Who Owns the Great Lakes--Posturing for Control of an International Resource

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NOTES

Who Owns the Great Lakes? Posturing for Control of an International Resource

by David S. Hoffmann*

I. INTRODUCTION

In August, 1981, a Montana coal company approached the state of Wisconsin with a proposal to build a two thousand mile pipeline from Gillette, Wyoming to Superior, Wisconsin.1 The company wanted to pump water from Lake Superior to the coalfields of Montana for use in a network of coal slurry pipelines2 to other parts of the country.3 The proposal was ultimately shelved because of economic considerations and political opposition,4 but its implications stirred up considerable apprehension

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2 Transporting coal by pipeline involves a three step process. First, ground coal is mixed with an equal volume of water and held in storage tanks equipped with agitators to prevent settling before the mixture is introduced into the pipeline. Second, the slurry is propelled at about four miles per hour by pump stations located at fifty to one hundred and fifty mile intervals along the pipeline's length. Third, the slurry is again held in agitating storage tanks at the pipeline terminus until the coal and water are separated by certifugation. The coal is then dried and ready for boiler preparation. See Webber, Coal Slurry Pipelines are Ready, Willing and Unable to Get There, 11 St. Mary's L.J. 765, 769-70 (1980). Coal slurry pipelines have proven to be cost effective and competitive to rail transport primarily in the high volume, long distance transportation market. Id. at 768, 770-71. However, several western states have banned the use of interstate waters for such purposes. See, e.g., MONT. CODE ANN. § 85-2-104 (1981), which provides in relevant part: "(1) The legislature finds that the use of water for slurry transport of coal is detrimental to the conservation and protection of the water resources of the state. (2) The use of water for the slurry transport of coal is not a beneficial use."

3 Quade, supra note 1, at 1066. The network of pipelines was to transport coal to several western generating plants. Id.

4 The costs of bringing water across this distance is presently not economically feasible.
among Great Lakes states about future control over the vast resources of
the lakes.⁵

Fearing further diversion requests, the officials from the eight Great
Lakes states, and the two Canadian Provinces, met recently in Mackinac
Island, Michigan.⁶ The conferees adopted several resolutions, one of
which requires their unanimous approval for any future diversion re-
quests.⁷ One of the most signifi-

In all likelihood, Canada and Ontario would oppose any attempt of such a diversion. See
Great Lakes Regional Office, The International Joint Commission, 8 Focus on Great
Lakes Water Quality 8 (1982) [hereinafter cited as Focus on Great Lakes Water
Quality].

⁵ Presently, there is no existing comprehensive management agency that has the power
to dispose of this issue. See infra notes 177-83 and accompanying text.

⁶ The Great Lake states are New York, Pennsylvania, Ohio, Michigan, Indiana, Illinois,
Wisconsin and Minnesota. The two Canadian Provinces are Ontario and Quebec. Prelim-
nary Proceedings, 1982 Great Lakes Water Resources Conference (June 9-11, 1982) (availa-
ble from the Michigan Department of Commerce) [hereinafter cited as Proceedings]. The
lakes are potentially the most viable new source for arid western regions. The lakes are the
largest body of freshwater in the world, comprising approximately 95,000 square miles, one-
fifth of the total surface freshwater. Id. at 7.

⁷ The resolution on diversions provides that:
WHEREAS, the States and Provinces in the Great Lakes Basin have been
blessed with an incomparable water resource; and
WHEREAS, increasing evidence points to severe freshwater shortages in
other parts of the United States, shortages that already are apparent and are ex-
pected to reach major proportions in the next decade; and
WHEREAS, the search already has begun for alternative sources of water for
those regions, with support for some of that search coming from the United States
Federal Government; and
WHEREAS, the water of the Great Lakes is needed to meet the current and
future domestic, industrial, navigational, power, agricultural and recreational
needs of the Great Lakes and St. Lawrence region; and
WHEREAS, the findings of the International Joint Commission's Great
Lakes Diversions and Consumptive Uses Study Board indicates that we will be
faced with substantial increases in consumptive uses within the Basin over the
next half century to meet our own growing needs; and
WHEREAS, the diversion of water from the Great Lakes Basin to other water
basins reduces the net supply of water available to the Great Lakes Basin and
lowers lake levels; and
WHEREAS, lowered lake levels and reduction of flows in connecting channels
could result in serious losses in water supply, navigation and recreational values
causing critical economic, social and environmental problems adverse to the peo-
ple of the Great Lakes and St. Lawrence States and Provinces; and
WHEREAS, the wise use and development of the water resources of the
Great Lakes is essential to the economy and prosperity of the Great Lakes and St.
Lawrence States and Provinces; and
WHEREAS, the diversion of Great Lakes waters to other regions of the
United States or Canada could result in severe restrictions in the growth and de-
velopment of the Great Lakes and St. Lawrence region; and
proved resolution was a hope to lure major industrial firms back to the
economically depressed Great Lakes region.\textsuperscript{8} Evidence introduced at the
conference indicated that lower lake levels created by diversions would
have wide-ranging environmental and economic impacts on the region.\textsuperscript{9}

The availability of adequate water supplies is rapidly becoming "the
most serious long-range problem now confronting the nation; potentially
more serious than the energy crisis."\textsuperscript{10} Supplies are dwindling in the west
and many states are looking for new sources, not only for mining, but for
agricultural and domestic use as well.\textsuperscript{11} Unless there is a shift in alloca-

WHEREAS, it makes far more sense for development to occur where abun-
dant supplies of fresh water already exist, rather than moving the water to other
regions; and

WHEREAS, we share in the responsibility for the stewardship of the tremen-
dous natural resources which the Great Lakes provide; and

WHEREAS, the Boundary Waters Agreement of 1909 requires that any
change in the flows and levels of any boundary waters is subject to approval by
the federal governments of both the United States and Canada.

