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THE LAW OF THE LAKES: FROM PROTECTIONISM TO SUSTAINABILITY

Christine A. Klein*

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INTRODUCTION

There is something in the human spirit that responds with great passion and outrage when *outsiders*—however defined—look beyond their own backyards for a useable source of water. Ironically, that same outrage

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is conspicuously absent when nearby neighbors use water wastefully, as by excessive lawn watering during rainstorms, neglect of leaky faucets, or failure to modernize outdated bathroom fixtures that use large amounts of water simply to transport waste. Curiously, the *outsider-neighbor* distinction seems to be rooted in artificial human boundaries (such as state lines), rather than in meaningful ecological boundaries (such as watershed limits). In a well publicized Michigan dispute, for example, residents were outraged by a proposal of Nestlé Waters (a subsidiary of the Perrier Group of America) to construct groundwater withdrawal and water bottling facilities within the state. In that case, citizens responded with organized protests, blocking truckloads of bottled water by lying in the streets, and carrying banners with slogans, such as "our water is not for sale." Presumably, the same response would not be triggered by the consumption of an equal amount of water by Michigan irrigators or even by the incorporation of similar quantities of water into products sold outside the state as baby food or soft drinks.

Whatever its explanation, this protectionist response is powerful and widespread. The underlying energy can be harnessed for good or allowed to express itself in ultimately unproductive ways. Residents of the Great Lakes basin, for example, have long feared that water users from other states will seek to acquire "their" lake water, exporting it to arid regions of the country. Basin residents have channeled that emotional energy into the development of the Law of the Lakes—a series of treaties, compacts, agreements, state and federal legislation, and common law designed to regulate and protect Great Lakes resources. To date, those documents have struck a precarious balance between the impulses of protectionism (regulating outsiders) and sustainability (regulating water use by basin residents, as well as by outsiders). Resolving the tension has taken on a new urgency, as the Great Lakes states and provinces recently agreed to develop a new and consistent series of state and provincial water laws.

This Article has a practical goal: to convince state lawmakers of the need to regulate in a comprehensive and evenhanded manner, avoiding short-sighted fixes or politically appealing shortcuts. To accomplish that

^{1.} In one well-known dispute that reached the United States Supreme Court, one state (Nebraska) prohibited two farmers from moving groundwater to an adjoining state (Colorado), even though the farmers were Nebraska residents who jointly owned a farm that straddled the Nebraska-Colorado border. See Sporhase v. Nebraska, 458 U.S. 941 (1982).

^{2.} See generally Christine A. Klein, The Environmental Commerce Clause, 27 HARV. ENVTL. L. REV. 1 (2003) (incorporating the author's own observations based upon photographs and radio broadcasts). See also Michigan Citizens for Water Conservation v. Nestlé Waters N. Am., Inc., 709 N.W.2d 174 (Mich. Ct. App. 2005) (appeal pending).

^{3.} See generally A. DAN TARLOCK ET AL., WATER RESOURCE MANAGEMENT: A CASEBOOK IN LAW AND PUBLIC POLICY 1014-17 (5th ed. 2002).

^{4.} See infra Part II.B.

^{5.} See infra Part II.B.2-3.

goal, Part I focuses upon another region of the country—the Colorado River Basin—where residents have also undertaken the task of managing a water system that includes two nations (the United States and Mexico) and numerous states. Learning from the successes and failures of the resultant Law of the River, this Article derives guiding principles for the emerging Law of the Lakes. Part II makes a crucial distinction between protectionism and true sustainability, examining the existing Lakes documents for evidence of each. Part III offers a description of six essential components of any sustainable state water code and provides references to a menu of draft legislative provisions available for adoption (with or without modification) by the Great Lakes states. This Article concludes with the hope that the Great Lakes states and provinces realize the tremendous opportunity now facing them and take full advantage by developing a sustainable body of water law.

I. THE LAW OF THE LAKES: AN OPPORTUNITY

A. The Growing Influence of Regional Water Law

Historically, state law has governed most aspects of the allocation of water rights among competing uses. The federal government consistently exhibited forbearance in this area, at first through acquiescence, and later through affirmative assurances of federal deference to state water law. The eastern states—including the eight states bordering the Great Lakes—have followed the common law doctrine of *riparianism*. One bedrock assumption of traditional riparianism is that water should be used in close proximity to its source, whether surface stream or underground aquifer. More recently, states have begun to supplement (or replace) their case-by-case, after-the-fact, judge-made common law with comprehensive, prospective, legislatively enacted water codes. In the west, such statutes began to appear

^{6.} See Irwin v. Phillips, 5 Cal. 2d 144 (1855) (deciding water dispute between two miners on federal public lands according to state principle of prior appropriation).

^{7.} See California Or. Power Co. v. Beaver Portland Cement Co., 295 U.S. 142 (1935) (examining federal legislation dating from 1866 and later, and asserting that the authority and intent of Congress to vest power over water allocation in the states "cannot be doubted").

^{8.} This assumption is embodied in numerous riparian doctrines, including the principle that "[r]iparian rights to use water attach only to riparian land [touching a natural watercourse]," the watershed limitation (providing under common law that "any use of water on land outside the watershed (the area draining into the waterbody) of the source of supply was unreasonable per se and actionable even if it caused no injury"), and the on-tract limitation ("enjoin[ing] water use on parcels not touching the [source] waterbody, even those owned by a riparian [landowner] within the watershed, regardless of actual harm to the plaintiff"). DAVID H. GETCHES, WATER LAW IN A NUTSHELL 23, 51-52 (3d ed. 1997).

as early as the nineteenth century.⁹ In contrast, the water legislation of the eastern states tends to be of a more recent vintage¹⁰ and is generally narrower in scope.

