising from water usage, see ASEAN Agreement, supra note 138, arts. 19(2)(a), 20(1); Carpathians Convention, supra note 138, art. 12(1); Helsinki Convention, supra note 140, art. 2(1); Luso-Spanish Convention, supra note 138, arts. 10(1), 15(1); Revised African Convention, supra note 140, art. VII(1)(b), (c).

For “soft law” instruments that recognize such obligations, see Helsinki Rules, supra note 99, § V(2)(k); Rio Declaration, supra note 138, princ. 2; U.N. Convention, supra note 104, art. 7. See generally Dellapenna, International Law, supra note 119, § 49.05(a)–(a)(2).

147. Berlin Rules, supra note 106, arts. 12, 16. The Berlin Rules posit that decision-makers, in resolving the rights and duties of States regarding their internationally shared waters, must not only give “due regard” to the right of equitable utilization in deciding whether there is a violation of the duty to avoid transboundary harm (as under the U.N. Convention, supra note 104, art. 7(2)), but also must give due regard to the obligation not to cause transboundary harm when deciding whether an actual or proposed use is equitable and reasonable (a provision with no counterpart in the U.N. Convention). What this change means, if anything, undoubtedly will lead to some interesting debates.
Much or most of the chapters pertaining to all waters (national and international) either are new or are significantly different from the content of the Helsinki Rules and the UN Convention, both of which restricted their coverage solely to international waters. Chapter IV deals with the rights of persons, including the right of access to water, the right to participate in decisions and to necessary information, and the rights of persons organized as communities. Chapter V deals in considerable detail with the protection of the environment, including the obligation to protect the ecological integrity of the aquatic environment.


150. Berlin Rules, supra note 106, arts. 18, 19. See generally sources cited supra note 140.

151. Berlin Rules, supra note 106, arts. 20, 21. For international agreements recognizing the rights of communities, see Ramsar Convention, supra note 138, art. 3(a); Revised African Convention, supra note 140, art. XVII(3). For "soft law" instruments recognizing the rights of communities, see Bonn Declaration, supra note 138, recs. 6(3), 11(1), (2); Rio Declaration, supra note 138, princ. 22. For discussions of the rights of communities, see Mccaffrey, supra note 100, at 397–413; Negotiating Water Rights, supra note 140.

152. Berlin Rules, supra note 106, arts. 22 (integrity generally), 24 (ecological flows), 25 (alien species). For international agreements recognizing the obligation to protect ecological integrity, see Alps Convention, supra note 138, art. 2(2)(f); ASEAN Agreement, supra note 138, art. 8(2)(b); Biodiversity Convention, supra note 138, arts. 8(d), (f), (h), 10(b); Carpathians Convention, supra note 138, arts. 2(2)(g), 4(1), (3), (6)(c); Rhine Convention, supra note 142, art. 3(1)(c); EU Water Framework Directive, supra note 138, arts. 1, 4; Helsinki Convention, supra note 140, art. 2(2), (7); Incomai Agreement, supra note 138, arts. 6, 9; Luso–Spanish Convention, supra note 138, arts. 2(1), 10, 13(2), 16; Mekong Agreement, supra note 138, arts. 3, 6; Ramsar Convention, supra note 138, arts. 3(2), 4(1), (2); Revised African Convention, supra note 140, art. VII(1)(a); SADC Protocol, supra note 142, arts. 4(2)(c), 4(3)(b)(1).
tion to apply the precautionary approach, and the duty to prevent, eliminate, reduce, or control pollution as appropriate (including a special rule on hazardous substances). Chapter VI addresses the obligation to undertake the assessment of the environmental impacts of programs, projects, or activities relating to all waters—national and international. Chapter VII sets forth

For “soft law” instruments recognizing the obligation to protect ecological integrity, see Bonn Declaration, supra note 138, recs. 4, 8; Rio Declaration, supra note 138, princ. 7; U.N. Convention, supra note 104, arts. 20, 22, 23, 25.


155. Newton et al., supra note 138, recs. 4, 8; Rio Declaration, supra note 138, princ. 7; U.N. Convention, supra note 104, arts. 20, 22, 23, 25.

156. Berlin Rules, supra note 106, arts. 26–28. For international agreements recognizing a duty to minimize or otherwise control pollution, see ASEAN Agreement, supra note 138, art. 3(b); Revised African Convention, supra note 142, art. 4(2)(b); Helsinki Convention, supra note 140, art. 2(4); Incomati Agreement, supra note 138, art. 3(b); Revised African Convention, supra note 140, art. 4; Rhine Convention, supra note 142, art. 4(b).

For “soft law” instruments recognizing the precautionary approach, see Bonn Declaration, supra note 138, rec. 5(2); Rio Declaration, supra note 138, princ. 15.


157. Berlin Rules, supra note 106, arts. 26–28. For international agreements recognizing a duty to minimize or otherwise control pollution, see ASEAN Agreement, supra note 138, art. 11; Carpathians Convention, supra note 138, art. 2(2)(b); Danube Convention, supra note 142, art. 2(4); EU Water Framework Directive, supra note 138, art. 3(a), (b); Helsinki Convention, supra note 138, arts. 2, 11; Incomati Agreement, supra note 138, arts. 4(a), 8(1)(c); Luso-Spanish Convention, supra note 138, arts. 10(1)(b), 13, 14; North American Agreement on Environmental Cooperation, supra note 140, art. 1(v), (vi); Revised African Convention, supra note 140, art. VII(e); SADC Protocol, supra note 142, art. 4(2)(b)(i).

For “soft law” instruments recognizing a duty to minimize or otherwise control pollution, see Bonn Declaration, supra note 138, rec. 8; Rio Declaration, supra note 138, princ. 16; U.N. Convention, supra note 104, arts. 21, 23. On the status of these duties as customary international law, see ANDRÉ NOLLKAEMPER, THE LEGAL REGIME FOR TRANSBOUNDARY WATER POLLUTION: BETWEEN DISCRETION AND CONSTRAINT (1993); Thomas W. Merrill, Golden Rules for Transboundary Pollution, 46 DUKE L.J. 931 (1997).