NOW THEREFORE BE IT RESOLVED by the Great Lakes States and
Provinces that based on existing information they object to any new diversion of
Great Lakes water for use outside the Great Lakes States and Provinces; and

BE IT FURTHER RESOLVED that no future diversions be considered until
a thorough assessment, involving all jurisdictions contiguous to the Great Lakes
System, of the impacts on navigation, power generation, environment and socio-
-economic development for all said jurisdictions takes place.

BE IT FURTHER RESOLVED that any future decision on the diversion of
Great Lakes water for use outside of the Great Lakes States and Provinces be
made only with the concurrence of the Great Lakes States, the United States Fed-
eral Government, and the Federal Government of Canada and the Provinces con-
tiguous to the Great Lakes system.

Proceedings, supra note 6 (supp.). All told, eight resolutions were adopted including Great
Lakes water quality and consumptive uses. The resolution on diversions was singled out
here to illustrate the potential conflicting objectives the Great Lakes states perceive in fu-
ture management of this abundant resource. Obviously, the states' desire for increasing con-
trol is equally applicable to the latter areas of concern. Diversions, however, have possibly
the most serious economic implications for the states in terms of their growth and
development.

\textsuperscript{8} Proceedings, supra note 6, at 5, 12.

\textsuperscript{9} An engineer testifying at the Conference pointed out that the Montana pipeline diver-
sion would require approximately 10,000 cubic feet per second, which would lower interlock-
ing lake levels enough to cause a $35 million loss in navigational revenues and eighty million
in electrical generating capacity. Golden, supra note 1, at 81.

\textsuperscript{10} Proceedings, supra note 6, at 9 (quoting the acting director of the U.S. Resources
Council).

\textsuperscript{11} Significant water supply problems exist or are anticipated in southern California, the
Great Basin, the Lower Colorado, the Rio Grande, the high plains of Texas and the south-
central portion of the Mississippi River Basin. Many of these areas are large consumers of
water for irrigated agricultural production. Expected water use for development and
processing of coal and oil-shale deposits in a few of these areas will add to the difficulties.

\textbf{SENATE COMM. ON THE ENVIRONMENT PUBLIC WORKS, 96TH CONG., 2D SESS., STATE AND NA-}
tion, lack of water may severely limit growth and development in some of the more critically depleted areas.\textsuperscript{12}

In recent years, there have been several proposals to divert water for interstate use.\textsuperscript{13} Few of these proposals have survived economic and political barriers.\textsuperscript{14} If, however, present conditions hold true and large scale diversions become economically feasible,\textsuperscript{15} several institutional and political questions will have to be answered. For example, is there a presently existing federal, state, provincial or combined agency capable of dealing with the complexity of issues involved? Can the Great Lakes states and

\begin{quote}
\textit{Id. at 10.} Irrigation in the Great Plains states depends primarily upon the Oglalla aquifer, an enormous underground reservoir covering 160,000 square miles extending from western Texas to northern Nebraska. However:

[The aquifer] is being so rapidly depleted by agriculture that some areas may approach the end of their water by the year 2000 and most other areas by 2020. A recent study . . . reported that irrigation scheduling—tighter control of flow to farmers' fields—could cut Oglalla depletion by 15\% to 20\% [while] farmers can be expected to shift to crops with lower water requirements. Such changes of habit will only moderate depletion, not stop it. Water shortages bring to the economy of the Great Plains—and of the world supply—[a] demand [for] a more extravagant solution.
\end{quote}

\textit{Opie, Draining America Dry, PROGRESSIVE, July 1981, at 20.}

\textsuperscript{13} There is currently one operating coal-slurry pipeline in the United States between northern Arizona and southern Nevada, although several have been proposed for the major western coal producing states. Tarlock, \textit{Western Water Law and Coal Development}, 51 U. \textit{COLO. L. REV.} 511, 538 (1980). South Dakota has recently agreed to sell a portion of its share of the Missouri River to coal companies in Wyoming for pipeline use. Golden, \textit{supra} note 1, at 80. Perhaps the most innovative and by far the largest interbasin diversion proposed is the North American Water and Power Alliance (NAWAPA) project. At a total capital investment of $100 billion (at 1964 prices) over a twenty year construction period, the project was designed to bring water (approximately 110 million acre feet) from the northwestern part of the continent to seven provinces of Canada, thirty-three states in the United States, and three states in Mexico. The Ralph M. Parsons Co., NAWAPA: North American Water and Power Alliance, Brochure 606-2934-19 (no date). As the two authors note, "the economic, hydrological, and ecological impacts of a project this size would be profound . . . [requiring] institutional and political arrangements and agreements . . . devised on a scale never before attempted." \textit{C. HOWE \& K. EASTER, INTERBASIN TRANSFERS OF WATER} 5 (1971).

