Binding Ties, Tying Bonds: International Options for Constraints on Great Lakes Diversions

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I. INTRODUCTION

Because of the enormous amounts of fresh water in the Great Lakes — the world's largest storage system for fresh water — the lakes are frequently looked to as a potential source of a limitless water by users for whom fresh water is a constraining resource. Historically, this has primarily involved diversions to other regions, but more recently it has come to also include in-place consumptive use, primarily as a cooling agent in nuclear power plants.

These varied demands cannot be satisfied, however, without depleting the resource. With residence time of up to hundreds of years, the yield of the watershed (i.e., the supply to the lakes) represents only a fraction of the storage, and thus consumptive use not only affects flows, but also levels and volumes in the lakes. Comprehending all the effects of long term gradual reducing of the volume in the lakes has not been possible, but obvious effects on economic in-basin uses such as power generation and navigation are known; and serious consequence to aquatic life, e.g., from loss of wetlands and shallow areas is believed likely. Thus, there is an “in-basin, instream” demand which competes with the diversion/consumptive demand. This trend has caused considerable concern among the various interests that benefit from the preservation of the Great Lakes system. That concern has resulted in an evaluation of the adequacy of the current legal regimes governing the use of the water, and consideration of strong measures that would strengthen in-basin protection.

Decision making in the face of these competing socioeconomic and natural factors is unusually difficult. Each of the legal systems applicable in the Great Lakes Basin has created highly varied schemes for allocating ownership and control of fresh water resources. These have differences; none of them is comprehensive; their interaction is extraordinarily complicated because they comprise two federal systems, international law,
and ten local jurisdictions; and their operation in the basin is interdependent.

A further problem is historical. None of the local and federal legal systems has ever been oriented to give priority to protection of a river system in place. Historians could, and hopefully will, explain this, but one can readily hypothesize that the problem flows from several factors: inadequate appreciation of instream value as compared with exploitive consumption; political/economic power of consumptive interests (e.g., mining, agriculture); and the fact that the laws have grown up in response to the cases presented (whether legislatively or judicially), and these have involved the much more prevalent rivers and streams where yield replenishment is or has appeared an adequate safeguard of instream needs.

Thus, in general, the courts and legislatures have treated water as essentially an inert mineral to be consumptively and "fairly" shared by its "owners." As a result, in both the United States and Canada and on different legal theories, domestic jurisdictions or owners may apparently deplete the Great Lakes by consumptive use or diversion. The existing international constraints are generally designed to parallel the local rules, i.e., to insure "fair" distribution or sharing in the resource.

Fortunately and fortuitously, however, the boundary countries are not upstream/downstream, but are co-sharers along the watershed and shores. For this reason and perhaps others, international regimes hold promise as a prime source of enhanced protection.

The present paper evaluates the need and options for modified international undertakings to enhance the protection afforded the Great Lakes against diversion of water. As with any legislative or litigation advice, it is first necessary to define the incursions against which the protection is desired. This paper considers three variations on threatened incursion scenarios:

(1) A state or province wishes to implement a diversion, contrary to the wishes of the other basin jurisdictions;

(2) A private individual in the U.S. (or in Canada) proposes a diversion to an area outside the basin, whether within or without the basin state, and the provinces/states are opposed to, but powerless to, prohibit the diversion;

(3) A federal government wishes to implement a diversion, again against the wishes of the other basin states and provinces.

A fourth scenario which is considered a remote possibility, but against which international rules would provide little hope, is that the riparian basin jurisdictions themselves (unanimously) wish to implement a diversion, and that only private citizens oppose it.

The accompanying paper prepared by Professor Sharon Williams
II. EXISTING LEGAL ENVIRONMENT

The dominant international substantive rules governing diversions from the Great Lakes are provided by the Boundary Waters Treaty of 1909, and the decisions of the Commission created to implement it — the International Joint Commission. That Treaty bars diversions unless approved by the International Joint Commission (IJC), or authorized by agreements between Canada and the United States. If the IJC approves the diversion, it, in turn, is obligated to provide appropriate protections for navigation, domestic drinking water, and other affected interests in acting upon any diversion proposal.

To a considerable extent, the IJC has consistently functioned as a quasi-legal body over the past seventy years. As a result, one of the major sources of bilateral international law, both existing and emerging between Canada and the United States, is to be found in the history of the actions and the findings of the IJC, though many of the IJC decisions have involved relatively small matters in themselves.

The Commission meets the fundamental requirements for a law body: it is required by the Treaty to make judgments on a record of an adversarial or quasi-adversarial proceedings and it recognizes the principles of fairness, evenhandedness, and the duty to protect litigants' rights. "Votes" are not taken on a national basis, and the Commissioners are sworn to uphold the Treaty as well as, and within, their domestic constitutional loyalty. While the intentions of the Treaty writers are divided on whether the IJC is a law body, the evolution of the Commission in this direction is critical to defining the nature of the Commission.