158. Berlin Rules, supra note 106, arts. 26–28. For international agreements addressing hazardous substances, see EU Water Framework Directive, supra note 138, art. 1(c); Great Lakes Water Quality Agreement, supra note 69, art. II(d); see also U.N. Convention, supra note 104, art. 21(3)(c).

obligations for cooperative and separate responses to extreme situations, including highly polluting accidents, floods, and droughts.\(^{157}\)

Perhaps the most significant innovations in the *Berlin Rules* are in Chapter VIII, dealing with groundwater.\(^{158}\) No prior compilation of the customary international law pertaining to waters said much about groundwater. The *Seoul Rules*, approved by the International Law Association in 1986 as a supplement to the *Helsinki Rules*, merely stated that the rules for surface waters also applied to groundwater.\(^{159}\) The UN Convention said even less about groundwater.\(^{160}\) While in principle the same rules apply to surface waters and groundwater (the obligation of conjunctive management implies as much), the characteristics of groundwater are so different from surface water sources that the *Berlin Rules* spell out in some detail how the general principles and rules apply specifically to the management of aquifers. Most of the rules in Chapter VIII apply to all aquifers (national and international), although one rule speaks specifically to the legal issues that relate to transboundary aquifers.\(^{161}\) Chapter VIII also makes explicit that its rules apply to all aquifers, regardless of whether the aquifer is connected to surface waters or whether it receives any significant contemporary recharge.\(^{162}\)

The *Berlin Rules* represent a bold departure in the formulation of the customary international law of water resources when compared to the *Helsinki Rules* or the UN Convention. Yet compared to international environmental law and the international law of human rights, the *Berlin Rules* are not bold at all. Time will tell whether governments, courts, and international lawyers will accept the *Berlin Rules* as fully or as quickly as they accepted the *Helsinki Rules*. The nature of customary international law always leaves room to debate both whether a particular practice of States has reached the status of binding international law and the precise content of the customary rules.\(^{163}\) Some of the new articles are firmly grounded in international human rights law, and are well

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\(^{157}\) Id. arts. 32–35.

\(^{158}\) Id. arts. 36–42.


\(^{160}\) See McCaffrey, supra note 100, at 414–33.

\(^{161}\) Id. art. 36.

\(^{162}\) Berlin Rules, supra note 106, art. 42.

\(^{163}\) See generally Karol Wolke, Custom in Present International Law (2d ed. 1993).
beyond question.\footnote{164} Other articles are supported strongly by international environmental agreements that have entered into force and are widely followed, even in nations that have not ratified them.\footnote{165} The International Law Association concluded that the Berlin Rules correctly summarize the current state of customary international law as it pertains to water resources.

In sum, the International Law Association approved a new paradigm for synthesizing the somewhat disparate rules into a coherent whole based on a recognized set of legal principles. The new paradigm includes five general principles, already described, that apply to States in the management of all waters, wholly national or domestic waters as well as internationally shared waters:

1. Participatory water management;\footnote{166}
2. Conjunctive management;\footnote{167}
3. Integrated management;\footnote{168}
4. Sustainability;\footnote{169} and
5. Minimization of environmental harm.\footnote{170}

The Berlin Rules also posit four further principles relating to water in a strictly international or transboundary context:

6. Cooperation;\footnote{171}
7. Equitable utilization;\footnote{172}
8. Avoidance of transboundary harm;\footnote{173} and
9. Equitable participation.\footnote{174}

This new paradigm—a coherent, cogent, and comprehensive vision of the current state of the relevant customary international law—should serve lawyers, water managements, and other decision-makers well.

\footnote{164}{See generally Dellapenna, International Law, supra note 119, § 49.08.}
\footnote{165}{See generally id. § 49.07.}
\footnote{166}{Berlin Rules, supra note 106, arts. 4, 17–21, 30, 69–71.}
\footnote{167}{Id. arts. 5, 37.}
\footnote{168}{Id. arts. 6, 22–24, 37–41.}
\footnote{169}{Id. arts. 7, 10(1), 12(2), 13(2)(h), 22, 23(1), 29, 35(2)(c), 38, 40, 54(1), 58(3), 62, 64(1).}
\footnote{170}{Id. arts. 8, 15(2)(i), 22–35, 38–41.}
\footnote{171}{Id. arts. 9(2), 10, 11, 32–35, 42, 56–67.}
\footnote{172}{Id. arts. 12–15, 42.}
\footnote{173}{Id. arts. 16, 42.}
\footnote{174}{Id.}
III. CONTEMPORARY CHALLENGES AND THE LESSONS OF CUSTOMARY INTERNATIONAL LAW

The foregoing analysis demonstrates the complexity of the existing arrangements (including interstate compacts, informal interstate arrangements, two international agreements, and acts of Congress) relating to transboundary management of the Great Lakes and allows a comparison between the Law of the Lakes and the standards of customary international law. Despite the complexity of the Great Lakes arrangements, they still fall short of providing adequate transboundary management for the Lakes. The realization of this failure led to the efforts to negotiate a new interstate compact over the last five years. The question is whether the proposed new compact will resolve the problems confronting the Lakes and the users of the Lakes. In this Part, I first describe some of the salient contemporary challenges to the management of the Lakes. I next outline the features of the proposed new legal and quasi-legal governance regime. Finally, I compare the proposed new regime with the relevant international legal standards.

A. Contemporary Challenges

The Great Lakes have long featured a number of difficult issues relating to water allocation that have not been resolved, including lake levels and flows, water quality, waterborne transportation, fisheries, and energy. \(^{175}\) Lake levels and minimum flows are particularly vexing because levels fluctuate constantly, with fluctuations of two or three feet having different effects on shipping, power generation, shore properties, and recreation. \(^{176}\) Navigation interests prefer high levels, hydropower interests prefer flows through their facilities as high as possible (which tend to lower lake levels), and shore property interests prefer as little fluctuation as possible. Achieving a perfect balance of benefits and detriments among the various interests has proven nearly impossible. \(^{177}\) Demands upon the Lakes, however, have only continued to increase.


\(^{176}\) See, e.g., Hugh McDiarmid, Jr., Miller Seeks Federal Study of Erosion Link to Lakes' Water Loss, DET. FREE PRESS, Mar. 3, 2005, at 2B; Schwartz et al., supra note 1; Yin, supra note 1.