State water *allocation* law is necessarily incomplete. Although the legal mind may recognize an artificial distinction between water quantity (allocation) and water quality (pollution), nature does not. Similarly, there is no meaningful ecological basis supporting the common legal distinction between water and the lands (and resources) it sustains. Accordingly, state water allocation law became increasingly supplemented by other laws, such as the Clean Water Act¹¹ and the Endangered Species Act.¹² For reasons of pragmatism, history, and politics, this modern complement of extra-allocation laws is largely federal in nature.¹³

State and federal law affecting water also became increasingly placespecific, reflecting the unique geography, geology, experiences, and challenges of various regions throughout the nation.¹⁴ Most prominent among these place-based regimes, perhaps, is the "law of the river," a mélange of laws affecting the Colorado River as it flows from its headwaters in Colorado to the Sea of Cortez in Mexico, collecting the waters of seven states along its journey.¹⁵ Equally important is the law of the Columbia River Basin in the Pacific Northwest.¹⁶ Now the Great Lakes states and provinces

^{9.} See, e.g., TARLOCK ET AL., supra note 3, at 296 (describing statutory water adjudication procedure established under Wyoming territorial law prior to statehood). See also Wyoming Hereford Ranch v. Hammond Packing Co., 236 P. 764 (Wyo. 1925) (considering permit system enacted in 1890 at first session of Wyoming legislature after achieving statehood).

^{10.} See, e.g., Florida Water Resources Act of 1972, FLA. STAT. § 373.012 (2006); see also Robert H. Abrams, Charting the Course of Riparianism: An Instrumentalist Theory of Change, 35 WAYNE L. REV. 1381 (1989); Robert H. Abrams, Water Allocation by Comprehensive Permit Systems in the East: Considering a Move Away from Orthodoxy, 9 VA. ENVIL. L.J. 255 (1990); Robert H. Abrams, Replacing Riparianism in the Twenty-First Century, 36 WAYNE L. REV. 93 (1989).

^{11.} See 33 U.S.C. §§ 1251-1387 (2000).

^{12.} See 16 U.S.C. §§ 1531-44 (2000). See also CHRISTINE A. KLEIN ET AL., NATURAL RESOURCES LAW: A PLACE-BASED BOOK OF PROBLEMS AND CASES 882-918 (2005) (discussing the federal overlay to state water law, including the federal reserved water rights doctrine, the Dormant Commerce Clause, the Clean Water Act, and the Endangered Species Act).

^{13.} KLEIN ET AL., *supra* note 12, at 882-83.

^{14.} *Id.* at 918-29 (considering "place-based regimes" affecting watershed management in the Colorado River Basin, the Pacific Northwest, the Great Lakes Region, and the Florida Everglades).

^{15.} See infra Part I.C (discussing the "law of the river" and the lessons it may provide to the Great Lakes states and provinces).

^{16.} See generally Michael C. Blumm & Joshua D. Smith, Protecting the Columbia River Gorge: A Twenty-Year Experiment in Land-Use Federalism, 21 J. LAND USE & ENVIL. L. 201 (2006); Michael C. Blumm, The Amphibious Salmon: The Evolution of Ecosystem Management in the Columbia River Basin, 24 ECOLOGY L.O. 653 (1997).

have the opportunity to self-consciously fashion a body of law suitable to the unique aquatic ecosystem over which their stewardship extends. Drawing upon existing examples from the Colorado River Basin, the Columbia River Basin, and beyond, these states and provinces have the chance to develop a model that will protect an invaluable resource and guide those who follow.

B. "The Law of the Lakes": More than Rhetoric

What is in a name? This Article develops the notion of the "Law of the Lakes," a concept that transcends mere rhetoric. It calls for an effort to build a comprehensive and sustainable body of water law that is both local and global in orientation. First, looking inward, the intimate reference to "the Lakes" is intended to be parochial in the very best sense of the word. It serves as a reminder of the region's passionate identification with the freshwater gems within its midst and of its legal tradition of using water as close to its source as possible so that return flows replenish the watershed.¹⁷ At the same time, it invites regional introspection, asking Great Lakes residents to take a hard look at how their own water use may threaten the ecosystem, just as surely as that of thirsty water exporters. 18 Looking outward, the "Law of the Lakes" is deliberately evocative of "the Law of the River" and other parallel enterprises. As such, the phrase embodies a plea for Great Lakes lawmakers to learn from the past and from neighboring regions, in an area of the law where willful ignorance and rejection of extraregional precedent is far too common.¹⁹

The magnitude of the present opportunity cannot be overstated. The Law of the Lakes is currently in a state of fomentation, as demonstrated most recently by the completion of two regional agreements in December 2005.²⁰ Among other things, these agreements call for the states and provinces bordering the Great Lakes to enact laws that manage and regulate water uses in accordance with a consistent, conservation-oriented standard.²¹ These agreements provide a catalyst of enormous significance, potentially leading to the development (or refinement) of statutory water law in eight of the fifty states, and in two of the Canadian provinces. This provides an op-

^{17.} See supra note 8 and accompanying text.

^{8.} See infra Part III.A.

^{19.} Western judges have emphatically rejected eastern riparianism and the lessons it may offer to the west. See, e.g., City of Thornton v. City of Fort Collins, 830 P.2d 915 (Colo. 1992) (taking care to distinguish western instream water right from eastern riparianism). Similarly, this writer has heard numerous eastern lawyers disparage the western system of "prior appropriation," often with little understanding of the nuances of the system and the lessons it may offer to the east.

^{20.} See infra Part II.B.2-3.

^{21.} Id.

portunity of historic proportions but only if the states and provinces are willing to avoid the temptation common to all water legislators—acceptance of a false notion of regional pride that blinds them to the wisdom developed in other regions and in other times. As relative latecomers to the enterprise of water regulation, Great Lakes lawmakers have at their disposal over a century of legislative, judicial, and academic thought providing examples of approaches to follow and mistakes to avoid. Furthermore, many of the Great Lakes states are writing water legislation on virtually clean slates. Michigan, for example, persisted as a pure riparian common law jurisdiction throughout nearly all of the twentieth century.²² As such, it now has a unique opportunity to fashion anew a comprehensive modern water code.

