

University of Montana

ScholarWorks at University of Montana

Faculty Law Review Articles

Faculty Publications

Fall 2003

Managing Interjurisdictional Waters Under the Great Lakes Charter Annex

Sandra B. Zellmer

Alexander Blewett III School of Law at the University of Montana, sandi.zellmer@mso.umt.edu

Mark Squillace

Follow this and additional works at: https://scholarworks.umt.edu/faculty_lawreviews



Part of the [Administrative Law Commons](#), [Jurisdiction Commons](#), and the [Water Law Commons](#)

Let us know how access to this document benefits you.

Recommended Citation

Zellmer, Sandra B. and Squillace, Mark, "Managing Interjurisdictional Waters Under the Great Lakes Charter Annex" (2003). *Faculty Law Review Articles*. 179.

https://scholarworks.umt.edu/faculty_lawreviews/179

This Article is brought to you for free and open access by the Faculty Publications at ScholarWorks at University of Montana. It has been accepted for inclusion in Faculty Law Review Articles by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact scholarworks@mso.umt.edu.

Managing Interjurisdictional Waters under the Great Lakes Charter Annex

Mark Squillace and Sandra Zellmer

In spring 1998, the Nova Group of Sault Ste. Marie, Ontario, proposed to ship nearly 160 million gallons of Lake Superior water annually via tanker to Asia. See INTERNATIONAL JOINT COMMISSION, PROTECTION OF THE WATERS OF THE GREAT LAKES: FINAL REPORT TO THE GOVERNMENTS OF CANADA AND THE UNITED STATES 44 (2000) (2000 IJC Report). Nova's proposal coincided with declining water levels in the Great Lakes, and the resulting public outcry and pressure from other Great Lakes governments persuaded Ontario to revoke Nova's permit just a few months later. The Nova proposal prompted the eight American states and two Canadian provinces bordering the Great Lakes to revisit the Great Lakes Charter of 1985 and adopt Annex 2001. See Annex to the Great Lakes Charter, June 18, 2001, available at www.cglg.org/1pdfs/Annex2001.pdf (Annex 2001). Annex 2001 commits the Great Lakes governors and premiers to improve their management of Great Lakes water resources through binding agreements. Their self-imposed, three-year deadline for meeting this mandate is June 18, 2004. This article examines the history of water resources management in the Great Lakes Basin and considers the challenges and opportunities presented by Annex 2001.

The Great Lakes—Huron, Ontario, Michigan, Erie and Superior—cover approximately ninety-five thousand square miles and contain 20 percent of the world's and 95 percent of North America's fresh surface water. Due to their vast size, Great Lakes water levels remain remarkably steady overall, with normal fluctuation ranging from one to two feet in any given year. Even so, Great Lakes water levels are highly sensitive to climatic variability, as demonstrated during the severe droughts of the 1930s and 1960s. See 2000 IJC Report at § 2. In recent years, Great Lakes water levels have been on a downward trend, and they are currently at their lowest level since 1965. There is growing consensus that climate change will have a dramatic affect on global precipitation patterns and the hydrologic cycle, and lake levels in the Great Lakes possibly could drop an additional two to five feet before the end of the twenty-first century.

Mr. Squillace is a professor of law at the University of Toledo College of Law. He may be reached at mark.squillace@utoledo.edu. Ms. Zellmer is an associate professor at the University of Toledo College of Law in Toledo, Ohio. She may be reached at szellme@utnet.utoledo.edu.

See 2000 IJC Report at 44.

Meanwhile, demand for water is plainly on the rise. In 1997, the United Nations reported that 40 percent of the world's population suffered from water shortages that limit economic and social development. See Paul Lewis, *U.N. Report Warns of Problems over Dwindling Water Supplies*, N.Y. TIMES, Jan. 20, 1997, at A6. Six years later, it predicted that "the overriding problem . . . of the 21st century [will be] one of water quality and management." See UNITED NATIONS, THE WORLD WATER DEVELOPMENT REPORT—WATER FOR PEOPLE, WATER FOR LIFE (Mar. 5, 2003).