\(^{177}\) Dworsky, supra note 175, at 308–09.
The case of Wisconsin v. Illinois, which lasted from the 1950s to 1980, illustrates the conflicts that the increasing demand for water from the Lakes generates. Three small Illinois communities (Elmhurst, Villa Park, and Lombard) sought to use Lake Michigan water because it was the cheapest source of additional water to meet the demands of their increasing populations. The proposed withdrawal, however, threatened to establish a dangerous precedent, and the other Great Lakes States objected. The State of Illinois sought a declaratory judgment from the Supreme Court of the United States. The matter was not brought before the International Joint Commission because the withdrawal of water for domestic and sanitary uses always trumps other uses under the Boundary Waters Treaty.

While the withdrawal of water by three small communities for domestic purposes may not pose a serious threat to the Lakes, the aggregate effect of similar withdrawals by many communities around the Lakes raised concerns about lake levels. Then in the 1980s came proposals to divert vast amounts of water to recharge the Ogallala aquifer or for other exports out of the basin. The result was the creation of the Great Lakes Charter in 1985, the enactment of the Water Resources Development Act of 1986, as well as a “finding” by the International Joint Commission that there is no surplus water available for export. Canada has also been alarmed by proposals to export water from the Lakes, but thus far has not taken any effective action to bar it.

Unresolved questions about the effects of global and regional trade regimes on trade in bulk water complicate efforts to restrict

179. Boundary Waters Treaty, supra note 4, arts. III, VIII.
180. See A REPORT ON THE PROPOSED EXPANSION OF THE CITY OF AKRON WATER SYSTEM, supra note 80; Sherk, supra note 77.
181. See sources collected supra at 81.
182. Great Lakes Charter, supra notes 34–38 and accompanying text.
exports from the basin. Upon joining the North American Free Trade Agreement ("NAFTA") in 1993, Canada and the United States sought to forestall disputes over water exports by issuing a joint statement declaring that "[w]ater in its natural state, in lakes, rivers, reservoirs, aquifers, water basins and the like is not a good or product, is not traded, and therefore is not and never has been subject to the terms of any trade agreement." While that statement might have a significant impact on claims under NAFTA, it is of questionable relevance if asserted as a defense to an alleged violation of the General Agreement on Tariffs and Trade brought before the World Trade Organization.

Nor have the several interstate and international initiatives, supplemented by public/private partnerships, dealt adequately with water quality concerns—even though several scholars have concluded that the International Joint Commission is the "exemplary model" of transboundary ecosystem management. These institutions have been more successful in dealing with the strictly


190. Patricia W. Birnie & Alan E. Boyle, INTERNATIONAL LAW AND THE ENVIRONMENT 327 (2d ed. 2002); David Hunter et al., INTERNATIONAL ENVIRONMENTAL LAW AND POLICY 809 (2d ed. 2002).
engineering aspects of water management than with pollution.\footnote{191} Still, these limited mechanisms have been somewhat effective in improving the water quality of the lakes despite the lack of stronger basin wide institutions.\footnote{192} Yet such improvements in water quality as there have been in recent decades have resulted from loosely coordinated steps taken independently by the several States and Provinces or the two federal governments.\footnote{193} Much improvement remains necessary and possible, leading to numerous suggestions over many years for the consolidation of technical and management skills in a separate organization with the authority to tackle the transboundary problems more effectively.\footnote{194}

\section*{B. The Proposed Great Lakes Governance Regime}

Responding to the inadequacies of the existing regional water management regime and fearing that growing external pressures could lead to the export of water from the Great Lakes, the Governors of the eight Great Lakes States and the Premiers of the two Great Lakes Provinces signed “Annex 2001” to the Great Lakes Charter, committing themselves to creating a regional management system for the Lakes that would have real teeth within three years.\footnote{195} The process actually took a bit longer, but it did produce an agreement on a new interstate compact (the “Proposed Compact”), including the eight Great Lakes States but not the

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\item \footnote{191} See generally INT'L JOINT COMM'N, TWELFTH BIENNIAL REPORT ON GREAT LAKES WATER QUALITY (2004), http://www.ijc.org/php/publications/html/12br/pdf/12bbrfull_e.pdf; Christie, supra note 74, at 290–93; DeWitt, supra note 5, at 313–14; Michael J. Donahue, The Great Lakes: A Report Card, 28 CAN.-U.S. L.J. 457 (2002); Fassbender, supra note 71; Sadler, supra note 70, at 385–86; Siros, supra note 34, at 303–10; Verweij, supra note 71.
\item \footnote{192} BILLUPS ET AL., supra note 70; Symposium, Great Lakes, supra note 70; Symposium, Ground Water Contamination, supra note 8.
\item \footnote{193} Arvin, supra note 70; Gallagher, supra note 70, at 472–73, 476–87; Siros, supra note 34, at 287–303; Symposium, Interplay, supra note 72; Symposium, Regulations, supra note 72.
\item \footnote{194} LYLE E. CRAINE, FINAL REPORT ON INSTITUTIONAL AGREEMENTS FOR THE GREAT LAKES 2–3 (1972); Richard B. Bilder, Controlling Great Lakes Pollution: A Study of United States-Canadian Environmental Cooperation, 70 Mich. L. Rev. 469 (1972); Christie, supra note 74; DeWitt, supra note 5, at 317–39; Dworsky, supra note 175, at 321–22, 329–26; Gallagher, supra note 70; Great Lakes Charter, supra note 94, at 36; Earl, supra note 34; LeMarquand, supra note 5, at 299.
\item \footnote{195} Annex 2001, supra note 10. For analysis of the reasons for and goals of the Annex 2001 process, see Ballesteros, supra note 10; Edstrom et al., supra note 10; Everhardt, supra note 1; Hinkle, supra note 1, at 306–10; Hall, supra note 11, at 432–55; Olson, supra note 10, at 35; Mark Squillace & Sandra Zellmer, Managing Interjurisdictional Waters under the Great Lakes Charter Annex, 18 NAT. RESOURCES & ENV'T., Fall 2003, at 8; Sandra Zellmer et al., The Improvement of Water and Water-Dependent Resources Under the Great Lakes Charter Annex, 4 TOL. J. GREAT LAKES' L. SCI. & POL’Y 289 (2002).
Provinces, that the Governors signed on December 13, 2005.\textsuperscript{196} The negotiators also produced a parallel agreement (the “Great Lakes Agreement”) that included the eight States and the two Provinces.\textsuperscript{197} The Proposed Compact and the Great Lakes Agreement are nearly identical except for the list of participants and that the Great Lakes Agreement, in contrast to the Proposed Compact, is not intended to be legally binding. By keeping the agreement between the States and Provinces informal (in the sense of lacking legal obligation), the parties avoided the need to bring in the two federal governments to negotiate a treaty or other international agreement, a process that would further complicate what had proven already to be a complex and difficult task.\textsuperscript{198} Despite (or because of) its non-binding character, most of the Great Lakes Agreement came “into effect” from the moment of its signing or soon thereafter,\textsuperscript{199} whatever that means for a non-binding agreement. Despite its non-binding character, the States and Provinces provide for an elaborate dispute resolution process should disagreements arise relating to the agreement.\textsuperscript{200}