\textsuperscript{14} Consider this account of the reaction to the South Dakota sale:

\begin{quote}
\textit{South Dakota’s Sioux Indians . . . are contemplating a suit [under the doctrine of federally reserved water rights]. So are two downriver states, Missouri and Nebraska . . . . At the Midwest Governors meeting which unanimously passed a resolution calling on Congress to leave the region’s water riches under control of the states, Iowa Governor Robert Ray denounced South Dakota’s action as a neighbor’s breach of faith. Said he: “What bothers me most is not the amount [to be] diverted, which is comparatively small, but the precedent. Other concerned states should have a voice when water that would normally flow to us is diverted for projects that do not benefit us and are located outside our area.”}
\end{quote}

\textit{Golden, supra note 1, at 81.}

\textsuperscript{15} See \textit{supra} note 4.
provinces prohibit the transfer of interstate water? Will the states and provinces be adequately represented if they cannot unilaterally prohibit such a transfer? What are the costs and benefits to regional interests? What weight should be given to Canadian interests? The resolution of these issues will require innovation and invention beyond the competence of any existing institutional framework, particularly when applied to the enormous physical, economic and political dimensions of the Great Lakes Basin.

Although a comprehensive analysis of the Great Lakes diversion dispute would require nothing short of a major treatise, this note examines the problem from a broader, simplified perspective in order to begin to understand and resolve the underlying issues. The first section is an overview of the major components of contemporary law governing the Great Lakes. This includes state law and federal law under the U.S. constitutional doctrines of the interstate commerce clause, the treaty power, the compact consent clause and Canadian provincial and dominion law. The second section focuses on the Chicago Ship Canal diversion to highlight the concern that current institutions are inadequate frameworks for resolving future diversion requests. The third section examines the economic and political implications of the Great Lakes states' and provinces' unprecedented attempt to control this major international resource. Finally, this note concludes that the states and provinces may achieve representation in a cooperative arrangement with both federal governments.

II. PRESENT LAW GOVERNING THE GREAT LAKES

Regulations and use of the waters of the Great Lakes are governed by a complex array of state and federal court decisions, administrative agencies, local, state and federal statutes, and federal treaties. Overlying

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16 C. Howe & K. Easter, supra note 13, at 5.
17 See infra notes 26-27 and accompanying text.
18 There are literally hundreds of minor issues when one considers the multitude of jurisdictions, agencies, and interests of the thirty-five million people living within the Great Lakes Basin.
19 See infra notes 29-50 and accompanying text.
20 See infra notes 57-88 and accompanying text.
21 See infra notes 90-101 and accompanying text.
22 See infra notes 102-17 and accompanying text.
23 See infra notes 161-83 and accompanying text.
24 See infra notes 184-227 and accompanying text.
25 See infra notes 84-100 and accompanying text.
26 No attempt is made here to catalog the entire legal framework of the Great Lakes. For a description of the vast array of agencies and organizations in Canada and the United States, see THE INTERNATIONAL JOINT COMMISSION, GREAT LAKES DIRECTORY (1976).
this regulatory maze are the physical characteristics of the lakes\(^\text{27}\) and the jurisdictional authority and concerns of two nations, two provinces and eight states. Under such restraints, confusion and conflict are often inevitable.\(^\text{28}\) To simplify matters, the scope of this note is limited to examining prospective diversion requests in a broad, but manageable legal and doctrinal framework under which this issue may be resolved.

A. United States

1. State Law

The international boundary between the United States and Canada traverses the middle of four of the five Great Lakes (Lake Michigan lies entirely within the territorial United States). According to article II of the 1909 Boundary Waters Treaty\(^\text{29}\) and the customary rules of international law, the Great Lakes are considered national waters.\(^\text{30}\) In other words, each sovereign retains jurisdiction and control over the use of all water on its respective side of the international boundary.\(^\text{31}\) In effect, however, the state governments maintain dominion or ownership of the water and lake beds within their own territorial limits\(^\text{32}\) subject to a superior federal power, particularly control over interstate commerce.\(^\text{33}\) Thus, under the Constitution, state regulation of water use is specifically derived from its police powers.\(^\text{34}\) Although the states have created numerous agencies to cope with particular aspects of Great Lakes resource management,\(^\text{35}\) they took a significant and controversial step toward acquiring

\(^\text{27}\) See supra note 6.

\(^\text{28}\) \text{Great Lakes Basin Commission, Appendix 1, Alternative Frameworks 303 (1976)} [hereinafter cited as Appendix 1].


\(^\text{30}\) See \text{generally} D. Piper, \text{The International Law of the Great Lakes 18-20 (1967)}.  

\(^\text{31}\) Id. at 19.