Although data on water consumption in the Great Lakes Basin is incomplete, with many uses unreported, a 2002 assessment estimates that, as of 1998, around 2,200 million gallons per day or 3,350 cubic feet per second (cfs) are consumed, principally for agriculture, domestic supplies, and industry. See INTERNATIONAL WATER USES REVIEW TASK FORCE, PROTECTION OF THE WATERS OF THE GREAT LAKES: THREE YEAR REVIEW 48 (Nov. 2002).

In addition to consumptive uses, substantial quantities of water are diverted both into and out of the Great Lakes Basin. The most notorious of the four major diversions began in 1848, when the State of Illinois constructed a canal to divert water from Lake Michigan for Chicago's water supply and sewage disposal, along with navigation. Extensive litigation ensued between Illinois, the other Great Lakes states and the United States Army Corps of Engineers. See, e.g., *Wisconsin v. Illinois*, 281 U.S. 179 (1930). Illinois continues to divert, on average, 3,200 cfs, lowering the levels of Lakes Michigan and Huron by 0.21 feet. See INTERNATIONAL JOINT COMMISSION, GREAT LAKES DIVERSIONS AND CONSUMPTIVE USES: A REPORT TO THE GOVERNMENTS OF THE UNITED STATES AND CANADA UNDER THE 1977 REFERENCE 15 (1985).

The oldest and the largest of the diversions is the Welland Canal, which was built in 1829 to move water across the Niagara Peninsula so that ships could bypass Niagara Falls. The flow through the canal has averaged 9,200 cfs annually since 1973, lowering the levels of Lakes Michigan, Huron, and Superior by one to two inches, and of Lake Erie by about five inches. *Id.* at 16–18. Despite the Welland Canal's enormous impact on the upper Great Lakes—more than all of the upper basin's consumptive uses combined—it is not treated as

a consumptive use because it does not divert water out of the basin. Its impact on the upper basin, however, is no different than a consumptive use, and the substantial loss of upper basin water through this diversion deserves more attention.

Another significant diversion brings water from tributaries of James Bay into Lake Superior to transport pulpwood logs and provide hydroelectric power. This project counterbalances the Chicago and Welland Canal diversions by raising the levels of Lakes Superior, Michigan, and Huron by approximately one-half of a foot. *Id.* Finally, the New York State Barge Canal takes water from the Niagara River for navigation purposes and returns all of it to Lake Ontario. *Id.* at 20. Together, these four diversions raise the mean levels of Lake Superior by 0.07 feet and of Lake Ontario by 0.08 feet, and lower the mean levels of Lakes Michigan and Huron by 0.02 feet and of Lake Erie by 0.33 feet. *Id.*

A surge of interest in diversions from the Great Lakes occurred during the 1980s, when western interests proposed to use Great Lakes water to recharge the Ogallala Aquifer, to supply water for a coal slurry pipeline in Wyoming, and to improve navigation on the Mississippi River. Even though these proposals arose during a time of record-high water levels, they caused alarm in the basin, and protectionist legislation was enacted at both state and federal levels.

The vast quantities of water available in the Great Lakes makes continued interest in the resource inevitable. Indeed, the Nova Company is not alone in proposing twenty-first century export or diversion schemes. In 2001, the city of Webster, New York, situated on the shore of Lake Ontario, ran ads in the *New York Times* and *Wall Street Journal* proclaiming "Water for Sale." See *Water for Sale*, WALL ST. J., Mar. 22, 2001, at B21. The town received inquiries from a Texas businessman who proposed putting the water in rail cars and shipping it south. Political pressure from Great Lakes governors squelched that plan. In 2002, the Perrier Company began pumping and bottling millions of gallons of groundwater within the basin, generating intense controversy in Michigan and Wisconsin. See Joan Lowy, *Water Wars Pit Bottlers vs. Residents*, GRAND RAPIDS PR., Mar. 31, 2002, at A1. While the total volume of water from this project is relatively insignificant when compared with the massive diversions and other water uses in the basin, the response underscores the significant political attention that will likely accompany any Great Lakes water management proposal.