C. "The Law of the River": Lessons for the Lakes

A brief overview of the Law of the River may provide valuable lessons for the evolving Law of the Lakes. The enormous drainage basin of the Colorado River—some 245,000 square miles—collects water from four "upper division states" (Colorado, New Mexico, Utah, and Wyoming) and three "lower division" states (Arizona, California, and Nevada) before terminating in Mexico.²³ At a midpoint marker at Lee Ferry, Arizona, the river carries an average volume of 14.2 million acre feet per year.²⁴

To manage this trans-boundary resource, the seven basin states entered into the Colorado River Compact of 1922.²⁵ The compact apportions the river system "in perpetuity," recognizing in each basin (upper and lower) the right to an annual consumptive use of 7.5 million acre-feet.²⁶ As a procedural matter, the apportionment is accomplished by imposing an obligation on the upper basin states to deliver 7.5 million acre-feet to the lower basin at Lee Ferry.²⁷ Numerous other documents contribute to the Law of the River, addressing such issues as the rights of Mexico and the subdivision of upper- and lower-basin entitlements among the states within each sub-basin.²⁸

^{22.} See infra Part III.D.

^{23.} In comparison, the Great Lakes Basin drains 201,460 square miles of land. Great Lakes Fact Sheet, U.S. ENVIRONMENTAL PROTECTION AGENCY, http://www.epa.gov/glnpo/factsheet.html.

^{24.} See James S. Lochhead, An Upper Basin Perspective on California's Claims to Water from the Colorado River, Part I: The Law of the River, 4 U. DENV. WATER L. REV. 290, 317-18 (2001).

^{25.} Colorado River Compact of 1922, Colo. Rev. Stat. § 37-61-101.

^{26.} Id. § 37-61-101, art. III(a).

^{27.} In particular, the compact requires, "The states of the Upper Division will not cause the flow of the river at Lee Ferry to be depleted below an aggregate of 75,000,000 acre feet for any period of ten consecutive years" Id. § 37-61-101, art. III(d).

^{28.} See Lochhead, supra note 24, at 291-92 n.5.

Reviewing more than a century of accumulated experience, Colorado River observers identified several important lessons for regional water managers.²⁹ First, it is essential to have an accurate inventory of the water resources to be managed or divided.³⁰ Colorado River negotiators, unfortunately, divided up a larger "pie" than that provided by nature.³¹ Second, managers should not leave difficult issues for a later resolution.³² Third, it is critical to anticipate changing social values and water uses, such as growing urban demands, environmental preservation, and aquatic recreation.³³ Finally, the pressure for interbasin water transfers should be adequately anticipated and addressed.³⁴ The unique structure of the Law of the River essentially dividing a river between upstream and downstream states—may have no direct counterpart with the non-flowing Great Lakes. Moreover, the general western bias in favor of transbasin diversions may be inapplicable to the Lakes. Nevertheless, the broader lesson remains that interbasin transfers should be given careful consideration and subjected to nuanced regulation capable of evolving with social norms.³⁵

II. FROM PROTECTIONISM TO SUSTAINABILITY

A. Moving Beyond Protectionism

As a landmark policy, the Law of the Lakes consistently articulates sustainability as its fundamental goal. To appreciate how remarkable this is, consider the concept of maximum utilization, an alternative philosophy prevalent in many western states.³⁶ The former generally emphasizes the

^{29.} Id. at 316-30 (deriving lessons from implementation of the Law of the River).

^{30.} See id. at 317-20. For an application to the Great Lakes, see infra Part III.B.

^{31.} Lochhead, *supra* note 24, at 317 (observing that Colorado River negotiators assumed an average annual water supply of 18-21 million acre-feet, but that since 1922 the relevant flow has averaged only 14.2 million acre-feet).

^{32.} Id. at 320-21 (noting that Colorado River negotiators failed to early address the entitlements of Mexico and Native Americans). For an application to the Great Lakes, see *infra* Part III.D.

^{33.} See Lochhead, supra note 24, at 321-22 (describing negotiators' failure to anticipate the dramatic growth of Las Vegas, Los Angeles, and Phoenix, as well as emerging environmental and recreational values). For an application to the Great Lakes, see infra Part III.C.

^{34.} See Lochhead, supra note 24, at 322-29. Lochhead lists as an error the failure to provide a legal mechanism for large-scale interbasin transfers, concluding that this oversight "allows the economic and political muscle of the Lower Division States to override the future of the Upper Division States" and that it "allows the Lower Basin to continue economic development at the expense of the Upper Basin." *Id.* at 324.

^{35.} See generally infra Part III.F.

^{36.} See, e.g., Fellhauer v. People, 447 P.2d 986, 994 (Colo. 1968) (declaring that "[w]e have known for a long time that the doctrine was lurking in the backstage shadows as a

ecosystem benefits of water in place, whereas the latter emphasizes the human benefits of diverting water from its natural source.³⁷ In reality, the dichotomy between *sustainability* and *maximum utilization* is not as stark as it appears: *sustainability* states certainly use water, just like many *maximum utilization* states implement ecosystem protection measures. But as a philosophical matter, the Great Lakes region's focus upon sustainability is path breaking.

Sustainability is a deceptively complex idea, containing within it the distractor of protectionism. When implementing the regional goal of sustainability—as agreed to in the Lakes documents—states and provinces must take care not to substitute the facile approach of protectionism for the harder work of sustainability. Nevertheless, the protectionist impulse serves two useful purposes. First, it can serve as a political rallying cry that unites a region against over-exploitation of its aquatic resources. In Michigan, for example, the southwestern states' perceived desire to import Great Lakes water into their region triggered an innovative highway billboard campaign. Featuring a map of Michigan surrounded by caricatures of a Texas cowboy. a Utah skier, a California surfer, and a New Mexico man wearing a large sombrero—all guzzling Great Lakes water through giant straws—the billboards proclaimed, "Back Off Suckers, Water Diversion . . . The Last Straw."38 As a second valuable marker on the road to sustainability, protectionism may nudge a region toward an introspective examination of its own exploitative practices, perhaps culminating in legislation for the sustainable management of water. For example, just a few years after its billboard campaign, Michigan enacted its first statutory water law.³⁹

Part II.B considers the various treaties, compacts, agreements, federal statutes, and state laws that cumulatively comprise the Law of the Lakes. The analysis will identify specific provisions that are protectionist in nature, as well as particular sections that move forward toward the broader goal of sustainability.