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1 Treaty Relating to Boundary Waters and Boundary Questions, Jan. 11, 1909, United States-Great Britain, 36 Stat. 2448, T.S. No. 548 [hereinafter cited as Boundary Waters Treaty or BWT].
2 Id. art. III.
3 Id. art. VIII. The Commission has taken the steps of asserting jurisdiction sua sponte over diversions and obstructions that it believes might potentially divert or obstruct boundary waters, but its effectiveness in such cases has been minimal. See Int'l Joint Comm'n, Seventy Years of Accomplishments: Report for 1978-79, 48 (1980).
4 Boundary Waters Treaty, supra note 1, art. III. Such special agreements have generally involved treaties.
5 Id. art. VIII.
7 Boundary Waters Treaty, supra note 1, art. XII.
8 See generally Int'l Joint Comm'n, Rules of Procedure (1964).
9 Boundary Waters Treaty, supra note 1, art. XII.
Just as international law principles may evolve largely by practice, so may the legal nature of an institution.

On the practical level, the IJC Commissioners themselves make the decisions on applications for diversions and obstructions. In an application proceeding, all six Commissioners are expected to participate in the proceedings. The Commission is provided technical advice by its own engineering staff (a very small advisory staff in Ottawa and Washington). These engineers and other staff, including environmentalists, are advised informally by whatever officials might talk to them from each country. The IJC established a Great Lakes Levels Advisory Board pursuant to a reference from both countries, the Advisory Board was potentially involved in providing more formal advice to the Commission, but it was abolished in 1982.

Having been given the power to preclude diversions of boundary waters, or obstructions except in certain circumstances, the IJC has contented itself, for the most part, with regulating such activities and providing conditions and rules to maximize benefits and avoid adverse impacts.

In its various orders of approval approving dams and regulatory structures on the Great Lakes, the Commission has established boards that control the day to day operating of the works in accordance with management plans established by the Commission (and subject to oversight by the Commission). These plans are generally designed to control diversions to maintain levels and flows in the system in an equitable manner. These boards of control generally consist of government personnel in both countries with orientation and expertise toward hydropower and navigation. Such a board, almost always chaired by representatives of the agencies having the local permitting power over diversions, would also be expected to provide advice to the Commission regarding any proposed diversion, either sua sponte, or by request.

In its proceedings, the Commission often receives formal representations (in the form of statements) from the federal governments of the two countries. These in turn (as well as the Advisory Board deliberations) often involve a process of informal consultation and coordination with local jurisdictions and other interested governmental bodies.

In this manner, the Commission system provides an extensive intricate consultation with the two governments in the course of Commission

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10 Id.


12 Boundary Waters Treaty, supra note 1, art. III. Government works in the boundary waters not “materially” affecting levels and flows are exempt under art. III. Id.
action on a proposed diversion, and to this extent, is a diplomatic or executive body.

Consumptive uses (e.g., evaporation) are a potential problem. No such use has yet been brought before the Commission. In its reports under another jurisdictional source, the IJC has studied such uses. In these reports, the IJC has not specifically and explicitly characterized consumptive uses as equivalent to diversions under the Treaty, but the seeds of such treatment are clear. In the *Poplar River Water Quality Report*, the IJC construing article IV of the Treaty, which bars transboundary pollution, considered Canada responsible for quality impacts of downstream flow reduction, in making an apportionment of the water.14

No one has requested the Commission to consider the converse, a more esoteric "consumptive" claim, i.e., whether any of the uses of the Great Lakes waters for discharge of pollutants or consumptive use require applications as "diversions." Analytically, however, there appears no reason why this could not be the case. In its 1976 Report on Great Lakes Water Levels,15 the Commission originally noted the potential impacts of future consumptive uses on water levels and treaty obligations. However, even at that time, the Commission did not indicate whether such consumptive uses would constitute diversions under article III of the Treaty. The ecosystem perspective on the Great Lakes Basin enunciated by the Commission in its 1977 Water Quality Report and incorporated at a general level in the 1978 Great Lakes Water Agreement16 recognizes the interrelationship of all environmental factors and provides a scientific foundation for controlling diversions to provide assimilative capacity.

The other major source of international rules in general international law is reflected and enlarged in the Helsinki documents.17 While they provide principles that may constitute international governing law, these principles would not, in any foreseeable scenario, as applied to the boundary waters, provide rights or opportunities for rights more stringent than those provided in the Boundary Waters Treaty. The Treaty's

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13 Boundary Waters Treaty, *supra* note 1, at art. IX.
requirement of Commission approval is a greater constraint than the international regime's requirement of notice and consultation, and its softer urging ("should") of negotiation. The substantive protection of the Treaty in regard to conditions contain, as applied to the vast quantities in the Great Lakes system, more substantive limits than common law or Helsinki constraints. In character, however, the Helsinki Rules are no less substantive control than article III of the Treaty. Indeed, in one respect, i.e., protecting an affected state by specifically stating its right (and possibly that of its citizens) to a reasonable share, it could be argued to be a stronger protection than article III of the Treaty. However, the Helsinki Rules are not clearly established as law and, in any event, would require the affected jurisdiction to prove a factual case before a court, which might or might not be available for the purpose. Such an analysis would therefore ignore the overriding importance of the Boundary Waters Treaty provision for a binding decision by a bilateral tribunal on matters applicable to the boundary waters. In this way, the affected state is given far more authority than would be available under the Helsinki Rules.