Economic constraints, however, make large-scale water exports from the Great Lakes Basin impractical. Unless the price of water increases dramatically, transportation costs make shipments to far-away countries or the arid American West unlikely. 2000 IJC Report at 16. Nonetheless, as worldwide demand for fresh water continues to grow while supplies shrink, the economic

viability of future water exports is difficult to predict. Uncertainties over future water trends offer an incentive to put in place a management regime that will help ensure the long-term health and sustainability of the Great Lakes Basin and its water resources.

The Law of the Great Lakes

Annex 2001 is a notable example of an unusually cooperative, bipartisan interstate and international climate, and it provides a remarkable opportunity for managing and sustaining Great Lakes water resources. The Annex was built on a solid foundation of Great Lakes water law that began with the Boundary Waters Treaty of 1909.

Early in the twentieth century, boundary waters between Canada and the United States, and especially the Great Lakes, were a "significant political irritant" between the two countries, with points of contention ranging from navigation to power generation to diversions. See Stephen J. Toope and Jutta Brunnee, *Freshwater Regimes: The Mandate of the International Joint Commission*, 15 ARIZ. J. INT'L & COMP. L. 273, 277 (1998). In 1909, the United States and Canada entered into the Boundary Waters Treaty to address diversions while ensuring that each nation's sovereign interests remained intact. Treaty Between the United States and Great Britain Relating to Boundary Waters and Questions Arising Between the United States and Canada, Jan. 11, 1909, U.S.-Gr. Brit., 36 Stat. 2448. The Boundary Waters Treaty established the IJC, a six-member joint tribunal with jurisdiction over obstructions or diversions on either side of the border affecting the natural level or flow of boundary waters. The most important role of the IJC has been to prepare analytical reports on issues, or references, upon the request of the governments.

The Great Lakes Basin Compact, initially adopted in the 1950s and subsequently endorsed by Congress and signed into law in 1968, commits the Great Lakes states to collaborate on regional issues. Pub. L. No. 90-419, 82 Stat. 414 (1968). Among the compact's more significant provisions was the creation of the Great Lakes Commission, an interstate compact agency that assists in coordinating decisions pertaining to Great Lakes diversions and water use. The Provinces of Ontario and Quebec have recently accepted associate member status on the Great Lakes Commission, which will strengthen a partnership between the governments.

During the 1970s and 1980s, the alarming decline in Great Lakes water quality drew the attention of both Canada and the United States. The Cuyahoga River, a tributary to Lake Erie, smoldered and caught fire when a spark landed in its polluted waters, providing one impetus for the Clean Water Act of 1972, 33

U.S.C. §§ 1251 *et seq.* The two Great Lakes Water Quality Agreements between the United States and Canada followed closely on its heels. *See* Great Lakes Water Quality Agreement of 1972, Apr. 15, 1972, U.S.-Can., 23 U.S.T. 301 and Great Lakes Water Quality Agreement of 1978, Nov. 22, 1978, U.S.-Can., 30 U.S.T. 1383 (amended 1983 and 1987) (GLWQA). Although the GLWQA is concerned primarily with controlling chemical pollutants, it adopts an ecosystem approach that could have some bearing on water quantity as well as water quality. The agreement commits the parties to “make a maximum effort to develop programs, practices and technology necessary for a better understanding of the Great Lakes Basin Ecosystem,” with the goal of restoring and maintaining “the chemical, physical, and biological integrity of the waters of the Great Lakes Basin Ecosystem.” GLWQA, at art. II. Article IV commits the parties to protect beneficial uses of water from the cumulative effects of pollutants. A 1983 protocol to the GLWQA declares the “right of each country in the use of the Great Lakes waters,” while reaffirming the parties’ intent to prevent pollution resulting from population growth, resource development and water usage. Protocol Amending the 1978 Agreement Between the United States of America and Canada on Great Lakes Water Quality, Oct. 16, 1983, U.S.-Can., 35 U.S.T. 2370. For further discussion of the GLWQA’s control of chemical pollutants, see the article by David Fischer on page 51 in this issue.