B. The Lakes Documents Examined

The Law of the Lakes can be diagrammed in the shape of a pyramid. The foundational document is the 1909 Boundary Waters Treaty. The pyramid's pointed top features the water codes of individual states and

result of the accepted, though oft violated, principle that the right to water does not give the right to waste it").

^{37.} In fact, one strand of western thought views as wasteful water that flows in its natural channel, undiverted for human use. See Christine A. Klein, The Constitutional Mythology of Western Water Law, 14 VA. ENVTL. L. REV. 343, 357-59 (1995).

^{38.} See KLEIN ET AL., supra note 12, at 924-27 (reproducing photograph of highway billboard).

^{39.} See infra note 109 and accompanying text.

provinces, each drawing inspiration from the underlying international and interstate enactments. In chronological order, the Law of the Lakes includes the following legal documents:

- (1) Boundary Waters Treaty of 1909;40
- (2) Great Lakes Basin Compact of 1968;41
- (3) Great Lakes Charter of 1985;42
- (4) Water Resources Development Act of 1986 (as amended in 2000);⁴³
- (5) Great Lakes Charter Annex of 2001;44
- (6) Great Lakes-St. Lawrence River Basin Water Resources Compact of 2005 ("2005 Compact");⁴⁵ and
- (7) Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement of 2005 ("2005 Agreement").46

For convenience, the Lakes documents can be placed into five general categories, as discussed below.

1. International Treaty Provisions

The Boundary Waters Treaty of 1909 establishes a process for the United States and Canada to resolve water disputes.⁴⁷ In particular, the treaty creates the International Joint Commission (IJC), giving it authority

^{40.} Boundary Waters Treaty, Jan. 11, 1909, United States-Great Britain (for Canada), 36 Stat. 2248 (1909).

^{41.} Great Lakes Basin Compact, Pub. L. No. 90-419, 82 Stat. 414 (1968) [hereinafter 1968 Great Lakes Compact].

^{42.} The Great Lakes Charter: Principles for the Management of Great Lakes Water Resources (Feb. 11, 1985), http://www.cglg.org/projects/water/docs/GreatLakesCharter.pdf [hereinafter 1985 Great Lakes Charter].

^{43. 42} U.S.C. § 1962d-20 (2006) ("Prohibition on Great Lakes diversions.").

^{44.} The Great Lakes Charter Annex: A Supplementary Agreement to the Great Lakes Charter (June 18, 2001), http://www.cglg.org/projects/water/docs/GreatLakesCharter Annex.pdf [hereinafter 2001 Great Lakes Annex].

^{45.} Great Lakes-St. Lawrence River Basin Water Resources Compact (Dec. 13, 2005), http://www.cglg.org/projects/water/docs/12-13-05/Great_Lakes-St_Lawrence_River_Basin_water_resources_Compact.pdf [hereinafter 2005 Great Lakes Compact].

^{46.} Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (Dec. 13, 2005), http://www.cglg.org/projects/water/docs/12-13-05/Great_Lakes-St_Lawrence_River_Basin_Sustainable_Water_Resources_Agreement.pdf [hereinafter 2005 Great Lakes Agreement].

^{47.} See Boundary Waters Treaty, supra note 40. Notably, such water disputes may arise at any point along the United States-Canada border, including numerous watersheds in addition to the Great Lakes Basin.

to recommend solutions to bi-national disputes.⁴⁸ However, this authority is subject to significant political constraints: both the United States (through a two-thirds vote of the Senate) and Canada must submit a reference to the IJC before it acquires jurisdiction to render a binding arbitral decision.⁴⁹

At first glance, the treaty appears to promote sustainability, requiring IJC approval for water uses or diversions "affecting the natural level or flow of boundary waters on the other side of the [border]." Upon closer examination, however, the treaty has a strong protectionist underpinning. The treaty excludes from its coverage all waters—both surface and ground water—that are tributary to the lakes, rivers, and connecting waterways along the international boundary. Moreover, Lake Michigan falls outside the treaty's purview because the international border does not pass through it. As a result, both nations remain free under the treaty to engage in unsustainable water practices adversely affecting the Great Lakes Basin or ecosystem, provided that the affected waters do not fall within the treaty's limited definition of "boundary waters."

2. Interstate Compacts

The Great Lakes states have negotiated two interstate compacts. Under the Constitution, such compacts require congressional consent.⁵³ Consent has been obtained for the first compact⁵⁴ and is currently being sought for the second.⁵⁵

The first interstate instrument is the Great Lakes Basin Compact of 1968, approved by Congress in limited form on July 24, 1968.⁵⁶ The compact creates the Great Lakes Commission, which has the authority to gather data and make non-binding recommendations on water development, use, and conservation.⁵⁷ Signatories to the compact—including all states and

^{48.} Id. art. IX, 36 Stat. at 2452.

^{49.} Id. art. X, 36 Stat. at 2452-53.

^{50.} Id. art. III, 36 Stat. at 2449-50.

^{51.} Id. Preliminary Article., 36 Stat. at 2448-49.

^{52.} But see id. art. I, 36 Stat. at 2449 (subjecting Lake Michigan to certain treaty rights of free navigation).

^{53.} U.S. CONST. art. I, § 10, cl. 3.

^{54.} See infra note 56 and accompanying text.

^{55.} See infra note 61 and accompanying text.

^{56.} Congress consented to the compact but with limitations aimed primarily at preserving the sovereign prerogatives of the United States. See 1968 Great Lakes Compact, art. IX, supra note 41. (providing, inter alia, that "[t]he consent herein granted does not extend to ... provisions of ... the compact which purpose to authorize recommendations to, or cooperation with, any foreign or international governments, political subdivisions, agencies or bodies").