\(^\text{32}\) \text{Id. See, e.g., Ohio Rev. Code Ann. § 123.03 (Page 1978) which states in relevant part: [T]he waters of Lake Erie consisting of the territory within the boundaries of the State, extending from the southerly shore of Lake Erie to the international boundary line between the United States and Canada, together with the soil beneath . . . belong to the State . . . for public uses to which it may be adapted, subject to the power of the United States Government to public rights of navigation, water commerce and fishery and further subject to the property rights of littoral owners, including the right to make reasonable use of the waters in front of or flowing past their lands.}

\(^\text{33}\) U.S. Const. art. I, § 8, cl. 3.

\(^\text{34}\) U.S. Const. amend. X. \text{See generally Great Lakes Basin Commission, Appendix S20, State Law, Policies, and Institutional Arrangements (1976)} [hereinafter cited as Appendix S20].

\(^\text{35}\) For a survey of state powers, programs, policies and institutional arrangements, see
broad policymaking authority when they created the Great Lakes Basin Compact (Compact) and the Great Lakes Commission (Commission). The Council of State Governments classifies the Basin Compact as "advisory and recommendatory," but the provisions of article 1 of the Compact appear to vest the Commission with a significant amount of dormant or reserve power which to date has not been exercised. The member states, however, encountered considerable difficulty in obtaining the 1968 grant of congressional consent. It was clear to Congress that the purpose of the Compact's authors was to create an international agency with broad policymaking powers under the directives of state and provincial representation. Such an agreement, according to Congress, was a potential encroachment upon "substantive federal interests," namely, Congress' authority over a major navigable waterway and the delegated authority of the U.S. Department of State in the conduct of international affairs. The agreement that Congress eventually adopted contained a severability clause which effectively restated the Commission's role as solely a "consultative and recommendatory" agency and excluded provincial government participation—in effect, prohibiting the Commission from acting independently in international affairs. Moreover, the Commission was denied any preeminent role in management of the Great Lakes Basin.

State regulation of the Great Lakes is generally confined to police power prerogatives to regulate the health, safety and welfare of its citizens. In practice, this authority manifests itself in control of local water uses such as municipal, industrial and irrigational supplies. It is interesting to note that the states were originally empowered by Congress to regulate water pollution. This approach, however, proved to be ineffective and Congress subsequently shifted regulatory authority to the Fed-

Appendix S20, supra note 34, at 51-171.
26 Id. at 415 (art. IV).
28 Id.
29 Id.
30 Id.
31 Id. at 161.
32 Id.
34 M. Ridgeway, supra note 38, at 159.
35 See supra note 34 and accompanying text.
36 See generally Appendix S20, supra note 34.
38 See Case Comment, States May No Longer Bring a Federal Common Law Nuisance Action to Abate Interstate Water Pollution: City of Milwaukee v. Illinois, 7 Dayton L.
eral Environmental Protection Agency through the Federal Water Pollution Control Act Amendments of 1972. Furthermore, state attempts to encroach on federal authority have failed to win Congressional approval.

2. Federal Law

The U.S. Constitution has several provisions granting the federal government express authority to develop and manage national water resources. Chief among these enumerated powers are the commerce power, the treaty power and the compact consent power. General water resource policy is oriented toward accommodating "maximization of beneficial uses for the greatest number of persons to minimal interferences with the resources themselves and the ecosystems supported by them." In other words, federal authority promotes the general welfare of all citizens when the balance must be struck between development and conservation. This balancing also considers individual strivings on the one hand and the government’s stewardship responsibilities in maintaining the nation’s resources on the other.

a. The Commerce Power

As navigable waters, the Great Lakes are subject to the Congressional commerce power which includes the power to regulate the navigable capacity of the lakes. To make this control effective, the Supreme

Rev. 511, 513-14 (1982). The state approach failed for two reasons. First, almost half the states had failed to submit pollution standards four years after the deadline. Second, the statutory enforcement mechanisms failed to deter major violators. Id. at 514.


See infra notes 192-93 and accompanying text.

U.S. Const. art. I, § 8, cl. 3 (power to regulate interstate commerce).

U.S. Const. art. II, § 2, cl. 2 (delegating the treaty-making power to the President subject to the advice and consent of the Senate).

U.S. Const. art. I, § 10, cl. 3 (power to consent to interstate compacts).

APPENDIX S20, supra note 34, at 1.

Id.

Id.

The test for navigability is not whether waters are subject to the ebb and flow of tide, but whether they are navigable in fact. "When they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce . . . ." The Daniel Ball, 77 U.S. (10 Wall.) 557, 563 (1870).

As stated in Kaiser Aetna v. United States, 444 U.S. 164, 173 (1979):

Commerce includes navigation. The power to regulate commerce comprehends the control for that purpose, and to the extent necessary, of all the navigable waters of the United States which are accessible from a State other than those in which they lie. For this purpose they are the public property of the nation and subject to all the requisite legislation by Congress [quoting Gilman v. Philadelphia, 70 U.S.
Court has determined that Congress has not only the power to keep navigable waters open and unencumbered, but also the power to provide sanctions against navigable interference with these waters. The Court also stated, in *United States v. Appalachian Power Co.*, that federal control over navigable waters contemplates flood protection and recovery of improvement costs through utilization of power. The Court, in *Appalachian Power*, upheld a federal license to construct a dam in a navigable stream despite an argument that denial of the license was attendant to the legitimate exercise of state police powers. In *United States v. Twin City Power Co.*, the Court characterized the navigational power as a privilege to invoke "dominant servitude" which could be "asserted to the exclusion of any competing or conflicting [power]." The Court held that even though state law recognized that private owners had interests in navigable waters, the landowners had no right to compensation for federal improvements to navigation since Congress had complete power to preempt any other authority in this area.