Conversely, as applied to the tributary waters, the Helsinki Rules would provide significant doctrinal protections in requiring that the downstream state or states, or any states contributing to the basin, be afforded an equitable use of the water, taking many factors into account.¹⁸

The practical efficacy of these protections has been addressed in numerous writings, and specifically in the concurrent presentation by Professor Williams.¹⁹ Suffice it to say that it would seem very difficult, in the case of the Great Lakes, to make the factual showing of substantial injury to a downstream state from a diversion of a tributary for water, to the degree precluded by the equitable considerations of the Helsinki Rules. This is not to say such a case could not be stated. For example, Canada could contend that diversions from Lake Michigan violate the Helsinki Rules by depleting the clean water necessary to dilute pollution emanating from the U.S. side, and further, that such diversions significantly reduce the levels of the lakes, and therefore cause substantial losses to Canadian shipping and hydropower, as well as fisheries. However, given the generality of the Helsinki Rules, and the multiplicity of factors, it seems difficult for Canada to prove, under those rules, that the foregoing is not a reasonable use of the waters by the United States.

Even so, the Boundary Waters Treaty's modified Harmon Rule²⁰ is

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¹⁸ Id. arts. IV, V.
²⁰ See Boundary Waters Treaty, supra note 1, art. II.
probably less restrictive than general international law today. It provides for IJC regulatory jurisdiction only over tributary obstructions or diversions which raise the level upstream of the boundary.  

IJC decisions and conclusions in the water quantity and water quality areas provide some guidance as to existing Boundary Waters Treaty law regarding the scenarios described above, but of an extremely limited practical reliability for implementation, because of the difference in applicable provisions, the factual differences, and the uncertainty as to the internally felt obligation of the IJC to follow precedent.

Another area of background, dealt with in some of the other papers, involves the treatment to be accorded the international treaty obligation in domestic law in Canada and the United States. In short, without factoring in these considerations, it is not possible to estimate the viability of options for international agreements to have effect at the hands of different assumed actors, a consideration relevant to evaluating the international options under different scenarios.

Neither Canada nor the United States is likely to acknowledge the rights of individual citizens, groups of citizens, or local governments to act as surrogate parties having standing to assert treaty obligations. However, at least the United States appears to recognize the right of a foreign country and a province thereof, to act as a plaintiff having standing to assert the rights under treaties. While dependence on enforcement in foreign courts is not very popular as a means of enforcing treaty rights, it is better than nothing.

### III. Evaluation of the Boundary Waters Treaty in Perspective

The history of the IJC has generated a substantial amount of discussion focusing on the conundrum that the IJC is an independent body whose members determine matters before them as individuals rather than as representatives of the official position of their members' nationalities. Proponents of this view note that the Commissioners take an oath to uphold the treaty. The Commissioners also, however, take an oath to defend the laws of their respective governments. Furthermore, the Commissioners are appointed by the executive branch of their respective governments, and serve essentially at the pleasure of those governments. Overridingly, in addition, the Commissioners and their appointed

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21 The only tributary in the Great Lakes Basin crossing the boundary appears to be the Richelieu River, and the IJC permitted a downstream dam in Canada affecting upstream levels in Lake Champlain but has not dealt with a diversion. Since the Hudson River Canal, a U.S. diversion, is upstream, it does not come within the treaty. See Int'l Joint Comm'n, Reference Report, IJC Doc. No. 37R.
boards, philosophically and inherently, maintain a protective stance towards their country.

In many cases, this factor has worked to the enhancement of the environment of both countries. The reason is that the self-protection instincts enhance the likelihood that the Commission will look carefully at the downside effects to the spokesmen's country or its interests. All the adverse effects get aired; whereas in a domestic situation, these same spokesmen might bury their concerns in balancing their board mandates. Once aired, risks cannot easily be ignored or shoved under the rug, and the Commission process usually results in protections. Examples of this are the Commission's findings about biotic transfer in the Garrison Diversion Report, the water quality impacts of the Coronach Power Plant on the Poplar River, and the risks to spawning in Lake Champlain of the Richelieu flood/Control Project.

However, with regard to such matters as the Great Lakes, the Commission has enjoyed, at best, lukewarm success in its self-determined responsibilities. To a large extent, this has reflected the attitudes and degree of appreciation in the two countries of the complexity and environmental fragility of the Great Lakes ecosystem. It is unrealistic to have expected a Commission to reflect problems and concerns before a substantial body of the 250 million citizens in the two countries.

Moreover, when dealing with management of a shared river basin, each of the parties to the basin has internally conflicting interests regarding the use of the basin's resources, their preservation, and their priorities in these matters. Both governments may have an interest in preserving a fishing, navigation, or hydroelectric resource, and at the same time have an immediate large cash interest in the exportation of water (or use for discharge of pollutants). In this circumstance each government tends to pursue its own priorities in its policy towards the resource, but each may obscure the adverse impacts of the other's actions. Individual governments may pursue their separate agendas despite the joint findings. Thus, the U.S. has continued to pursue the Garrison Project, and recent Canadian official speculation about selling water from the Great Lakes might be reflected in the future votes of Canadian Commissioners on diversions. Remote as this may appear, it underlines the basic fact that the Commission's policies are apt to reflect those of the two governments.

Of course, all this comes in the context of a situation where the two countries (however they allocate the power internally) have the power,

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by agreement, to do what they will with the Great Lakes Basin. In this circumstance, any treaty, any commission, any international scheme, therefore, is merely a device for insuring a "hard look" and is a tempering mechanism on the actions of the two countries. At the same time, such hard looks and tempering mechanisms are potentially useful.