The Proposed Compact creates a Great Lakes-St. Lawrence River Basin Water Resources Council (the “Council”) composed of the governors of each State (or their designated representative).\textsuperscript{201} The parallel body under the Great Lakes Agreement, identical in all respects except that it adds the Premiers of the two Provinces, is the Great Lakes-St. Lawrence Water Resources Regional Body (the “Regional Body”).\textsuperscript{202} The Council and the Regional Body are charged to determine (and to evaluate on an ongoing basis) the basin wide objectives to be implemented and enforced by the participating States and Provinces.\textsuperscript{203}

\begin{itemize}
  \item \textsuperscript{196} Proposed Compact, \textit{supra} note 9. \textit{See generally} Hall, \textit{supra} note 11, at 435–48; Hubbard, \textit{supra} note 11, at 28.
  \item \textsuperscript{198} Great Lakes Agreement, \textit{supra} note 197, art. 700(2); \textit{see also} U.S. CONST. art. I, § 10, cl. 3. \textit{See generally} Jennetten, \textit{supra} note 36; Edward T. Swaine, \textit{Does Federalism Constrain the Treaty Power?}, 103 COLUM. L. REV. 403 (2003).
  \item \textsuperscript{199} Great Lakes Agreement, \textit{supra} note 197, art. 709.
  \item \textsuperscript{200} \textit{Id.} arts. 600, 601.
  \item \textsuperscript{201} Proposed Compact, \textit{supra} note 9, §§ 1.2, 2.1, 2.2; \textit{see also} Hall, \textit{supra} note 11, at 444.
  \item \textsuperscript{202} Great Lakes Agreement, \textit{supra} note 197, art. 400; \textit{see also} Hall, \textit{supra} note 11, at 447.
  \item \textsuperscript{203} Proposed Compact, \textit{supra} note 9, §§ 4.1–4.2; Great Lakes Agreement, \textit{supra} note 197, art. 400(2)(f).
\end{itemize}
The Proposed Compact and the Great Lakes Agreement also lay down rather specific standards to govern the “diversion” of water from the basin.204 “Diversion” is defined as the:

\[ \text{Transfer of Water from the [Great Lakes] Basin into another watershed, or from the watershed of one of the Great Lakes into that of another by any means of transfer, including but not limited to a pipeline, canal, tunnel, aqueduct, channel, modification of the direction of a watercourse, a tanker ship, tanker truck or rail tanker[,] but does not apply to Water that is used in the Basin or Great Lakes watershed to manufacture or produce a Product that is then transferred out of the Basin or watershed.} 205

In both agreements, the effectuation of these standards, however, is left largely to the individual State(s) wherein the proposed diversion is to occur (the “originating Party”).206 The Proposed Compact makes only a very general provision for the Council to review proposed diversions upon submission by the originating Party to the Council.207 The Council is to apply the terms of the Compact and its “Standards of Review and Decision” in passing on such submissions.208

Curiously, no general provision sets forth which proposed diversions States must submit to Council review, although a general provision defines which proposed diversions are subject to “regional review”—review by the Regional Body under the non-binding Great Lakes Agreement.209 One finds requirements for Council review (and unanimous approval) buried in specific provisions relating to “intra-basin transfers”210 and “straddling counties.”211 For “straddling communities,” the only criterion is that

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204. Proposed Compact, supra note 9, §§ 4.8, 4.9, 4.11; Great Lakes Agreement, supra note 197, arts. 200, 201, 203; see also Hall, supra note 11, at 441–44.

205. Proposed Compact, supra note 9, § 1.2; Great Lakes Agreement, supra note 197, art. 103.

206. Proposed Compact, supra note 9, §§ 4.1, 4.3, 4.4, 4.6, 4.9, 4.10, 4.12, 4.15; Great Lakes Agreement, supra note 197, art. 202; see also Hall, supra note 11, at 439–44 (discussing the Proposed Compact).

207. Proposed Compact, supra note 9, § 4.7.

208. Id. § 4.7(2). Presumably this is a reference to sections 4.5 and 4.11, although that is not made explicit.

209. Id. §§ 4.5 (defining the scope of “regional review”), 4.7(2) (“The Council shall not take action on a Proposal subject to Regional Review pursuant to this Compact unless the Proposal shall have been first submitted to and reviewed by the Regional Body.”).

210. Id. § 4.9(2)(c)(iii), (iv); Great Lakes Agreement, supra note 197, arts. 201(2)(c)(iii), (iv).

211. Proposed Compact, supra note 9, §§ 4.9(3)(f), (g); Great Lakes Agreement, supra note 197, arts. 201(3)(f), (g).
proposed diversions larger than 5,000,000 gallons per day ("gpd") must undergo regional review—there is no provision for Council review of these diversions. Because actions taken pursuant to the Great Lakes Agreement are not legally binding, the outcome of the "regional review" is merely something for the Council to "consider" in making its decision. At this point, one might wonder whether the Proposed Compact and the Great Lakes Agreement are so entangled with each other that the claim that the Agreement is not legally binding, and therefore does not tread upon the foreign affairs power of the federal government, can be sustained if it were challenged.

The standards that are to govern "diversions" under the Proposed Compact and the Great Lakes Agreement focus on water quantity issues with hardly a mention of quality issues. The first requirement is that each State and Province maintain a water resources inventory and require each person who uses an average of 100,000 gpd or more to register the use, but does not require any information on water quality. The two documents further require the States and Provinces to develop and implement water conservation and efficiency programs, but make no reference to water quality. The standards for evaluating proposed diversions require that all "diversions" be environmentally sound, but provide no specifics on what "environmentally sound" means or requires. Sustainability is mentioned only as an important concern justifying the imposition of the two institutions' regulatory standards.