Pursuant to its authority to regulate navigation, Congress has delegated primary authority to the Secretary of the Army to regulate "the use, administration and navigation of navigable waters" in the public interest. Outside of the Environmental Protection Agency, the Army Corps of Engineers (Corps), which is the implementing arm of the Secretary of the Army, represents the continuing and most pervasive presence in the Great Lakes Basin. The Corps maintains the navigable capacity of the lakes and ensures adequate supplies for public uses.

In addition to their navigational importance, the Great Lakes are utilized for consumptive uses in industry, agriculture and as drinking water, and such non-consumptive uses as recreation and fishing. In this sense,

(3 Wall.) 713, 724-25 (1866)].

* 311 U.S. 377, 426 (1940).
* Id. at 427.
* 350 U.S. 222 (1956).
* Id. at 224-25. See also United States v. Grand River Dam Auth. 363 U.S. 229 (1960)

where the Court stated:

["An interest [in navigable streams] is not compensable because when the United States asserts its superior authority under the Commerce Clause to utilize or regulate the flow of water of a navigable stream there is no "taking" of "property" in the sense of the Fifth Amendment because the United States has a superior navigation easement which precludes private ownership of the water or its flow.

* Id. at 231-32.
* Twin City Power, 350 U.S. at 226.
* See Proceedings, supra note 6, at 13.
* 67 The Boundary Waters Treaty considers water supply for domestic and industrial uses as primary to navigational purposes. See infra notes 96-97 and accompanying text.
the lakes are analogous to coal or ground water or any other natural resource subject to traditional commerce clause scrutiny. Generally, however, historical attempts by states to control natural resources have been invalidated by the Supreme Court on commerce clause grounds particularly when the control works to the benefit of local concerns. For example, in *Pennsylvania v. West Virginia*, the Court struck down a state statute limiting the export of natural gas in order to assure adequate supplies for in-state residents. In *Altus v. Carr*, the Court affirmed a lower court decision invalidating a state prohibition on the export of ground water. Applying the rationale of *Altus*, the Court in *Sporhase v. Nebraska* held that ground water, once withdrawn from the earth and available in the marketplace, is an article of commerce. In *Sporhase*, the Court struck down a Nebraska statutory provision that required the consuming state to grant a reciprocal right to withdraw and use water in Nebraska. The Court, however, recognized the state's legitimate conservation and preservation interests in scarce water resources, but concluded that Nebraska had failed to establish a close means-to-ends relationship between the effective total ban on exporting water and the purpose to conserve and preserve water supplies.

In recent years, the Supreme Court has taken a more deferential stance in reviewing non-discriminatory regulation of natural resources than it has in other areas of commerce. In *Minnesota v. Clover Leaf Creamery*, the Court upheld a state ban which included non-recycled plastic containers, but excluded paperboard containers. Despite an argument claiming that the ban was enacted for the benefit of local interests, the Court concluded that appreciable environmental benefits of energy and resource conservation outweighed any incidental burdens on interstate commerce.

The Court also rejected challenges to Montana's thirty percent coal

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69 262 U.S. 553 (1923).
72 Id. at 949-50.
73 Id. at 957-58.
74 Id. The *Sporhase* decision contained some interesting language on the interstate character of the Oglalla acquifer that supplies most of the irrigation water to western states. The Court noted that 80% of western water supplies are used for irrigation to produce agricultural products for worldwide markets. Thus, the Court concluded that there was a significant federal interest in conservation as well as for fair allocation of this diminishing resource. Id. at 953-54.
75 See Stewart, supra note 68.
77 Id. at 473.
severance tax in Commonwealth Edison Co. v. Montana. The tax was facially non-discriminatory since consumers within the state were taxed at the same rate, but discriminatory in effect since Montana exports ninety percent of its coal to other states. Eastern utility purchasers of the coal argued that Montana was exploiting its resource-rich, monopoly position by exporting tax burdens to other states. The Court, however, held that the tax was formally non-discriminatory and sustained the tax. The Court also emphasized its inability to measure the appropriate allocation of tax burdens on the ultimate consumer of the state's resources.

Beyond the commerce power, Congress has broad authority to manage the vast resources of federal lands and to preempt state laws which affect the use and development of those resources. Congress also has the power to tax mineral development and the use of common resources such as air and water. Congress has exerted its spending power to control pollution and waste disposal problems and to subsidize resource-poor states while compensating resource-rich states for compliance with federal development controls.