Where the countries disagree on individual decisions, an international regime (constitution and institution) can make all the difference. Subject only to the power to terminate the regime (a power that is a virtually untouchable attribute of sovereignty but would be a fundamentally disruptive action if taken unilaterally, and therefore is unlikely to be used,) a treaty regime provides a significant limitation on any unilateral action or actors. As described above, therefore, the Boundary Waters Treaty/IJC regime does significantly protect the shared boundary.

It is important, however, to stress the limitation of this protection. In neither Canada nor the United States can an individual citizen assert any standing to enforce the treaty, either against his own or the other government. Thus, the obligations of the two governments under the treaties are essentially good faith demands on the executive, with review by the legislature.

The Special Agreement route has been taken by the governments, e.g., in the matter of the St. Lawrence River hydro project known as Moses-Saunders, at Cornwall-Massena. In the agreement, the governments adopted a detailed governing program, and further, provided for IJC administration of the river under the program. The IJC, in turn, issued an order of approval.\textsuperscript{25} For political rather than legal significance, it is noted that this project is not an interbasin diversion, but an obstruction, together with a diversion of the stream around the project. The only interbasin diversion by special agreement is the Long Lac-Ogoki diversion from the Albany River Basin into the Great Lakes Basin at Lake Superior, which was agreed to by the U.S. and Canada in 1941, and is not the subject of any IJC action.

IV. PROPOSED DIVERSIONS UNDER THE EXISTING REGIME

How then would the Boundary Waters Treaty — and any source of international law — affect proposed diversions under the variations?

First, out-of-state and in-state diversions are treated similarly. In both cases (unless the diversion is a government work not materially affecting levels and flows or is established by special agreement), IJC approval would be required in addition to whatever domestic approvals are required. The Commission would receive an application, probably receive reports from its advisory board and the relevant control board,

\textsuperscript{25} \textsc{Int'l Joint Comm'n, Order of Approval of Moses-Saunders Hydro Project, I.J.C. Doc. No. 68A.}
hold hearings and receive representations from whatever governments wish to participate (including federal and state-provincial governments) and finally, make a decision. Apart from the obligation under article VIII to provide for appropriate protection, and apart from the priorities accorded various uses by article VIII (if the Commission were to find a material effect on them), the Commission would be free to follow its own wishes.

Under the Treaty, affirmative action requires a majority of the six Commissioners; in fact, the Commission nearly always acts by consensus, and therefore unanimously. In all likelihood, if the diversion was opposed by either country, however, it would not be approved. If it were opposed by a local jurisdiction, but favored by the two countries, it would be surprising if it were not approved, but denial is certainly a possibility under the Treaty. If one or both countries was neutral, the Commission's actions would be far less predictable.

While the IJC could approve a diversion against the wishes of the country in which the diversion occurs, as a practical matter, the consent of the country is required as well. The treaty explicitly makes the Commission approvals cumulative and in addition to local law requirements.

Thus, in the scenario set forth above, the effect of the Treaty is to give a veto to the Commissioners of the non-diverting country. Particularly in the case where the federal government is neutral, the Commission is likely to assume a more protective stance. And even if the governments are favorable, proceedings before the Commission may provide grist in the form of scientific concerns and public opinions which may alter this stance.

The institutional scenarios just set forth apply equally whether the diverting local jurisdiction (province or state) is a participant, a proponent, or an opponent of the diversion. They also apply in principle to in-basin and out-basin diversions, although the factual analysis by the IJC might be different (since the water would not be lost to the Lakes).

The foregoing analysis is not applicable to diversions from tributaries. The preliminary article of the Treaty specifically excludes tributaries from the definition of boundary waters, and these waters are subject to the modified Harmon principle set forth in article II. Under the Treaty, the IJC would not appear to have regulatory jurisdiction over the tributaries. IJC jurisdiction would be limited to any requests for re-

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26 See Boundary Waters Treaty, supra note 1, art. VIII.
27 Id. arts. VIII, X.
28 Id. arts. I, III.
29 Id. preliminary article.
30 Id. art. II.
porting and advice which the governments might make to the IJC, pursuant to article IX.

And, as described earlier, general international law is of dubious value in blocking a diversion from as large a system as the Great Lakes. Thus, from an international perspective, the two basic scenarios that realistically involve potential depletion of the Great Lakes under existing law are:

1. the exporting province-state is willing to allow (or because of domestic U.S. law), or powerless to prevent, a diversion, and the domestic federal government and the IJC are willing to allow it; or

2. where the same diversion is from a tributary of the boundary waters, but not from the boundary waters themselves, and is not within the jurisdiction of the IJC.

V. SOME OPTIONS FOR STRENGTHENING THE INTERNATIONAL REGIME

A. Planning for the Future

On a substantive level, both the United States and Canada seem to have the constitutional power to create additional domestic legislative protection against undesired diversions. The power to agree by treaty seems to be measured by the power to legislate. While the Sporhase case would seem to limit the power of the states, since it is based on the commerce clause (which provides essentially unlimited power to Congress), by definition Congress would appear to have adequate authority to regulate diversions, or to delegate such authority. In Canada, it appears that while the provinces might have some basis for objecting to an action of the federal government in approving or increasing diversions, the prevention of diversions from the boundary waters is within the power of the federal government under section 92.