^{57.} Id., art. VI(N) (providing that "no action of the commission shall have the force of law in, or be binding upon, any party state [or province]").

provinces bordering the Great Lakes except New York⁵⁸—simply agree to "consider" the recommendations of the Commission.⁵⁹ Because the Commission's recommendations are non-binding, it is difficult to classify the compact as promoting either protectionism or sustainability. Moreover, its purposes neither forbid water use by others (suggesting protectionism), nor limit the uses of compact signatories (advancing sustainability). Rather, the compact asserts one if its purposes is to promote "through means of joint or cooperative action . . . the orderly, integrated, and comprehensive development, use, and conservation of the water resources of the Great Lakes Basin."

A second interstate compact was completed in 2005, the Great Lakes—St. Lawrence River Basin Water Resources Compact ("2005 Compact"), executed by the eight Great Lakes States. As of the end of 2006, Congress has not approved this agreement. The compact creates the Great Lakes—St. Lawrence River Basin Water Resources Council, composed of the governors of the parties. Compact signatories agree to develop and maintain a water resources inventory and to implement a water conservation and efficiency program. More importantly, the parties agree to manage new or increased water withdrawals, consumptive uses, and diversions in accordance with a common decision-making standard set forth under the compact, to be incorporated into state regulatory programs.

The compact begins with sweeping language of sustainability. For example, the "findings" section asserts:

The Parties have a shared duty to protect, conserve, restore, improve and manage the renewable but finite Waters of the Basin for the use, benefit and enjoyment of all their citizens, including generations yet to come. The most effective means of protecting, conserving, restoring, improving and managing the Basin Waters is through the joint pursuit of unified and cooperative principles, policies and programs mutually agreed upon, enacted and adhered to by all Parties.⁶⁵

Similarly, the purposes of the compact include "act[ing] together to protect, conserve, restore, improve and efficiently manage the [waters and natural resources of the basin] . . . because current lack of full scientific certainty

^{58.} Members include the states of Illinois, Indiana, Michigan, Minnesota, Ohio, Pennsylvania, and Wisconsin, and the provinces of Ontario and Quebec. *Id.* art. II.

^{59.} Id. art. VII.

^{60.} *Id.* art. I(1).

^{61. 2005} Great Lakes Compact, supra note 45.

^{62.} Id. § 2.2 (specifying that governors shall serve ex officio).

^{63.} Id. § 4.1 (agreeing to maintain an inventory); Id. § 4.2 (agreeing to implement conservation and efficiency programs).

^{64.} Id. § 4.3 (committing to manage water resources under state permit program); Id. § 4.10 (committing to impose state regulatory program within five years); Id. § 4.11 (agreeing to abide by common decision-making standard).

^{65.} *Id.* § 1.3(1)(f).

should not be used as a reason for postponing measures to protect the Basin Ecosystem."⁶⁶ Beyond the findings and purpose, the compact's substantive provisions incorporate innovative sustainability principles into water allocation decisions. For example, the states agree to manage water use to "ensure" that withdrawals will not cause significant impacts to regulated waters and dependent natural resources, "determined on the basis of significant impacts to the physical, chemical, and biological integrity" of source watersheds.⁶⁷ Moreover, the common decision-making standard seeks to ensure that regulated water uses will not cause "significant individual or cumulative adverse impacts to the quantity or quality" of regulated waters, dependent natural resources, and source watersheds.⁶⁸

In contrast to the broadly stated commitment to sustainability, the primary operative provision is arguably protectionist in effect. The core of the compact is a one-sentence provision easily overlooked in the middle of the document, asserting "[a]ll New or Increased Diversions are prohibited, except as provided for in this Article."69 Importantly, the prohibition applies to "diversions," but not "withdrawals," a distinction foreign to prevailing standards of water management.⁷⁰ In operation, the diversion-withdrawal distinction may protectively restrict the water usage of nonresidents more than that of resident citizens and businesses. The compact prohibits diversions, defined to include only large-scale movements of water either outside the Great Lakes-St. Lawrence Basin entirely or from one Great Lake to another.⁷¹ In effect, this diversion prohibition is likely to affect outsiders more than basin residents. Notably, the diversion definition provides an exception for products that are manufactured inside the basin for sale elsewhere, 73 arguably constituting a protectionist measure favorable to in-basin manufacturers. The compact contains an additional diversion exemption apparently tailored to protect the bottled water industry—that excludes wa-

^{66.} Id. § 1.3(2)(a).

^{67.} *Id.* § 4.10(1). *Compare* the Federal Water Pollution Control Act, 33 U.S.C. § 1251(a) (2000) (asserting that statutory objective is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters").

^{68. 2005} Great Lakes Compact, § 4.11(2), supra note 45.

^{69.} Id. §§ 4.8, .15.

^{70.} *Id.* § 1.2.

^{71.} Id.

^{72.} The definition provides that "diversion" means a transfer of water from the Great Lakes-St. Lawrence 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 water course, a tanker ship, tanker truck or rail tanker " Id.

^{73.} The term "diversion" does not apply to water "that is used in the Basin or a Great Lake watershed to manufacture or produce a Product that is then transferred out of the Basin or watershed." *Id.*

ter removed from the basin in containers 5.7 gallons or less.⁷⁴ In contrast to prohibited diversions, largely unregulated *withdrawals* are defined as "the taking of water from surface water or groundwater,"⁷⁵ a definition that probably applies primarily to the water uses of basin residents.

3. Interstate Agreements

The basin states and provinces have entered into two interstate agreements, the Great Lakes Charter of 1985⁷⁶ and the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement of 2005 ("2005 Agreement").⁷⁷ Both are simply good-faith agreements, not designed to incorporate the congressional approval necessary to elevate their status to that of interstate compact or international treaty. Both can be understood as evolutionary building blocks, culminating in the potentially-binding 2005 Compact.⁷⁸ As evolutionary pieces, both documents embody many of the same protectionist and sustainability provisions later incorporated into the 2005 Compact discussed in the previous subsection.⁷⁹

As a precursor to the 2005 Compact, the eight states and two provinces of the basin signed the Great Lakes Charter, as amended in 2001.80 Signatories agree to three main commitments, keyed to the volume of water potentially at stake.81 First, for withdrawals greater than 100,000 gallons per day, the parties commit to the gathering and reporting of data.82 Second, for diversions or consumptive uses exceeding two million gallons per day, the parties commit to enact binding management regulations.83 Finally, for new or increased diversions or consumptive uses of water in excess of five million gallons per day, the charter establishes a prior notice and consultation mechanism.84 The charter was clearly triggered by a protectionist impulse, executed as a defensive measure to 1980s proposals to export Great

^{74.} Id. § 4.12(10) (applying to bulk water transfers). The typical office water cooler is about five gallons.