In 1985, in response to the perceived threat posed by a proposal to divert Great Lakes water for a coal slurry pipeline from the Powder River Basin in Wyoming, the Great Lakes governors and premiers signed the Great Lakes Charter to address diversions and consumptive uses. *See* The Great Lakes Charter, Principles for the Management of Great Lakes Water Resources. The charter provides for notification and consultation among the governors and premiers for proposals to divert more than five million gallons per day (gpd) over a thirty-day period. In order to participate in the charter’s consultation process, the states and provinces are required to adopt a registration requirement for all new or increased consumptive uses greater than one hundred thousand gpd, and a permit system for all new or increased diversions or consumptive uses that exceed two million gpd. These requirements force the Great Lakes jurisdictions away from the common law doctrine of riparian water law, which has historically limited the governmental role in water resource management. Unfortunately, only Illinois, Minnesota, New York, Ohio, Wisconsin, and Ontario have adopted both registration and permit requirements. While Quebec continues to work on its water management program, neither Indiana nor Pennsylvania has adopted permit requirements, and instead of regulating water usage, Michigan enacted a statute that merely prohibits out-of-basin diversions.

See MICH. COMP. LAWS ANN. § 324.32703 (West 1999). Although the Michigan law almost certainly violates the dormant Commerce Clause of the U.S. Constitution in light of *Sporhase v. Nebraska*, 458 U.S. 941 (1982), as a practical matter the validity of the Michigan statute is not likely of much consequence because the federal Water Resources Development Act (WRDA), 42 U.S.C. § 1962d-20, which is described below, effectively precludes most out-of-basin diversions from the Great Lakes.

Congress granted specific authority to the Great Lakes governors to control water usage in 1986 when it adopted WRDA. *Id.* WRDA provides that no diversion of the waters of the Great Lakes Basin may occur without the unanimous approval of all of the affected governors. To emphasize the local nature of decision-making, Congress prohibited any federal agency from studying the feasibility of diverting Great Lakes water unless all the Great Lakes governors first approved the study. *Id.* § 1962d-20(e). Congress amended WRDA in 2000 to add that all Great Lakes governors must also approve any exports out of the basin. *Id.* § 1962d-20(b)(3). As a result, a single governor can wield veto power over any proposal for a water diversion or export from the basin. The 2000 amendments also foreshadowed the 2001 Annex by declaring congressional policy “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.” *Id.* § 1962d-20(b)(2).

As of 2003, the only diversion to receive formal WRDA approval allows the City of Akron, Ohio, to divert 4.8 million gallons per day from Lake Erie to serve three unincorporated areas outside of the Great Lakes watershed. The Akron project is required to return an equivalent quantity of water to Lake Erie from the Ohio River watershed.

The Great Lakes Charter Annex of 2001

For the most part, the Great Lakes Charter, along with WRDA and the Boundary Waters Treaty, have been viewed as adequate to serve the needs of this temperate region. Water shortages and contentious disputes over water resources in the Great Lakes Basin have been relatively rare. Nova’s proposal to export water from Lake Superior in 1998, however, raised the specter of possible future problems and prompted the Canadian government to declare a moratorium on all bulk water exports from all boundary waters, including the Great Lakes. Meanwhile, the Canadian and United States governments asked the IJC to examine the issue

of water exports. In February 2000, the IJC issued a report and recommendations, one of which was that definitive standards should be developed to govern proposals to remove water from the basin. *See* 2000 IJC Report at 49. The governors and premiers responded with Annex 2001. A comprehensive new set of laws that will provide for management of the water resources of the Great Lakes for many years to come is a necessary next step.