B. Require the IJC to Develop and Maintain a Master Plan and Inventory of Great Lakes Water Resources

Under article VIII of the BWT and various reference reports, the IJC has collected, analyzed, and drawn conclusions from data on the relationship between flows and various interests. Yet little has been learned regarding the relationship between levels and flows, and ecological factors. To achieve and maintain consistently the necessary political

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32 U.S. Const. art. I, §8, cl.2.
33 British North America Act 1867, 30, 31 Vict., §92 [hereinafter cited as CAN. CONST.].
34 See, e.g., REPORT ON GREAT LAKES WATER LEVELS, supra note 15; REPORT ON CONSUMPTIVE USES, supra note 15.
and public understanding and support for protective policies, it would be helpful to develop a body of expertise and data to show the sensitivity of the basin ecosystem to diversions. Of course, such information systems can be put into the hands of different policy-makers, and in those hands can support different conclusions. Moreover, it is unclear whether the Great Lakes ecosystem can be mastered by any studies or descriptions, and certainly dubious whether the data and understanding can be organized so as to eliminate conflicting interpretations. Indeed, the very complexity of the problems makes it possible to reach such conclusions as "no demonstrable damage" with great ease of pen and conscience. Massive information gathering and evaluation efforts may therefore boomerang.

Moreover, while it can be expected that an IJC will have the capability for generating more data and analysis, and it also may be hoped that the data and analysis, would reflect a sensitivity to the resource and recognition of its fragility, there is a danger that this will not be the case. For example, between 1978 and 1980, the Commission expressed the prevailing view that the water quality of the Great Lakes was improving, although Commission members were being warned of the rapidly approaching toxics crisis, and although the Commissioners were being informed of the problems in meeting even the eutrophication goals which were the basis of the optimism.35

A critical factor that has heavy bearing on the Commission's output, is its dependence on the work of the support provided to it by the personnel of the governments. Whatever bias or predisposition is in the professional and political staffs in the governments is inevitably reflected in the information and analysis provided to the Commissioners and their tiny staff. The Commissioners have extremely limited capability to challenge the information and/or analysis provided to them. Psychologically, any efforts to do so run the risk of disaffection, and loss of communication. It is much like the district attorney attempting to be independent of the police.

Compounding this problem is the fact that the governments have tended to provide the Commission with the services of agencies primarily interested in project development. This, of course, reflects the internal allocation of power by the governments; in both Canada and the United States, the engineering branches are far more powerful than the fish and wildlife divisions.

Finally, river basin management generally suffers from the big project syndrome. Unable to factor all relevant impacts into the decision-making, developers of big projects, who tend also to be the analyzers of

such projects, tend to simply ignore or deny such impacts. There are dangers inherent in driving decisions to the highest level of generality, i.e., six Commissioners attempting to provide impact analysis for the Great Lakes Basin as a whole. In such circumstances, decision-makers tend to subordinate specific, concentrated impacts to perceived generalized benefits in weighing system-wide impacts, whether regions, countries, or water basins. Usually, the more sophisticated publics are more interested in system-wide considerations, as their mobility and personal power leave them less married to specific local impact areas.

This is not, of course, a suggestion that local concentrated impacts are consistently or always more important than regional ones. It is simply saying that the reverse is not always true either, and the tendency to elevate decisions to a more general level tends to generate more consideration of general impacts. Illustrations of this may be seen in the Commission's difficulties in coming to grips with some of the impacts of regulation of Lake Ontario and the Niagara ice boom. In both cases, local interests identified adverse impacts that had apparently never been addressed in the initial decision making (by any discernible evidence). In the case of Lake Ontario, the range of stages had been reduced.\(^3\) Although the studies performed by the two governments for the Lake Ontario regulation claimed this as an unqualified benefit, the local citizens observed that the natural regime of greater and more irregular ranges of stage had caused rocky bars to build up offshore under the water during low stage times. They observed that these rocky bars acted as barriers to wave erosion during high stage times. When residents attempted to raise this point, they were squelched, and their lack of expertise was stressed. There is now considerable support for their observations, but there is no tendency or sign of anything being done to address these concerns, although erosion has increased dramatically on Lake Ontario since the inception of regulation in 1958.

Similarly, the city of Buffalo and other local riparians (including some who benefited from the Niagara ice boom) claimed that the boom had a tendency to delay the elimination of ice from the southeastern end of Lake Erie, and thereby increased heating costs in Buffalo.\(^3\) The impacts were too fine to be clearly identified in statistical comparisons of temperatures before and after the ice boom in various cities around Lake Erie, but the fundamental validity of the argument has been demonstrated. By keeping the ice caked on the Lake, the boom reduces the amount of air surface, and therefore slows the melting process. A dramatic demonstration of this principle has occurred, in West Virginia, where chemical companies have learned that tests made on laboratory-

\(^{36}\) See Order of Approval of Moses-Saunders, Hydro Project, supra note 25.
\(^{37}\) See I.J.C. Doc. No. 79A.
size tanks to demonstrate the degree of heat build-up are inapplicable in the real world. In experimental tanks, there was higher surface area ratio which dissipated the heat, whereas in the bigger real-life tanks, there was less surface area ratio, and therefore more rapid build-up of heat.\textsuperscript{38} These logical scientific principles escaped the IJC and its experts for many years and may be a continuing problem.