Thus, federal management of the Great Lakes is a pervasive power to regulate not only related navigational needs, but other uses which affect interstate markets. The Supreme Court, however, has recently displayed a willingness to uphold non-discriminatory state control of natural resources in the absence of federal preemption.

b. The Treaty Power

Treaties are contracts between sovereign countries which are considered the supreme law of the land under the U.S. Constitution. Valid treaties such as friendship, commerce and navigation treaties preempt

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77 Id. at 617-18.
78 Id. at 619.
79 Id. at 617-29.
80 Id. at 627.
81 U.S. Const. art. IV, § 3, cl. 2; id. at art. I, § 8, cl. 17.
83 U.S. Const. art. I, § 8, cl. 1.
85 See Stewart, supra note 68, at 256.
86 Id.
88 U.S. Const. art. VI, cl. 2.
any inconsistent state law. The treaty power "can limit, cancel, or prevent state water law or its implementation on international waters and Federal authorities may act to prevent this type of state action."92

Reciprocal navigation between Canada and the United States on the Great Lakes is guaranteed by the comprehensive Boundary Waters Treaty of 1909.93 This treaty "forever" guarantees free and open navigation of all navigable waters.94 However, each government retains the right to promulgate laws or regulations governing the use of waters within its own territory, provided the laws are applied "equally and without discrimination."95 Notwithstanding this guarantee, the treaty provides the following order of precedence for use of the boundary waters: (1) uses for domestic and sanitary purposes; (2) uses for navigation; and, (3) uses for power and irrigation.96 Despite the secondary importance of navigation, each government may divert water within its own territory, provided the other government does not object on the ground of material injury to navigational interests within its territory.97

As of 1981, there were over forty bilateral Great Lakes treaties and agreements between the United States and Canada covering such diverse areas as lake levels,98 fishery management,99 navigational improvements100 and boundary waters pollution.101 These international agreements represent the continued, binding commitment of both sovereign countries to fulfill mutual interests and, as such, are accorded primary importance in Great Lakes management.

92 See APPENDIX S20, supra note 34, at 5.
93 Boundary Waters Treaty, supra note 29.
94 The agreement extends to Lake Michigan and all canals connecting the boundary waters. Id. at 2449 (art. I).
95 Id.
96 Id. at 2451 (art. VIII). This article also provides that any use which materially conflicts or restrains any other use which is higher in order of precedence is forbidden.
97 Id. at 2449 (art. III). See also D. PIPER, supra note 30, at 50.
c. The Compact Consent Power

Although states generally have the power to enter into reciprocal arrangements without congressional approval, they may not form any combination tending to increase their political power as states or interfere with the supremacy of the federal government. For example, the Supreme Court upheld the constitutionality of a multistate tax compact which lacked congressional consent in *U.S. Steel Corp. v. Multistate Tax Commission*. The Court's opinion focused on the substance and effect of the agreement, not on its form. Despite U.S. Steel's claim that the compact violated the consent and commerce clauses and would increase the risk of double taxation, the majority determined that the compact would promote uniformity of state taxes on multistate corporations and decrease the risk of double taxation. The majority concluded that absent a threat of encroachment or interference through enhanced state power, the existence of a federal interest in apportioning multistate income is irrelevant. Thus, the fear that interstate agreements will encroach upon federal supremacy is related, in part, to the federalist framework and to the efficient allocation of resources corresponding to the objectives behind antitrust laws.

On the other hand, an interstate compact with congressional approval has the status of federal law and preempts any existing or subsequently enacted inconsistent state law. The question has arisen whether congressional consent merely removes a constitutional ban to otherwise permissible concerted state action and thereby exhausts Congress' authority to subsequently revoke or amend the agreement. In 1855, the Court held that Congress may enact legislation incompatible to a compact which had obtained prior congressional consent. The Court relied on the rationale that one Congress may not impair the Constitutional legislative authority of a subsequent Congress. Furthermore, congressional understanding as to the intent of the compacting states is con-

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103 Id.
104 Id. at 467-78.
105 Id. at 472-76.
106 Id. at 479-80 n.33.
107 See infra note 205 and accompanying text.
111 Id. at 433.
trolling upon judicial review. 112

Interstate compacts which involve foreign sovereign participation raise the added dimension of the power to conduct international relations. Previously, state cooperation with foreign governments required prior approval of the U.S. Department of State on modes of cooperation and the type of endeavour intended to be pursued. 113 This concern is precisely why the Great Lakes Compact failed initially to win congressional approval. 114 Few such compacts have been enacted and only for rather narrow, non-political and non-economic purposes. 115

Thus, interstate compacts afford an additional layer of state control prerogatives over regional resources, but are still within congressional oversight to revoke or amend the compact's directives. In fashioning interstate compacts, state participants must be sensitive to the uniformity of regulation and efficient allocation of resources within the federalist framework. The Supreme Court has encouraged states to resolve water disputes through interstate compacts, 116 but such compacts must still survive commerce clause scrutiny. 117

B. Canada

Although not as comprehensive as the U.S. Constitution, the British North American (BNA) Act of 1867 118 created the foundation for the Dominion of Canada by uniting the four original provinces: Ontario, Quebec, Nova Scotia and New Brunswick. The BNA Act has subsequently provided the bond between the provinces which compose the present day Canadian Federation. 119 Among its more significant provisions, the BNA Act outlines the distribution of power between the Dominion and the

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114 For a discussion of the international question in the Great Lakes Compact consent hearings, see M. RIDGEWAY, supra note 38, at 158-69.