In contrast to the vague water quality and environmental sustainability standards, these standards spell out in considerable detail water quantity concerns that are to govern whether a State or Province or the Council or Regional Body is to approve a "diversion." This begins with a quantitative threshold for Council or Regional review—namely, a new or increased consumptive use of

212. Proposed Compact, supra note 9, § 4.9(1)(c); Great Lakes Agreement, supra note 197, art. 201(1)(c).
213. Proposed Compact, supra note 9, § 4.7(2). Recall that the standards for reviewing diversions under the Proposed Compact and the Great Lakes Agreement are identical. See Great Lakes Agreement, supra note 197, ch. 500.
214. See sources cited supra note 198.
215. Proposed Compact, supra note 9, § 4.1; Great Lakes Agreement, supra note 197, arts. 301(1), (3).
216. Proposed Compact, supra note 9, § 4.2; Great Lakes Agreement, supra note 197, art. 304.
217. Proposed Compact, supra note 9, §§ 4.9(2)(b)(ii), (c)(ii), (4)(c), 4.111(3); Great Lakes Agreement, supra note 197, arts. 201(b)(ii), (c)(ii), 4(e), 203(3).
218. Proposed Compact, supra note 9, § 1.3(e); Great Lakes Agreement, supra note 197, pmbl.
5,000,000 gpd, averaged over any ninety-day period. 219 An applicant for a "diversion" must demonstrate that all water (except for an "allowance for Consumptive Use") will return to the source watershed 220 and that the proposed use is "reasonable." 221 Determining the reasonableness of a proposed use requires consideration of:

1. whether the use is efficient and without waste; 222
2. the balance between economic, social, and environmental needs; 228
3. the potential availability of water; 224
4. the duration of adverse impacts (particularly on other users); 225 and
5. the possible restoration of "hydrologic conditions." 226

While some of these factors do refer in a general way to environmental factors, the clear focus is on quantitative measures and not on the maintenance of water quality.

The focus on quantity issues is made clear by the exception for certain "diversions" made within "straddling communities" or between sub-basins of the Great Lakes watershed. 227 Such "diversions" are exempted from Council or Regional Body review if they involve less than 100,000 gpd of diversion or less than 5,000,000 gpd of consumptive use. 228 While larger diversions are prohibited, 229 smaller diversions are to be regulated solely by the States. "Diversions" within "straddling counties," however, require unanimous consent of the Council, after review by the Regional Body, as do

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219. Proposed Compact, supra note 9, § 4.6(1); Great Lakes Agreement, supra note 197, art. 205(1).
220. Proposed Compact, supra note 9, §§ 4.9(4)(c), 4.11(1); Great Lakes Agreement, supra note 197, arts. 201(4)(c), 203(1).
221. Proposed Compact, supra note 9, §§ 4.09(4)(b), 4.11(5); Great Lakes Agreement, supra note 197, arts. 201(4)(b), 203; see also Hall, supra note 11, at 436-39.
222. Proposed Compact, supra note 9, §§ 4.09(4)(a), 4.11(5)(a), (b); Great Lakes Agreement, supra note 197, arts. 201(4)(a), (e), 203(5)(a), (b).
223. Proposed Compact, supra note 9, § 4.11(5)(c); Great Lakes Agreement, supra note 197, art. 203(5)(c).
224. Proposed Compact, supra note 9, § 4.11(5)(d); Great Lakes Agreement, supra note 197, art. 203(5)(d).
225. Proposed Compact, supra note 9, §§ 4.09(4)(d), 4.11(5)(e); Great Lakes Agreement, supra note 197, arts. 201(4)(d), 203(5)(e).
226. Proposed Compact, supra note 9, § 4.11(5)(f); Great Lakes Agreement, supra note 197, art. 203(5)(f).
227. Proposed Compact, supra note 9, §§ 1.2, 4.9; Great Lakes Agreement, supra note 197, arts. 103, 201.
228. Proposed Compact, supra note 9, § 4.09(1)(b), (c); Great Lakes Agreement, supra note 197, arts. 201(1)(b), (c); see also Hall, supra note 11, at 441-43.
229. Proposed Compact, supra note 9, § 4.8; Great Lakes Agreement, supra note 197, art. 200(1).
intra-basin transfers averaging more than 100,000 gpd. The legal standards that States are to apply to these diversions when they are not subject to Council or regional review are substantially the same as for those subject to review by the Council or the Regional Body.

The Proposed Compact and the Great Lakes Agreement both provide for public participation in water management decisions and for consultations with Native American tribes. The right of public participation expressly includes a right of access to information and, under the Proposed Compact, the right of an aggrieved party (including a State or Province) to judicial review under the applicable administrative procedures laws. This right is to extend to the right of an aggrieved person to sue any individual water user whose use violates the terms of the Proposed Compact, with the prevailing party entitled to recover attorneys fees and expert witness fees.

The two accords promote the development and application of scientific knowledge to the management of the waters of the basin. They also grandfather all existing withdrawals without the possibility of review by any collective agency. They also expressly protect the allocations under Wisconsin v. Illinois, which allows the diversion of water from Lake Michigan through the Chicago

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230. Proposed Compact, supra note 9, §§ 4.09(2)(c)(iii), (iv) (intra-basin transfers), (3)(f), (g) (straddling counties); Great Lakes Agreement, supra note 197, arts. 201(2) (c)(iii), (iv) (intra-basin transfers), 3(f), (g) (straddling counties).

231. Compare Proposed Compact, supra note 9, § 4.9, and id. § 4.11, with Great Lakes Agreement, supra note 197, art. 201, and id. art. 203. See generally Hall, supra note 11, at 441 n.207.

232. Proposed Compact, supra note 9, §§ 4.3(3), 6.1, 6.2; Great Lakes Agreement, supra note 197, arts. 401(10), (11), 503.

233. Proposed Compact, supra note 9, §§ 5.1, 8.1(3); Great Lakes Agreement, supra note 197, arts. 504, 702.

234. Proposed Compact, supra note 9, §§ 4.1(5), 6.2; Great Lakes Agreement, supra note 197, arts. 302(2), 303, 401(8), (9), 503(2).

235. Proposed Compact, supra note 9, § 7.3. As the Great Lakes Agreement is not binding, it expressly excludes judicial remedies under it. Great Lakes Agreement, supra note 197, art. 701(1).