In this context, it is highly advantageous that the IJC does not have project construction responsibilities, but this advantage is substantially offset by the fact that it depends on experts who do.

Conventional considerations can also come into play. Governments are often unwilling to expend funds and disclose information which is considered wasteful or harmful to their cause. To the extent that the IJC depends on such information, its task can be stymied, and its protections rendered illusory.

To address these problems, and yet secure the clear benefits of highlighting a full range of impacts, consideration should be given to providing a more elaborate IJC infrastructure, which would include local representation, public participation, and a more independent staff effort by the IJC, in studies regarding Great Lakes diversions and production of base data relevant to those studies.

C. Comprehensive Land Use Planning for the Great Lakes

Although not technically relevant to diversions from the basin, the impact of such diversions is obviously subject to change depending on the in-basin uses to be made of the water. This, in turn, is clearly influenced by the land use pattern in the basin. Needless to say, both the United States and Canada have traditionally resisted international land use studies. This is understandable. In the case of the Souris-Red River Basin, in Manitoba-Montana and South Dakota, both countries declined to develop such a study, even one limited to factual analysis, and even though the countries had seemingly embraced such a concept in the initial reference to the IJC (which was very broad and terse).\textsuperscript{39} In a basin of the monumental economic significance and social importance of the Great Lakes, it is even less likely that the countries would embrace international land use planning. Nevertheless, to fully support the in-basin uses, and to fully protect against adverse impacts, such data is important, and must be supplied in some way.

\textsuperscript{38} See N.Y. Times, Sept. 9, 1985, at A12, col. 6.

\textsuperscript{39} See I.J.C. Doc. No. 58R.
D. Permit the IJC to Allow Diversions, etc., Without Any Domestic Power

Giving the IJC total or alternative power over diversions of boundary waters would, of course, ease the way for diversions. Assuming that the objective is to provide greater protection against diversions, and/or to attain more rational diversion policy, there seems little benefit to this option.

As indicated previously, where the diversion is from a boundary water, the rule of the Treaty can enable a U.S. state to block export, through judicial enforcement of the Treaty, whether or not it is the state in which the diversion occurs, on grounds of the Treaty obligation of the United States to Canada. However, if the IJC approves the diversion, by definition of the Treaty's obligation is discharged and the claim is moot. Since the most authoritative cases suggest that the IJC, acting under the Treaty, is immune from suit in either country under domestic legislation, the remaining recourse is to international courts under general international law. In any event, the international tribunal route is a difficult one for individual citizens to pursue, and even if successful, as indicated by Professor Williams, is unlikely to bear fruit. Individuals are not recognized as having standing in international tribunals. It is unlikely indeed that international law would bar a diversion which has been approved by a process of IJC consideration and approval; thus evidencing notice, consultation, and mutual agreement of the countries, derivatively through their approval of the Treaty and the IJC mechanism.

E. Prohibit All Diversions from the Boundary Waters and/or Extend the Treaty to the Tributaries

Conversely, the treaty could be amended by the federal governments to preclude diversions altogether from the boundary waters, and tributaries could be added to the protections of the Treaty. Article III could be restated to provide that neither the boundary waters nor the tributaries shall be diverted for any purpose whatsoever.

No U.S. or Canadian constitutional rule would clearly preclude such an action. In the U.S., the treaty-making power is at least co-extensive with the interstate commerce clause, and in any event, by adopting such a treaty, Congress would implicitly be determining a method of regulation, a regime, for the affected waters, entirely consistent with Sporhase and other precedents. In Canada, the boundary between federal regulation (and ownership of use rights) and provincial ownership

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40 It could be argued that the exporting entity is amenable to suit in U.S. courts, but the U.S. courts, have held that U.S. decisionmakers, acting under domestic authority, are immune from suit when fulfilling a function related to or consistent with a directive of the IJC.

41 See Williams, supra note 19.
makes such a proposal a little unpredictable, but the federal Canadian
government's international involvement rights under section 92, would
appear to authorize such regulation.\textsuperscript{42}

The immediate response is that even if any such treaty provisions
could be created, they could as easily be abrogated by later agreement of
the countries. As has been evidenced by seventy years under the Boundary
Waters Treaty, however, this argument is historically counter-factual. History tells us that a consensus that exists long enough to create a treaty obligation locks into place an inhibition that can survive the vicissitudes of time and priorities. On the other hand, history is only an imperfect prognosticator, and in any event, the analogies are never precise. Still, it appears that, if a consensus could be created to enact such provisions, it would have significant effect. By the same token, such a binding, absolute treaty would seem unlikely to get support.

\textbf{F. A Sketch of Potential Enhanced Treaty Protections Under the Boundary Waters Treaty, as it Might be Revised}

This leads to consideration of meliatory measures which would heighten the barriers to diversions without seeking absolute bans. Such measures are more likely to be accepted and are more feasible. In addition, they could overcome some U.S. and Canadian domestic law problems faced by the states and provinces.

To begin with, article II(24b) could be completely rewritten, and a substitute enacted that would provide in substance that, recognizing the critical dependence of the Great Lakes on tributary flows, the parties agree that the waters tributary to the boundary waters shall be subject to the regime of the boundary waters.