Annex 2001 provides both a challenge and an opportunity to accomplish this objective by establishing a framework for a new set of binding agreements governing withdrawals of water from the Great Lakes. The Annex encompasses the entire Great Lakes Basin, which includes “streams, rivers, lakes, connecting channels, and other bodies of water, including tributary groundwater” which naturally flow into the Great Lakes. Annex 2001, at 3. The term “withdrawal” means any removal of water for consumptive use, regardless of whether the water returns to the basin or not. *Id.* The original draft of Annex 2001 provided for a *de minimis* exemption that would have granted automatic approval for any withdrawal of fewer than one million gallons per day, regardless of location or potential cumulative effects, but the drafters ultimately dropped this provision from the final version of the Annex. Thus, Annex 2001 covers all diversions, exports, and consumptive uses.

The Annex contains six directives. Directive I provides that an interstate compact or “such other agreements, protocols or other arrangements” will memorialize the binding commitments of the states and provinces. Annex 2001, at 3. In Directive II, the signatories commit to an ongoing process of public participation in the preparation of binding agreements. Notably, if the Annex results in a binding agreement between the states and provinces, congressional approval will be required under Article I § 10 of the U.S. Constitution.

The most important of the directives is probably Directive III, which establishes substantive principles for new or increased water withdrawals. First, water loss must be prevented or minimized through return flow or “sound and economically feasible water conservation measures.” Second, there must be no significant adverse impacts, either individually or cumulatively, to the quantity or quality of water or water-dependent resources. “Water-dependent natural resources” include the “interacting components of land, water, and living organisms affected by the waters of the Great Lakes basin.” Annex 2001, at 3. Third,

the withdrawal must result in an “improvement” of water or water-dependent resources of the Great Lakes. Finally, the withdrawal must comply with all applicable existing laws. *Id.*

Directive IV commits the parties to consultation regarding out-of-basin diversions in accordance with the terms of WRDA. Directive V calls for the design of an information-gathering system to facilitate implementation of the charter and any agreement reached pursuant to the charter. Directive VI makes a series of sweeping, but somewhat vague, promises to “identify and implement effective mechanisms for decisionmaking and dispute resolution.” *Id.*

IJC’s 2000 Report reflects many of the same objectives as Annex 2001. IJC, however, recommends separate standards for removals and consumptive uses. Much like Annex 2001, IJC recommends that

major new uses of water be disapproved unless cumulative impacts are fully considered, effective conservation practices are implemented at the place of use, and sound planning is applied. IJC 2000 Report § 11, Rec. 2. By contrast, removals of water by diversion, export or otherwise should be disapproved, according to the IJC, unless the proponent can satisfy the foregoing standards and also demonstrate that there are no practical alternatives for obtaining water and that no

net loss of water resources from the area will result. *Id.* § 11, Rec. 1.

Toward Comprehensive Management of the Great Lakes Water Resources

Despite the many laws and agreements that currently govern Great Lakes water management, the controversies that surround the recent, relatively minor water withdrawal proposals demonstrate the ongoing failure of the Great Lakes states and provinces to effectively manage the largest fresh surface water resource in the world. As they strive to comply with the directives in Annex 2001, the states and provinces have the opportunity to adopt a comprehensive water management program that is currently lacking in the Great Lakes Basin.

As the 2002 IJC Task Force Report makes clear, fears about burgeoning consumptive use of water resources in the basin have been “significantly overestimated and overstated for the past three decades.” INTERNATIONAL WATER USES REVIEW TASK FORCE, PROTECTION OF THE WATERS OF THE GREAT

*Proper management of
new uses necessarily involves
management of existing ones.*

LAKES: THREE YEAR REVIEW 14 (Nov. 2002). This fact does not excuse the failure to provide for comprehensive management of Great Lakes water resources, but it does suggest that time remains to address the Great Lakes water management problems in a thoughtful and deliberate way.