236. Proposed Compact, supra note 9, § 7.3(3).

237. Id. §§ 4.1(6), 4.5(4), 4.15(1)(a); Great Lakes Agreement, supra note 197, arts. 209(1), (2), 301(4), 302, 505.

238. Both documents expressly limit their effect to "new or increased" diversions. Proposed Compact, supra note 9, §§ 4.3(1), 4.8, 8.1; Great Lakes Agreement, supra note 197, art. 200(1).

239. Proposed Compact, supra note 9, § 4.14; Great Lakes Agreement, supra note 197, art. 207(10)–(14).

Sanitary and Shipping Canal into the Mississippi watershed. Curiously, no mention is made of the power of the governors to veto “diversions” under the Water Resources Development Act of 1986, unless one considers the requirement that all “diversions” be consistent with all relevant state and federal laws.

When the first drafts of the proposed accords were released for public comment, public opinion in the Great Lakes States and Provinces was sharply divided. Canadians were particularly put off by the non-binding nature of the Great Lakes Agreement—the agreement under which they are given a voice in regional management decisions. While the two accords were modified into the form described above before they were finally signed by the governors and premiers (as appropriate), these changes have not silenced the sometimes strident debate about their merits.

C. The Lessons from International Law

There are a number of unresolved problems in the Proposed Compact and the Great Lakes Agreement. What these are and how they might be resolved are illuminated by comparing the agreements’ provisions to the provisions of the Berlin Rules—the most up-to-date summary of the rules of the customary international law relating to water resources. Because the Great Lakes are internationally shared, I begin by considering the principles relating to


242. Proposed Compact, supra note 9, §§ 4.11(4), 8.4; Great Lakes Agreement, supra note 197, art. 203(4). It is unclear why there is such a provision in the Great Lakes Agreement given its “non-binding” character. See Great Lakes Agreement, supra note 197, arts. 700–704 (establishing that the Great Lakes Agreement has no effect on federal statutes or treaties, nor on the rights of tribes).


244. See, e.g., sources cited supra note 12.

such waters. These principles are cooperation, equitable utilization, avoidance of harm, and equitable participation. The issues that arise in the new accords relative to these principles largely relate to the managerial structures the accords create for the Lakes. I then turn to certain issues arising from the principles and rules that apply to all waters. Among the principles and rules applicable to all waters, the primary concerns under the new accords relate to participatory rights and to environmental concerns.

1. The Managerial Regime

In comparing the new structures to the Berlin Rules, one must consider primarily the Great Lakes Agreement, for that is the accord that addresses the international nature of the Lakes. The Great Lakes Agreement certainly provides for some measure of cooperation. Neither it nor the Proposed Compact, however, address even the most basic traditional issue of international water law: how much water is the equitable share of a given State or Province (or of the two nations).

Turning to the issues that the Great Lakes Agreement does address, how much cooperation will result from the Agreement is unclear because of its “non-binding” nature and because of its dependence on and confusing relationship to the “binding” Proposed Compact. This is even more confusing given that a great deal of the “non-binding” Agreement has come “into effect,” while none of the “binding” Compact is in effect and it cannot come into effect until it is approved by all of the state legislatures and consented to by Congress. Presumably, the participating States and Provinces expect that the Agreement will become the primary mechanism for cooperative management of the lakes, yet the decisions by the Regional Body are not binding on the Compact’s Council, nor, apparently, do decisions by either the Regional Body or the Council prevent unilateral vetoes by the governor of a single State under the Water Resources Development Act of

247. See supra text accompanying notes 166–170.
249. Great Lakes Agreement, supra note 197, art. 701(1).
250. See supra text accompanying notes 209–214.
251. Great Lakes Agreement, supra note 197, art. 709.
252. See U.S. CONST. art. 1, § 10, cl. 3.
1986.\textsuperscript{253} As if this is not enough, there is also the question of how the decisions of the Regional Body and the Council are to relate to the decisions of the International Joint Commission, which still exists and the regulatory authority of which overlaps to a significant extent with the authority of these new institutions.\textsuperscript{254} This last question is resolved in the Great Lakes Agreement and the Proposed Compact, both of which indicate that they are subordinate to the International Joint Commission.\textsuperscript{255}

None of this precludes effective cooperative decision-making, but neither does it assure such decision-making. The very complexity of the interrelationships, however, could, at least at times, impede effective cooperative decision-making. The Berlin Rules provide a template for how to create a simpler, more centralized, cooperative decision-making institution.\textsuperscript{256} The design of the new institutions is a step forward, for example, in expressly recognizing the importance of scientific input into the decision making process.\textsuperscript{257} But the two accords do not attempt to set up a system for the "integrated management of waters of an international drainage basin."\textsuperscript{258} The authority of the new institutions is too limited, is not clearly defined, and will clash with other institutions (e.g., the International Joint Commission, the veto power of the governors) with overlapping authority. Yet such an integrated system is essential if the increasing stresses on the water resources of the region are to be managed properly.\textsuperscript{259}

At bottom the new institutions are designed to prevent the export of water from the basin, and to do little more than that. As far as the Proposed Compact goes, such a discriminatory purpose will be insulated from commerce clause challenges by the congressional consent necessary to make a compact legally effective.\textsuperscript{260} Yet such a clearly discriminatory intent might very well invite claims

\begin{itemize}
  \item \textsuperscript{253} 42 U.S.C. § 1962d-20 (2000 & Supp. 2001); see supra notes 75–96 and accompanying text; see also Proposed Compact, supra note 9, §§ 4.11(4), 8.4; Great Lakes Agreement, supra note 197, art. 203(4).
  \item \textsuperscript{254} See Boundary Waters Treaty, supra note 4, arts. VIII, IX. See generally Dellapenna, supra note 4, §§ 50.02(b), (c), 50.06(a).
  \item \textsuperscript{255} Proposed Compact, supra note 9, § 8.2(3); Great Lakes Agreement, supra note 197, art. 701(2).
  \item \textsuperscript{256} Berlin Rules, supra note 106, arts. 64–67.
  \item \textsuperscript{257} Compare Proposed Compact, supra note 9, §§ 4.1(6), 4.5(4), 4.15(1), and Great Lakes Agreement, supra note 197, arts. 209(1), (2), 301(4), 302, 505, with Berlin Rules, supra note 106, art. 65(1)(a). See generally Krantzberg, supra note 23; Stephanie Tai, Three Asymmetries of Informed Environmental Decisionmaking, 78 TEMP. L. REV. 659 (2005).
  \item \textsuperscript{258} Berlin Rules, supra note 106, art. 64(1).
  \item \textsuperscript{259} See, e.g., Susan H. MacKenzie, Toward Integrated Resource Management: Lessons About the Ecosystem Approach from the Laurentian Great Lakes, 21 ENVTL. MGMT. 175 (1997).
  \item \textsuperscript{260} See Dellapenna, Regulated Riparianism, supra note 7, § 9.06(a).
\end{itemize}
under NAFTA or the WTO as violations of the international trade regime. Only a truly integrated management regime, one that applies without discrimination to uses within and without the basin, will pass muster under international trade law. This concern also leads to issues regarding what might be termed "participatory rights."