Articles III, VII, and VIII could be revised to provide for limits on IJC approved diversions, requirements for elaborate fact finding, and particularly for requiring a provision for a finding of no present or potential harm, individually or cumulatively, to the lakes from any diversion, and further providing for standing of each individual state or province to veto any application before the Commission.

Another option would be to amend the Treaty to add provisions permitting citizen or group enforcement, and explicitly acknowledge state and provincial enforcement rights. In this way, any standards that might be set forth for consideration of proposed diversions could be enforced not only by the governments, but by whatever parties are given standing under the Treaty. The analogy, of course, is to citizens' suit provisions under U.S. environmental laws. While the tradition in Canada is substantially different, it might not represent a substantial barrier

\textsuperscript{42} \textit{CAN. CONST.} \textsect{92}. 
to such a treaty provision. Canadians might find it advantageous to permit such standing rights.

Article XI could also be modified to permit appeals from any action of the IJC to the domestic court of a citizen of either country by such citizen, with a standard of review such as arbitrary and capriciousness. Such an appeal might well go beyond the international law or legal norms and could, moreover, be a double edged sword. Reliance on the fidelity of the Commission to its mandate would seem a better course.

Alternatively, the countries could restrict the potential for diversions by placing more limitations and standards on the Commission’s actions. For example, the Treaty could be amended to provide that the IJC shall not approve any diversion which is inconsistent with the Great Lakes Charter, but may refuse to approve a diversion even if such diversion is consistent with the Charter. Such a provision would require the IJC to make a finding that a proposed diversion is consistent with the Charter. Presumably, the language could be made explicit enough to ensure that the action is in no way to be taken as suggesting that a diversion consistent with the Charter should be more easily approved. In fact, with the emergence of the Charter, it may be that there is a potential danger of such a construction by a future IJC in the absence of a Treaty amendment specifying to the contrary. While there is no explicit warrant in the Treaty for such a construction, as has been noted, the IJC does tend to reflect governmental policy, and if there is a potential for executive policy to permit diversions, a Commission could seize on the Charter as a source of support for such a diversion.

Other standards could be written to block or limit Commission approval of diversions. These could, for example, preclude Commission approval of diversions that have not been approved by both countries. Such a provision would represent, on paper, a radical alteration of the existing substantive regime, but in fact would not change matters much, since each country maintains its own domestic permitting requirements.

Another possible alteration in the substantive provisions would be an alteration to articles VII and VIII, providing for a different ordering of benefits, such as recognizing fish and wildlife and other affected interests explicitly.

One way to accomplish the limitation would be to require special agreement provisions to include special agreement of all affected jurisdictions, or to abolish special agreements altogether.

Another amendment might add consumptive uses expressly to the provisions of the Treaty, by explicitly including consumptive uses within

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the definition of diversions. Indeed, such a result might also be obtained by joint representations of the executive branches of the U.S. and Canada to the Commission, indicating a consensus that consumptive uses are already within the term "diversions."

G. Creation of a New International Regime

An alternative to the strengthening of the Boundary Waters Treaty institutional provisions could be developed. Such an alternative or alternatives could provide for joint state-provincial actions under the aegis of a treaty organization. The Great Lakes Fishery Commission is such an organization, in which explicit representation is provided to the various riparian jurisdictions, and the organization has authority to make decisions regarding fisheries matters. There is no constitutional prohibition in either country, and no international doctrine, which would bar or limit the delegation of such federal powers to the states and provinces. Any constitutional doubts in the U.S. can be overcome by Congress simply exercising its power under the interstate commerce clause.44

An alternative of this kind could elevate the Great Lakes Charter and enact it into a positive bilateral or interstate compact legal regime. Such a body could in fact be delegated the administrative powers over levels and flows that are presently accorded to the IJC. It could be structured to utilize its own staff, or, as the IJC does, to utilize staff representation from the various affected jurisdictions. It could act by national majority (a majority of the members from each country), or by any other voting requirement (including a requirement of positive votes from both countries). A problem that occurs in structuring such a body, however, is that the Canadian representation would more likely be unanimous than the U.S. side, because of the potentially conflicting interests of various basin jurisdictions on the U.S. side. For this reason, it may be desirable to overcome this asymmetrical situation by providing institutions in which the countries would caucus and arrive at a "country position."

Such a solution would distribute the federal power to the riparian jurisdictions and establish a mechanism to regulate and protect the resource.

VI. Effectiveness of International Options in Dealing With Diversions: Application to Scenario Variations

A total Treaty ban on diversions from the Great Lakes would simply and easily prevent any diversion, subject to Treaty violation or termi-

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44 See Delaware River Basin Compact, Pub. L. No. 87-328, 75 Stat. 688 (1961), granting power to an interstate body, but reserving certain rights to Congress.
nation. A total ban on diversions unless approved by the IJC (repealing the special agreement provision), would protect against diversions unless agreed to by the Commissioners appointed by both countries, or at least a majority of them.

Lodging a veto over IJC action in the Great Lakes Basin jurisdictions would enable any basin jurisdiction to block a diversion.

A Congress willing to adopt a policy giving each basin state a veto over IJC approval would presumably be willing to enact a domestic statute, exercising the commerce clause power, to give any basin state a veto over a diversion from its own territory. Applied to the international level, such a veto would certainly be effective. It could not be a Treaty violation, since the Treaty requires IJC approval on top of domestic regulation.