^{75.} Id. § 1.2.

^{76. 1985} Great Lakes Charter, supra note 42.

^{77. 2005} Great Lakes Agreement, supra note 46.

^{78.} See supra Part II.B.2.

^{79.} See generally, Noah D. Hall, Toward a New Horizontal Federalism: Interstate Water Management in the Great Lakes Region, 77 U. Colo. L. Rev. 405, 424-26 (2006); TARLOCK ET AL., supra note 3, at 1014-17 (presenting the Great Lakes as a case study in diversion policy making).

^{80. 1985} Great Lakes Charter, supra note 42.

^{81.} Id. at 1-2.

^{82.} Id. at 6.

^{83.} *Id*.

^{84.} *Id.* at 4.

Lakes water to central plains states (to replenish the Ogallala aquifer) and to western states and provinces.⁸⁵

As a complement to the 2005 Compact, ⁸⁶ the eight Great Lakes states concurrently executed the substantially similar 2005 Agreement, ⁸⁷ with the addition of Ontario and Quebec as signatories. Lacking a mechanism for congressional approval, the agreement has no legal force.

4. Federal Legislation

The most concise Lakes document is probably the most powerful. Through the Water Resources Development Act of 1986, Congress granted each Great Lakes governor the authority to veto new out-of-basin diversions. Congress stated simply:

No water shall be diverted . . . from any portion of the Great Lakes within the United States, or from any tributary within the United States of any of the Great Lakes, for use outside the Great Lakes basin unless such diversion . . . is approved by the Governor of each of the Great Lake States.⁸⁸

The provision is clear protectionism that would violate the dormant commerce clause absent congressional approval.⁸⁹ Such congressional enabling of state protectionism, however, is counterbalanced to some extent by the congressional sustainability goal, declaring that "the Great Lakes need to be carefully managed and protected to meet current and future needs within the Great Lakes basin and Canadian provinces"⁹⁰

^{85.} TARLOCK ET AL., supra note 3, at 1015 (describing 1980s "plans to divert water from Lake Superior to reduce overdraft from the Ogallala aquifer in the central plains states, and a Canadian scheme to take water from James Bay into Lake Huron for export to western provinces and states").

^{86.} See supra Part II.B.2.

^{87. 2005} Great Lakes Agreement, supra note 46.

^{88. 42} U.S.C. § 1962d-20(d) (2000). In 2000, the statute was amended to extend the prohibition to the "export" as well as the "diversion" of water. Water Resources Development Act of 2000, Pub. L. No. 106-541, § 504, 114 Stat. 2572, 2644-45. In addition, the 2000 amendment added a provision declaring the purpose of Congress

to encourage the Great Lakes States, in consultation with the Provinces of Ontario and Quebec, to develop and implement a mechanism that provides a common conservation standard embodying the principles of water conservation and resource improvement for making decisions concerning the withdrawal and use of water from the Great Lakes Basin....

⁴² U.S.C. § 1962d-20(b)(2).

^{89.} TARLOCK ET AL., *supra* note 3, at 1016-17.

^{90. 42} U.S.C. § 1962d-20(a)(2) (2000).

5. State Water Codes

As illustrated in the previous subsections, the Lakes documents fail to provide a legally binding, comprehensive system for the sustainable management of water resources within the basin. In many instances, laudable assertions in support of sustainability are but a thin veneer obscuring attempts to hoard water for the benefit of basin residents.

The hard work of achieving sustainable water use falls to the individual states as they enact legislation to manage the water resources within their jurisdictions. These state water codes will sit at the pinnacle of the pyramid of Lakes documents described at the beginning of this section. If the Law of the Lakes is sincerely aimed at the promotion of sustainability, then states must regulate *all* water withdrawals, regardless of user;⁹¹ amount; the size of container in which water is transported;⁹² the jurisdiction that reaps the economic profits of water use;⁹³ and exclusive of politically-motivated exemptions for favored actors.⁹⁴

III. SIX ESSENTIAL COMPONENTS OF SUSTAINABLE WATER LAW

As a useful metaphor, sustainable state water law may be compared to the family budget. Recognizing the inefficiency of reinventing budgeting principles on a family-by-family basis, many adhere to well-established conventions, using pre-printed budget forms freely available over the Internet. Similarly, efficient state water practice would look to existing laws in neighboring jurisdictions. Even better, states might look to model water codes—such as the American Society of Civil Engineers' Regulated Riparian Model Water Code 95—drawing from a menu of draft legislative provisions incorporating the collective wisdom of academics, attorneys, citizens, engineers, and government water administrators. Inexplicably, the Great Lakes states have failed to take full advantage of these types of resources. Beyond procedure, the family budget also provides a homely metaphor for the substance of the six essential components of sustainable state water law, as explained below.

^{91.} See 2005 Great Lakes Compact § 1.2, supra notes 45, 69-75 and accompanying text (defining "diversion" and "withdrawal" and explaining how the compact's diversion prohibition will affect outsiders more than basin residents).

^{92.} See id. § 4.12(10) (stating the compact's diversion exemption applies to bulk water transfers).

^{93.} See id. § 1.2 (explaining that the term "diversion" does not apply to water "that is used in the Basin or a Great Lake watershed to manufacture or produce a Product that is then transferred out of the Basin or watershed").

^{94.} See id. and discussion supra Part II.B.2.

^{95.} AMERICAN SOCIETY OF CIVIL ENGINEERS, REGULATED RIPARIAN MODEL WATER CODE (2004) [hereinafter Model Riparian Code].