2. Participatory Rights

The Berlin Rules recognize a panoply of rights for persons to participate in the utilization of water resources, including, of course, a right to have a voice in decisions affecting their lives. The Proposed Compact and the Great Lakes Agreement both provide for significant public participation and public access to information, as does the Great Lakes Water Quality Agreement administered by the International Joint Commission. As with management issues generally, there has emerged an overlapping and somewhat confusing set of parallel institutions to assure public participation, to which the Proposed Compact and the Great Lakes Agreement will simply add further avenues for public input. While there is no provision for direct public control over management decisions regarding the basin's waters (such as direct voting or the election of members of the governing bodies), this is neither required nor necessarily recommended under customary international law as summarized in the Berlin Rules.
The Proposed Compact and the Great Lakes Agreement also appear to make adequate provision for consultation and the protection of the rights of indigenous peoples. Unlike the Berlin Rules, however, the two accords do not acknowledge the possible existence of other especially vulnerable communities, such as communities that will be inundated when a reservoir is constructed. Thus the agreements do not recognize such communities' need for special consideration and protection. Presumably, the Proposed Compact's promise of full access to the courts for any person aggrieved by a decision taken under the Compact is expected to fully protect any community. Such access, however, does not obligate anyone—court, Council, or State officer—to acknowledge the special circumstances of vulnerable communities, and thus is not likely to assure such communities of the appropriate protection mandated by customary international law.

Finally, the Proposed Compact and the Great Lakes Agreement, designed as they are to block the export of water from the basin (with limited exceptions for "straddling communities" and "straddling counties"), expressly contradict one of the most important participatory rights summarized in the Berlin Rules—the right of access to water. There certainly is wide recognition today of a human right to a clean and healthy environment, and there is a

268. Proposed Compact, supra note 9, §§ 5.1, 8.1(3); Great Lakes Agreement, supra note 197, art. 504.
270. Proposed Compact, supra note 9, § 7.3. Recall that because the Great Lakes Agreement is not binding, it expressly excludes judicial remedies for its decisions. Great Lakes Agreement, supra note 197, art. 701(1).
271. See, e.g., Revised African Convention, supra note 140, art. XVII(3) (recognizing a right in local communities to participate in the planning and management of locally important natural resources).
272. Proposed Compact, supra note 9, §§ 1.2, 4.9(1), (3); Great Lakes Agreement, supra note 197, arts. 105, 201(1), (5).
growing acceptance of a human right to water. Any doubt about the existence of a right to water was largely resolved by a "general comment" adopted by the UN Economic and Social Council at its Twenty-Ninth Session in Geneva in November 2002, concluding that a human right to water is implicit in the right to an adequate standard of living of the International Covenant on Economic, Social, and Cultural Rights.

The general comment presents a long and persuasive analysis of the legal basis for such a right, although some resist recognition of this right for fear that its recognition will impose a serious burden on governments by requiring them to provide water to everyone. The Berlin Rules do not recognize such an expansive interpretation of the right to water, but merely a government's obligation to ensure that no one encounters improper barriers to access the water they need. Barriers might be imposed by governments or by private actors, but in either case it is the government's responsibility to see that, notwithstanding such barriers, each person has "access to sufficient, safe, acceptable, physically accessible, and affordable water to meet that individual's vital human needs." The emphasis courts have declined to recognize the right. See, e.g., Flores v. S. Peru Copper Corp., 343 F.3d 140 (2d Cir. 2003).


275. See, e.g., Dublin Statement, supra note 138, prirchs. 1–4. On whether such a right forms a part of international law, see Hilal Elver, Peaceful Uses of International Rivers: The Euphrates and Tigris Rivers Dispute 256–86 (2002); Salman & McInerney-Lankford, supra note 149; Alvarez, supra note 149; Jason Aalde, Student Article, Between the Market and the Commons: Ensuring the Right to Water in Rural Communities, 33 Denv. J. Int'l L. & Pol'y 585 (2005); Blumel, supra note 149; Gleick, supra note 149; Hardberger, supra note 149; Pejan, supra note 149.

276. General Comment 15, supra note 149.


278. Berlin Rules, supra note 106, art. 17.

279. Id. art. 17(1).
is on individuals in need of water meeting their own needs without such barriers stopping them. In affluent countries like Canada and the United States, this is more than enough to satisfy the right to water. We need not resolve whether the right goes further in other contexts. In any event, the effectuation of this right requires a transparent process for decision-making regarding water resources.

Nothing in the right of access to water limits it to persons living within the basin or watershed of the water source. If someone lives only a few miles from a major source of fresh water, but happens to live outside the basin of that water source, it might be that the most reasonable way for that person to access the water she needs is to cross the watershed line to obtain water from the nearby source. That is precisely what the Water Resource Development Act of 1986 has been used to prevent. While the Proposed Compact and the Great Lakes Agreement will provide for many such persons through the exceptions for straddling communities and straddling counties, one need not travel very far from the shores of the lakes or the banks of tributary streams to leave the straddling communities and counties.