An extension of the Treaty constraints to tributaries of the boundary waters would effectively add the tributaries to the affected asset inventory, the extent of such protection depending on whether the Treaty is amended to strengthen the protection against diversions from the boundary waters.

An amendment to define diversions as including consumptive uses would similarly extend the Treaty constraints to such proposed uses; again, the extent of such protection depending on whether the protections presently afforded the boundary waters are extended.

Provisions for data collection and analysis, comprehensive planning, and the like would potentially provide for more informed judgments by the IJC, where its consent is required, and potentially more informed judgments by any other decisionmakers. In this way, ill-advised diversions might be further restricted. Comprehensive planning would similarly providing for more enlightened decision making, although the application of such comprehensive planning to actual decision making may not be a simple matter.

Thus, the potential international law options can address all of the scenario variations, and those that do not involve a total treaty prohibition provide for the protection of the Lakes against action that is opposed by any other jurisdiction, or by an IJC majority.

VII. PROSPECTS OF ADOPTION

Having identified some potential international options and their effects, what are the prospects of enactment, and what recommendations can be made as to the most beneficial use of them by those wishing to enhance the restrictions on diversions from the lakes?

A truly intelligent answer to this question would require analysis of how the domestic processes work in the U.S. and Canada. This undertaking is beyond the scope of this paper. However, some observations
can be made, particularly as to the United States. In both countries, it would appear that the riparian jurisdictions and their representatives in the national or federal system would exercise considerable, and perhaps overarching control over any such proposals. For example, if the Basin States in the U.S. were to unanimously support a requirement for IJC approval of tributary diversions, as an amendment to the Treaty, and the twenty senators from those states were to support it, it is a substantial possibility, if not probability, that such a measure would be approved in the U.S. Senate.

The question, therefore, is whether the Basin jurisdictions are prepared to support such a limitation on their own prospects for making diversions. The Great Lakes Charter demonstrates a commitment to protect the lakes from such diversions, but it also appears to preserve some degree of flexibility for the Basin States. A requirement of IJC approval would not necessarily eliminate all flexibility, but it would give Canada an explicit voice in such diversion decisions. These other states would presumably have an opportunity to seek to influence American IJC Commissioners; this might or might not constitute a greater voice than what the states presently enjoy, i.e., an opportunity to persuade the U.S. Army Corps of Engineers and other U.S. agencies from whom domestic permits might be required. As a practical matter, it would appear that the voice would be enhanced, since U.S. domestic agencies, such as the Corps of Engineers, tend to defer to wishes of the state in which a project is located to the exclusion of representations from other states. These are practical considerations but ones that the states would presumably take into account in deciding whether to support a treaty amendment to bring tributary waters within the Treaty.

Any and all of the other provisions which can be considered would be subject to the same questions, presumably in either country. In addition, in Canada, because of the recognized resource ownership by the provinces, any ceding of authority to an international regime would encounter the additional hurdle of having to overcome the perceived loss of provincial sovereignty involved. Of course, this could be obviated to a considerable extent by the deference which Canadian IJC Commissioners give to provincial wishes.

In the U.S., opposition to such provisions would also emanate from northern tier states having tributaries of boundary waters. As a practical matter, this would appear to be limited to Idaho, Washington, Montana, Minnesota, and Maine. Their views of any actions which would affect their use of tributaries might be significant. Parallel concerns on the Canadian side might emerge from British Columbia. Ontario would have to evaluate a whole host of considerations. Of course, a treaty revision could be shaped to apply only to the Great Lakes boundary waters, and thereby obviate the number of U.S. affected states.
Further concern in the U.S. would come from potential importing states. In the great debates over the northwestern diversion proposals, such considerations were overcome, and Congress did enact an absolute ban on even planning for such a diversion. Thus, there is reason to believe that if the basin states were to support any enhancement of the international controls over diversions of the lakes, Congress could enact it. On the other hand, such states might very well feel that the more likely and desirable protection would be one that would be limited to the U.S., by inducing Congress to exercise its interstate commerce power to provide the states with more control over diversions. Whether this would be as easy to accomplish as a treaty amendment is, of course, another political issue.

The potential for structuring a new treaty, or fundamental revision to the Boundary Waters Treaty that would establish a new organization representing the Basin jurisdictions is an intriguing one. For the reasons stated with regard to modification of the IJC jurisdiction, it is certainly not out of the question. If the Basin States were to unanimously support such a provision, its potential for adoption would appear not inconsiderable.

VIII. SUMMARY

In sum, the two great countries whose citizens share the great resource that the Great Lakes system represents can, legally and practically, substantially increase the difficulty of effecting a diversion from the Great Lakes or their tributaries through enhanced treaty protections. While these protections may be no more “final” than the existing Treaty provisions, the latter have established a record of substantial effectiveness or at least consistency which makes the exercise apparently worthwhile. Particularly in view of the constitutional limitations, under present judicial interpretations, on U.S. states, and the occasional Canadian temptation, there could well be substantial support in the U.S. Congress for enhanced treaty protections at this time. The present limitations on Canadian ability to preclude U.S. diversions from Lake Michigan and other tributary waters, may make such proposals feasible in Canada as well.