117 See Sporhase, 458 U.S. at 960.


provinces.120

The scheme adopted in the BNA Act is fundamentally different from the framework of the U.S. Constitution. Each level of government is given exclusive legislative authority defined by an enumerated list of subjects found in sections 91 and 92 of the BNA Act.121

1. Provincial Law

Similar to the situation in the Great Lakes states,122 the jurisdictional boundary of Ontario, the single Great Lakes province,123 extends as far as the international boundary of the Great Lakes.124 Ontario has also determined that any provincial regulation affecting the water level of the Great Lakes “shall conform to any order or recommendation” of the International Joint Commission pursuant to the Commission’s authority under the Boundary Waters Treaty.125

Section 92 of the BNA Act lists the chief provincial powers giving the provinces exclusive authority to make laws in 16 enumerated areas.126 These areas include the management and sale of public lands belonging to the province,127 direct taxation within the province in order to raise revenues for provincial purposes128 and the establishment of public works which are located entirely within the province.129 Provincial powers are as comprehensive as those of the federal government within these areas and both units of government can delegate such authority to inferior units of government, but not to each other.130

Under section 92(5) of the BNA Act and the Canadian Supreme Court’s holding in R. v. Moss,131 dominion over the beds of the Great Lakes vests within the provincial government. The Great Lakes them-

120 BNA Act, 30 & 31 Vict. 3, 16-18, §§ 91, 92.
121 Crommelin, Jurisdiction Over Onshore Oil and Gas in Canada, 10 U. BRIT. COLU M. L. REV. 86, 87 (1975).
122 See supra note 32 and accompanying text.
123 Although Quebec is within the Great Lakes watershed and its participation at the Mackinac Island Conference was essential, Quebec’s jurisdiction is limited to the upper portion of the St. Lawrence Seaway. For purposes here, the discussion is confined to Ontario provincial law recognizing that Quebec’s interest in Great Lakes decision-making is equally compelling.
124 8 ONT. REV. STAT., ch. 497, § 9 (1980).
126 BNA Act, 30 & 31 Vict. 3, 17-18, § 92.
127 Id. § 92(5).
128 Id. § 92(2).
129 Id. § 92(10).
selves are also considered provincial property. In the *Fisheries* case,\textsuperscript{132} the Dominion argued that the large fresh water lakes, particularly the Great Lakes, fell within the Dominion's authority over trade and commerce, defense, navigation and shipping and inland fisheries and therefore, belonged to the Dominion.\textsuperscript{133} Although the Privy Council avoided the issue, the Supreme Court of Canada was clear in determining that all waters within a province, except those within public harbors, vest to that province.\textsuperscript{134}

Regional provincial interests are a critical issue in the recent Canadian constitutional debates particularly in view of the sustained threat by Quebec to secede from the Dominion Federation.\textsuperscript{135} The resource-rich western provinces have already taken significant steps toward control of provincial resource development as well as measures to secure a greater share of resource revenues.\textsuperscript{136}

Recent Canadian Supreme Court decisions, however, have curtailed provincial efforts to capitalize on resource development. In *Canadian Industrial Gas & Oil v. Saskatchewan*,\textsuperscript{137} the Court held that an attempt by Saskatchewan to impose a mineral tax and royalty surcharge on provincial oil production was an indirect tax and therefore *ultra vires* under section 92(2) of the BNA Act.\textsuperscript{138} The Court also reasoned that such taxes were also beyond provincial power since they interfered with interprovincial and international trade and commerce.\textsuperscript{139} Similarly, in *Central Canada Potash v. Saskatchewan*,\textsuperscript{140} the Court struck down provincial regulations governing the marketing of potash through fixed minimum selling prices in which the only significant market was the export market. Saskatchewan characterized the measure as an attempt to conserve potash, but the Court determined the real effect was to regulate extra-provincial trade.\textsuperscript{141} The Court, nevertheless, was careful to point out that the consequence of invalidating the regulations was not to shift the distribution of power to the federal government, but merely a determination of the limitation on provincial authority.\textsuperscript{142} Finally, in *Seamen's Interna-
ional Union v. Crosby International Services, the Court provided an important benchmark in the current dispute between federal and provincial control of offshore resources. Although the Court concentrated upon jurisdiction of the Canadian Labor Relations Board, the case "serves as a reminder that the legal regime for [resource] development on the Canadian continental margin, be it federal or provincial, will not displace the existing framework which determines the respective spheres of federal and provincial jurisdiction."

2. Federal Law

Section 91 of the BNA Act lists the chief federal or Dominion powers. In contrast to the U.S. Constitution, the central government is vested with residual authority beyond the explicit powers granted to the provincial legislatures. The enumerated list simply provides "for greater certainty, but not so as to restrict the generality" of the residual clause.

Among the more significant exclusive powers given to the Dominion are the powers to regulate trade and commerce, to raise money by any mode or system of taxation, and to exercise authority over navigation, shipping and sea coast and inland fisheries. Although the BNA Act contains no express treaty-making provision, there is little uncertainty where the power to negotiate treaties resides. Originally, it was the function of the Crown acting through the British government, but the authority has gradually fallen within the control of the Dominion as a result of the growth of Dominion self-government.