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A. Educate Citizens: We Have Met the Enemy and He Is Us

As an initial matter, it might be useful to recall a 1971 segment from the comic strip, Pogo. 96 In the wake of the first Earth Day, cartoonist Walt Kelly placed his characters in a forest, gingerly picking their barefoot way over a forest floor that obviously was used as an unofficial dump site, while they made the following observations:

Porkypine: Ah, Pogo, the beauty of the forest primeval gets me in the heart.

Pogo: It gets me in the feet, Porkypine.

Porkypine: It is hard walkin' on this stuff.

Pogo: Yep, son, we have met the enemy and he is us.97

Just as the Pogo characters acknowledged their own responsibility for the degradation of the forest, the Great Lakes states and provinces also must acknowledge their own contribution to unsustainable water practices. As one Great Lakes observer stated:

Ironically, Michigan residents have long feared that it would be the parched people of distant lands like Arizona, California, and Asia that would build gigantic pipelines and siphon off the Great Lakes. But, plainly, the most immediate challenge facing the region's waters is much closer to home. Instead of scrutinizing and managing current demand, basin communities continually rely solely on finding new sources of water, adding more pumps, constructing ever-larger pipes and purification stations, and withdrawing ever more water. 98

Threatened water export by outsiders may be useful to galvanize the political resolve to enact state water codes, 99 but it is the daily, unremarkable, small-scale, cumulative uses by basin residents themselves that pose the greatest threat to sustainability. 100

B. Inventory Supply and Demand

Just as financial budgets must make a reckoning of income and expenses, the Great Lakes states and provinces must conduct an inventory of available sources of water and specific consumptive uses. The political

See Walt Kelly, Pogo: We Have Met the Enemy and He Is Us, Earth Day Poster (1971), http://en.wikipedia.org/wiki/Pogo (last visited Mar. 26, 2007).

^{97.}

Andy Guy, Waste Not, Want Not, Bond Not: Even When Water's Plentiful, Conserving it Saves Plenty of Tax Dollars, in Michigan Land Use Institute, Water Works 6-9 (May 2005), available at http://mlui.org/print.asp?fileid=16852.

^{99.} See supra notes 38-39 and accompanying text.

See generally Great Lakes Commission, Annual Report of the Great LAKES REGIONAL WATER USE DATABASE REPOSITORY: REPRESENTING 2002 WATER USE DATA IN GALLONS 15-17, Aug. 10, 2005, available at http://glc.org/wateruse/database/pdf/1beginning-gallons-02.pdf.

dynamics of data collection are particularly interesting. In Michigan, for example, users have been reluctant, even recalcitrant, in their compliance with reporting requests from the Michigan Department of Environmental Quality (DEQ). As recently as 2003, the DEQ made targeted efforts to cajole its citizens into reporting their water uses. Under the heading of "Michigan Water Use Reporting Program," for example, the DEQ website played to protectionist fears, asserting that water use information "provides an environmental baseline for managing water resources in a more integrated manner and strengthens the legal basis for opposing unwarranted water diversions of Great Lakes water to other regions of the country." 101

Bowing to this pressure, regional reporting expectations are quite low. For example, the 2005 Compact calls for basin states to develop and maintain a water resources inventory within five years. However, states may report and share data on an aggregated basis by type of use, without identifying specific users. Moreover, data disclosure is further impeded by confidentiality requirements. 104

C. Establish Minimum Stream Flows and Lake Levels

As a measure of fiscal discipline, families generally set aside a specific monthly sum for basic life necessities before spending income for any other purposes. Translating this "necessities first" principle into water practice, some states set aside a dedicated amount of water for environmental preservation, making that water unavailable for other purposes. Most commonly, this conservation budget is expressed in terms of minimum stream flows (or instream flows) and minimum lake levels. 105 It may also be expressed as a reservation of water for ecosystem preservation, thereby removing certain waters from the allocation pool. 106 Challenges remaining for

^{101.} Michigan Department of Environmental Quality, Michigan Water Use Reporting Program, http://www.michigan.gov/deq/0,1607,7-135-3313_3677_3704-72931--,00.html (last visited Feb. 13, 2007) (emphasis added).

^{102. 2005} Great Lakes Compact § 4.1(1), supra note 45.

^{103.} Id. § 4.1(5).

^{104.} Id. § 8.3.

^{105.} See MODEL RIPARIAN CODE, supra note 95, § 1R-1-11 (providing that states shall preserve minimum flows and levels "in all water sources as necessary to protect the appropriate biological, chemical, and physical integrity of water sources by reserving such waters from allocation"); id. § 3R-2-01 (providing that minimum flows and levels are not subject to allocation and that "[e]very person exercising a water right pursuant to this Code is required to protect the prescribed minimum flows or levels when exercising such right"); id. § 3R-2-03 (allowing allocation of waters normally protected as minimum flows and levels under limited water emergency circumstances).

^{106.} *Id.* (providing commentary). See also FLA. STAT. § 373.223(4) (2005) (providing that the water governing board or body "by regulation, may reserve from use by permit applicants, water in such locations and quantities, and for such seasons of the year, as in its

such environmental sustainability programs include the protection of groundwater levels and wetlands supply and dedicating more than a minimal amount of water for ecosystem sustainability.

D. Create a Comprehensive Permit System

In an ideal family budget, money is spent each month only after the annual income is determined and after basic life expenses have been paid. In that same ideal system, every penny available for spending is designated in advance for a particular type of expense. This same logic applies to state water law, where permits to individual users should be granted only after the jurisdiction carefully identifies its annual renewable water supply, and after adequate water is set aside for the sustenance of the watershed ecosystem. The Model Riparian Code suggests development of a comprehensive, intermediate- and long-term water allocation plan¹⁰⁷ and the establishment of a comprehensive permit system with very limited exemptions.¹⁰⁸

In practice, this logical sequence of events is not always followed, either because the state fails to develop a modern water inventory, or because it does not create a binding legal mechanism to dedicate an adequate water supply for the environment. Also, in practice, states may fail to impose a *comprehensive* permit system, instead exempting certain types or volumes of use from the permit requirement. Such incomplete permit systems are nonsustainable, ignoring the cumulative impact of numerous small withdrawals or numerous withdrawals for preferred, non-regulated uses. Michigan, for example, adopted only a skeletal water permit system in 2006. The permit requirement generally applies only to those who develop the capacity to make new withdrawals to supply a common distribution system in excess of two million gallons per day. ¹⁰⁹

E. Integrate Water and Land Use

Increasingly, water managers are realizing that land and water use plans must be integrated into a comprehensive whole to ensure that future development has an adequate and sustainable water supply. This poses the challenge of establishing communication between water regulators at the

judgment may be required for the protection of fish and wildlife or the public health and safety").