But the window of opportunity will not last forever. The Task Force Report acknowledges that much scientific uncertainty remains about the extent of current usage, the interrelationship between ground and surface water resources, and perhaps most importantly, the impact of climate change on Great Lakes water resources. Moreover, the Great Lakes states and provinces may lack adequate power to limit trade in their water resources as a result of international trade agreements, such as NAFTA. As the report notes, this may be especially true if they fail to adopt water conservation requirements. Accordingly, potentially serious water resource problems loom on the horizon if the Great Lakes states and provinces fail to seize the opportunity presented by Annex 2001 to adopt meaningful changes in the current management regime.

Annex 2001 commits the parties to establishing a new water management system that is “simple, durable, efficient, retains and respects authority within the Basin, and most importantly, protects and conserves, restores and improves the waters and water-dependent natural resources of the Great Lakes Basin.” Annex 2001 at 1. As described previously, Directive III of the Annex directs the parties to establish a decision making standard for “new proposals to withdraw water . . . as well as proposals to increase existing water withdrawals or existing water withdrawal capacity.” Annex 2001 at 3. The new standard is supposed to be based upon, among other things, “environmentally sound and economically feasible water conservation measures.” *Id.*

Unfortunately, the Annex does not address directly the need to conserve water from existing uses. As a result, the focus of the Decision Making Standard Working Group seems to be on finding an appropriate triggering mechanism—a specified volume of water—for reviewing and passing upon proposed new water uses. Such a mechanism will not solve the water management problems facing the Great Lakes. First, setting a trigger below which new uses will not be reviewed encourages proposals that are just below the triggering threshold. Moreover, any plan that focuses solely on new water withdrawals will invite existing users to maximize their rights by increasing their actual consumption by recapturing and reusing and perhaps even selling the water, reducing the amount sent back to the system even while the amount of water withdrawn remains the same. In the end, a bureaucratic initiative that governs only new or increased uses may not yield any real water conservation. Proper management of new uses necessarily involves management of existing uses. For example, one way to ensure

the conservation of water while authorizing new uses would be to retire or limit existing uses through voluntary or incentive-based programs, or by applying traditional reasonable use standards more strictly. In discussing the possible terms of a new agreement among the states and provinces on managing the water resources of the Great Lakes, it makes no sense to take this important aspect of the problem off the table.

A Comprehensive Plan for Managing the Waters of the Great Lakes

Few can doubt the good intentions of all of the parties associated with managing the water resources of the Great Lakes. The states, provinces, and federal governments have repeatedly expressed their genuine interest in finding ways to improve the current management system. But for the reasons expressed above, existing proposals are unlikely to address the current problems in a meaningful way. Mindful that the ultimate goal of Annex 2001 is to find a simple and durable framework that respects authority within the basin and conserves and improves water resources, Annex 2001 at 1, we offer the following proposal.

First, all of the parties should live up to the commitment that they made in the original Great Lakes Charter of 1985 to develop a permit and registration system for all significant water uses in their states, whether new or preexisting. As the parties move toward meeting the Charter’s directives, they should also tighten the current standards, which require registration for uses in excess of one hundred thousand gallons per day and permits for uses in excess of two million gallons per day. There is no compelling reason not to insist on permitting for all water uses beyond *de minimis* levels, including groundwater use. Ontario, for example, requires permits for all withdrawals in excess of fifty thousand liters (13,209 gallons) per day, about one-sixth the amount that triggers registration requirements under the charter. Ontario Water Resources Act, R.S.O. 1990, c. 0.40, s.34.

To the extent practical, data collection efforts should include information about both withdrawals and consumption. Once the states and provinces have developed and implemented comprehensive permit and data collection systems, a more reliable picture of current water uses throughout the Great Lakes Basin will emerge. Most importantly, the data will show more clearly the levels of withdrawal and consumption allowed by each state and province within the basin. Reliable data opens enormous opportunities for conservation and better management.