This is more than just an abstract dispute about theoretical legal rights. The world’s water resources are already under stress. Stress arises from increasing populations, economic

\[\text{\footnotesize{280. Id. art. 17(4).}}\]
\[\text{\footnotesize{281. See Dinsmore, supra note 79, at 468–69; Egan, supra note 79; Egan & Enriquez, supra note 79; Sherk, supra note 77.}}\]
\[\text{\footnotesize{282. Proposed Compact, supra note 9, §§ 1.2, 4.9(1), (3); Great Lakes Agreement, supra note 197, arts. 103, 201(1), (3). This assumes, of course, that no Governor will exercise a veto under the Water Resources Development Act of 1986.}}\]
and growing recognition of ecological or environmental needs for water.\textsuperscript{285} Global climate change is likely to increase this stress dramatically.\textsuperscript{287} If these projections are correct, it seems unrealistic to expect that the Great Lakes—twenty percent of the world's freshwater—can be kept off limits to demands for at least some water users outside the watershed. Relying on a water management regime that is legally suspect because it discriminates so clearly against users from outside the basin will not secure the Lakes from the possibly excessive demands of such users.\textsuperscript{288} A comprehensive, integrated, non-discriminatory legal regime that actually allows for basin-wide management of the Lakes, however, could achieve a reasonable level of protection for the Lakes. If one is to take the goal of a comprehensive integrated legal regime for the Lakes seriously, one must consider environmental concerns as well as quantitative allocation concerns. This brings us to the last of the major areas where the Proposed Compact and the Great Lakes Agreement come up short.

3. Environmental Concerns

The Proposed Compact and the Great Lakes Agreement mention sustainability as an important concern justifying the new institutions' regulatory authority without any attempt at operation-
alizing the concept. The two accords refer to protecting the environment only in a vague, general way—allocations must be "environmentally sound." This is similar to the Boundary Waters Treaty, which mentioned a single environmental concern—pollution—only in broad, general language. The International Joint Commission is dependent upon references from the two governments before being able to undertake studies of environmental problems because it lacks specific authority over pollution problems. The Commission largely failed to address the problem for the first sixty years of its existence. The Council and the Regional Body, acting under the vague mandates of the Proposed Compact and the Great Lakes Agreement, respectively, can hardly be expected to do better, if only because they will be able to consider environmental problems only in the context of reviewing proposed diversions of water out of the Great Lakes basin.

Canada and the United States did eventually enter into an agreement designed to address the growing environmental problems in the Great Lakes—the Great Lakes Water Quality Agreement in 1972, amended in 1978 and 1987. Despite this agreement, however, the Lakes are still being degraded by a complex of interrelated problems including excess nutrients, airborne toxic pollutants, contaminated sediments in rivers and harbors, declining fisheries, wetlands loss, and alteration of natural stream flows from approximately 6000 tributaries across the 300,000 square mile basin—problems that can fairly be described as requiring an ecosystem approach to water management. The 1978

289. Proposed Compact, supra note 9, § 1.3(e); Great Lakes Agreement, supra note 197, pmbl.
290. Proposed Compact, supra note 9, §§ 4.9(2)(b)(ii), (2)(c)(ii), (4)(e). 4.11(3); Great Lakes Agreement, supra note 197, arts. 201(2)(b)(ii), (2)(c)(ii), (4)(e), 203(3).
291. Boundary Waters Treaty, supra note 4, art. IV ("It is further agreed that...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.").
292. Frederick J.E. Jordan, Recent Developments in International Environmental Control, 15 McGill L.J. 279, 295–96, 298–300 (1969); see also Dworsky, supra note 175, at 318.
293. Great Lakes Water Quality Agreement, supra note 69. See generally Berlin Rules, supra note 106, art. 22 (discussing the obligation to maintain the ecological integrity of water resources); Dellapenna, supra note 4, § 50.06(b); DeWitt, supra note 5, at 311–13; Gallagher, supra note 70, at 468–72, 474–76.
amendments to the Great Lakes Water Quality Agreement did introduce the ecosystem approach, but this approach failed to achieve the gains expected because the governments starved the International Joint Commission for funds and support after signing the Protocol. Moreover, the Commission’s efforts were criticized as “empire building.” The result has been an egregious example of ecosystem mismanagement, as is shown by the decimation of the Great Lakes fish stocks through over-fishing and other poor decisions.

### Conclusion

Noah Hall, who served as a member of the Advisory Committee to the Working Group that drafted the Proposed Compact has concluded that the two documents represent a major new approach to interstate water management, which he calls “cooperative interstate federalism.” He argues that “cooperative interstate federalism” has the virtue of imposing collective, but locally defined, standards without unduly interfering with a state’s right to manage its own affairs while accommodating the transboundary nature of the problems without treading upon the supremacy of, or becoming overly dependant on distant federal law. Whether this will prove true, or whether the Proposed Compact (assuming it is duly ratified and comes into effect) will prove to be just a more elaborate form of the “let’s keep in touch” model of interstate compacts that have failed the eastern States, remains to be seen. Meanwhile, it seems clear that the Great Lakes Agreement is precisely a more elaborate “let’s keep in touch” kind of agreement, one that has few teeth with the Proposed Compact in place and no teeth at all should the Proposed Compact never

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295. 1978 Amendments, supra note 69, pmbl.
296. Christie, supra note 74, at 291; Young, supra note 6, at 50–51.
297. See LeMarquand, supra note 5; Don Munton, The View from the Pearson Building, in The International Joint Commission Seventy Years on 60 (Robert Spencer, John Kirton & Kim Richard Nossal eds. 1981).
299. Hall, supra note 11, at 448–54.
300. Dellapenna, Struggles, supra note 7, at 838–39.
come into effect—despite the Agreement's provision that much of it is immediately "in effect."\textsuperscript{301}

Even if the two accords come into effect, we are left with an incomplete version of what internationally is coming to be called "equitable participation."\textsuperscript{302} Under customary international law, States (that is, communities organized as sovereign entities) have a right to participate in the management of their shared water resources.\textsuperscript{303} Individuals also have a right of access to the water resources necessary for their survival.\textsuperscript{304} Establishing an informal arrangement in the hope that matters will work smoothly without the creation of any real decision-making authority (as in the Great Lakes Agreement), or leaving most decisions up to individual States without effective collective control, simply does not fulfill the obligation to ensure the achievement of these rights. While the Proposed Compact would create legally binding norms and institutions to implement those norms, the Compact lacks the geographic scope and neglects environmental and other issues to such a degree that one can question whether it will fulfill its goals as well.

\textsuperscript{301} Great Lakes Agreement, supra note 197, art. 709.
\textsuperscript{302} Dellapenna, \textit{International Law}, supra note 119, § 49.05(c).
\textsuperscript{303} Berlin Rules, supra note 106, arts. 16, 42.
\textsuperscript{304} Id. art. 17.