^{107.} MODEL RIPARIAN CODE, *supra* note 95, § 2R-2-04 (designing comprehensive plan "to promote and secure the sustainable development and reasonable use of the waters of the State taking into account economic, environmental, and other social values").

^{108.} See id. § 6R-1-01 (making water withdrawals unlawful without a permit, unless specifically exempted by the code); id. § 6R-1-02 (exempting small withdrawals less than 100,000 gallons per day from the permit requirement).

^{109.} See, e.g., MICH. COMP. LAWS § 324.32723 (1994) (amended 2006).

state level and land use planners at the local level.¹¹⁰ Although programs to integrate land and water use remain largely undeveloped, California and Florida may provide models for states wishing to move in this direction.¹¹¹

F. Minimize Interbasin Transfers

Establishing the scope of financial budgetary resources generally involves a simple calculation: [Salary + Other Income + Interest] – [Savings Deposits] = Spending Budget. In the water context, it is more difficult to establish the appropriate budgetary scale. In particular, states must decide whether all waters within their borders may be freely moved throughout the state from areas of relative abundance to areas of relative scarcity. Early on, states identified as a limiting factor the premise that other water users must be protected—particularly those with established expectations and uses.¹¹² Some states also consider the environmental impacts of moving water a significant distance from its source, such that return flows will not return to the original watershed.¹¹³ The *Model Riparian Code* suggests an intermediate position—declining to prohibit interbasin water transfers¹¹⁴ but taking measures to protect the environmental, social, and economic interests of the "basin of origin."¹¹⁵

^{110.} See, e.g., Mary Jane Angelo, Integrating Water Management and Land Use Planning: Uncovering the Missing Link in the Protection of Florida's Water Resources?, 12 U. Fla. J.L. & Pub. Pol'y 223 (2001); Robert E. Beck, The Regulated Riparian Model Water Code: Blueprint for Twenty First Century Water Management, 25 Wm. & Mary Envtl. L. & Pol'y Rev. 113 (2000) (observing that the model code does not address the integration of land use and water use issues).

^{111.} See generally Kevin M. O'Brien & Barbara Markham, Tale of Two Coasts: How Two States Link Water and Land Use Planning, 11 NAT. RESOURCES & ENVT. 3 (1996). See also Lee Paddock & Megan Smith, Foreword, Integrating Land Use Law and Water Law: The Obstacles and Opportunities, 23 PACE ENVTL. L. REV. 289 (2006) (publishing symposium proceedings).

^{112.} See TARLOCK ET AL., supra note 3, at 232-33 (describing "no injury" rule for water transfers).

^{113.} See, e.g., FLA. STAT. § 373.016 (4)(a) (2006) (establishing "local sources first" policy to "encourage the use of water from sources nearest the area of use or application whenever practicable"); id. § 373.223(3)(a) (requiring water administrators to consider the "proximity of the proposed water source to the area of use or application" when "evaluating whether a potential transport and use of ground or surface water across county boundaries is consistent with the public interest").

^{114.} See MODEL RIPARIAN CODE, supra note 95, § 2R-1-02 (declining to limit place of water use).

^{115.} *Id.* § 1R-1-14. The accompanying commentary provides:

Transferring water for use outside its basin of origin with little or no return flow to the basin of origin might pose similar problems to the basin of origin as are likely to arise in interstate transfers even when both the basin of origin and the basin of use are within a single state. The Regulated Riparian Model Water Code recognizes the obligation to protect the needs of basins of origin, but rejects any abstract

Existing Lakes documents consider interbasin transfers in rather broad (and protectionist) terms, focusing primarily on flat prohibitions against the export of water outside the entire Great Lakes-St. Lawrence River Basin. 116 This approach makes little sense from an ecological perspective. Basin resources are threatened just as surely by withdrawals to the next subwatershed within the state as by export to distant states. It is the volume and timing of water exports that matter, not the residency of the actor or whether or not the water crosses state lines. Therefore, to achieve sustainability, state law must take a more nuanced approach that regulates rather than prohibits interbasin transfers, based upon ecological rather than political or protectionist factors. 117

CONCLUSION

The Law of the Lakes is still a work in progress. With the passage of the 2005 Compact and Agreement, the hard work has just begun. The states and provinces must now begin a thorough and methodical implementation of comprehensive water codes. Recalling lessons from the Law of the River, Great Lakes states and provinces must undertake the difficult work now, not postpone it to a later day. Undoubtedly, it is more politically appealing to engage the electorate in a battle against a perceived common enemy. But in the long term, legislators will be remembered less for high drama and more for the quiet crafting of an evenhanded regulatory system that ensures the sustainability of one of the world's great resources.

standard that might prevent interbasin transfers beyond that amount necessary to serve actual or foreseeable needs of the basin of origin. Implicit in this policy is a recognition that interbasin transfers are not to be permitted if it would prevent the basin of origin from meeting any of [its] environmental or other social and economic objectives....

Id. (emphasis added).

^{116.} See supra note 69 and accompanying text.

^{117.} The *Model Riparian Code*, for example, enacts no prohibition of use based on location of use. *See* MODEL RIPARIAN CODE, *supra* note 95, § 2R-1-02. However, the code suggests a provision providing that "[t]he State shall protect the reasonable needs of water basins of origin through the regulation of interbasin transfers." *Id.* § 1R-1-14.