First, accurate data will make it unnecessary to establish a “trigger” for reviewing individual new water uses. The trigger concept would require joint review by all of the Great Lakes states and provinces of all water

uses that exceed the triggering level. Instead of reviewing individual uses, a trigger might be established for reviewing state or provincial decisions that result in a *cumulative* increase of water usage above a certain threshold. In this way, even the smallest new water uses will count toward the cumulative totals. Moreover, cases triggering review likely will be rare because the states and provinces can avoid review simply by conserving their water resources in ways that will accommodate new uses without exceeding the threshold.

An alternate and perhaps simpler way to manage the water of the Great Lakes Basin would be to cap total water usage and give each state and province a percentage of the cap that it could not exceed. The cap might be set annually or over a period of years, and it could be made dependent on water conditions and trends. In high water years, the cap might grow; in low water years, the cap might decrease. So long as a state or province stays under its percentage of the total cap, however, it would be free to use its share of water as it chooses. In this way, each state and province has a powerful incentive—lacking in the current proposals and law—to conserve its water resources because conserving water consumed by existing users frees it for other users.

Although the allocation of a percentage would, no doubt, be difficult to negotiate, the current percentage of water consumption by the individual states and provinces could serve as a useful starting point. The 2000 IJC Report already includes data on consumptive use levels by each state and province, but more accurate data must be developed in advance of any agreement through the data collection systems described above. Adjustments would then be made to reflect instream needs for fisheries and wildlife, as well as reserved rights for federal public lands and Indian reservations within the basin. Once the percentages are established, a central commission—such as the IJC—could be entrusted with managing the program. Management tasks would likely include setting and adjusting the cap; collecting, auditing, and disseminating water usage data from the states and provinces; and adjusting and ensuring compliance with the cap percentages.


Beyond the basic operation of this program, the commission might also develop and implement a trading program whereby states and provinces could buy and sell water resources among themselves. Water marketing has generally worked well in those limited circumstances where it is made available from a large pool, typically a reservoir, where the ecological and social impacts of the point of diversion and return flows are roughly equivalent. If such a program were adopted, the

Great Lakes governments should retain the authority to review their decisions periodically as experience, changing needs, or political considerations dictate.

Assuming that the Great Lakes states and provinces agree to such a strategy, they will still want to address their long-standing concerns about out-of-basin diversions. If states and provinces are free to manage water within their caps as they see fit, they may choose to allow more water to leave the Great Lakes Basin than is authorized under current law. In theory, this should not be a problem. An out-of-basin diversion, which can and should be treated as a 100 percent consumptive use, will have no greater impact on the basin than an in-basin use that consumes the same amount of water. States and provinces may, however, have legitimate concerns about their ability to re-

store water to the basin if and when it is needed there. To address this issue, the parties might agree to limit out-of-basin diversions to a term of years, to limit the total amount of water that can be diverted out of the basin by each party, or to condition out-of-basin permits on compensatory water resources in the event that critical needs arise. Moreover, by treating out-of-basin water as a 100 percent consumptive use, the states and provinces will have a strong incentive to keep water in the basin where it can be used and reused without counting against their cap. This strategy is consistent with the conservation and improvement

principles of Annex 2001, which should be incorporated within each jurisdiction as the states and provinces move toward implementation of a comprehensive water management program.

Despite numerous international and interjurisdictional agreements, the water resources of the greatest freshwater resource in the world are not well managed. A new Great Lakes management regime must be developed that replaces current incentives to waste water resources with meaningful incentives to conserve water resources. Annex 2001 offers the Great Lakes states and provinces an important opportunity to change their water management strategies in fundamental ways. Early indications from the negotiating parties suggest, however, some reluctance to discard preconceived ideas about how best to manage and conserve this crucial international resource. Opportunities to make the kind of fundamental changes that are needed in the current management of the Great Lakes water resources will likely be rare. An opportunity exists now. For the sake of the Great Lakes, the states and provinces should embrace it. 

The ultimate goal of Annex 2001 is to find a simple and durable framework that respects authority within the basin and conserves and improves water resources.