There is uncertainty, however, concerning the implementation of the terms of treaties. Section 132 of the BNA Act appears to resolve the question by granting the Dominion "all powers necessary or proper for performing the obligations of Canada or of any province . . . towards foreign countries arising under treaties." Nonetheless, the possibility exists that the Dominion, in performing this function, might infringe on exclusive provincial authority. Conversely, it has been postulated that the

145 BNA Act, 30 & 31 Vict. 3, 16, § 91.
146 Id.
147 Id. § 91(2).
148 Id. § 91(3).
149 Id. § 91(10).
150 Id. § 91(12).
151 R. Dawson, supra note 119, at 96.
152 Id.
153 BNA Act, 30 & 31 Vict. 3, 24, § 132.
154 R. Dawson, supra note 119, at 96.
provinces are fully competent to enter into transnational agreements that do not have international law consequences.\textsuperscript{155}

It is evident that the Canadian constitutional framework is very different from its U.S. counterpart. The limits of federal power cannot be resolved without careful consideration of the exclusive powers of the respective governments outlined in the BNA Act. Perhaps the most significant difference from the United States is the exclusive right of the provinces to make laws concerning "the management and sale of public lands belonging to" the provinces.\textsuperscript{156} This right, in combination with substantial resource ownership, provides an effective counterforce to the Dominion's commerce power.\textsuperscript{157}

Under the current proposed constitutional resolutions, the provinces would enjoy concurrent authority to regulate the exportation of non-renewable natural resources, forestry resources and electrical energy.\textsuperscript{158} In the event of conflict, federal law would prevail.\textsuperscript{159} The provinces would also be prohibited from discriminatory treatment in price-setting and taxation between export and interprovincial resource markets. The proposals would also expressly provide for exclusive provincial authority to control exploration, to regulate production and to develop and manage facilities for producing electrical energy.\textsuperscript{160}

III. HISTORICAL DEVELOPMENTS: THE INTERNATIONAL JOINT COMMISSION AND THE CHICAGO DIVERSION

Currently, the Great Lakes states and provinces hold nothing more than advisory status in water resource management of the Great Lakes Basin. In light of diversion requests, the states and provinces, from creation of the Great Lakes Basin Compact to the Mackinac Island Resolution, sought individual representation in governing the Great Lakes' resources.

Current disputes regarding the use of the Great Lakes' boundary waters are settled by the International Joint Commission (IJC or Commission), an investigatory and quasi-adjudicatory agency created by the 1909 Boundary Waters Treaty (1909 Treaty).\textsuperscript{161} The IJC's capability and capacity to deal with future diversion requests is well illustrated in the long

\textsuperscript{155} Id. at 98 quoting E. McWhinney, Judicial Review 156 (1969).

\textsuperscript{156} BNA Act, 30 & 31 Vict. 3, 17, § 92(5).

\textsuperscript{157} Crommelin, supra note 121, at 143.


\textsuperscript{159} Id.

\textsuperscript{160} Id.

\textsuperscript{161} See Boundary Waters Treaty, supra note 29, at 2449-50 (art. III). For a dated, but comprehensive treatise on the Commission, see C. Chacko, The International Joint Commission (1968).
and persistent dispute concerning the diversion of water from Lake Michigan into the Chicago Sanitary and Ship Canal and perhaps explains the reluctance of the two governments to utilize the IJC.162

Before the signing of the 1909 Treaty, the Chicago Sanitary District had obtained permission from the U.S. Secretary of War for the diversion in order to flush sewage from the canal and to maintain its navigable depth.163 The diversion was considered in the 1909 Treaty negotiations, but no specific provision dealing with the problem was incorporated in the final document.164

Chicago frequently sought both the Secretary and Congress' approval to increase the amount diverted which prompted the federal government to seek injunctive relief to prohibit Chicago from diverting in excess of the originally authorized amount.165 The city of Chicago argued that the federal government had given its assent to the construction and improvement of the sewage canal and therefore, the government was estopped from denying the city the power to utilize the canal in the most effective way to eliminate the risk of a health hazard.166 The government argued that allowing Chicago to proceed with the diversion would result in lower lake levels and alter the navigable capacity of the lakes.167 A unanimous Court held that the United States had not only the power to prohibit navigational obstructions in interstate commerce, but also an affirmative obligation to uphold the provisions of the 1909 Treaty and therefore enjoined Chicago from diverting the unauthorized excess.168

Shortly thereafter, six of the Great Lakes states filed suit to enjoin Illinois and the Chicago District from the diversion entirely.169 Asserting their riparian interests, the plaintiff states argued that the diversion had caused serious injury to both commercial navigation and private property.170 The states also averred that the diversion was not justified for

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162 The dispute has extended since the beginning of this century and has involved all branches of government. This note provides only a brief summary of the major events. For a detailed discussion from which this summary is taken, see M. RIDGEWAY, supra note 38, at 169-79; D. PIPER, supra note 30, at 90-103.

163 The initial diversion was less than 5000 cubic feet per second (c.f.s.). This amount represents a net loss of water from the Great Lakes Basin since the water eventually flows into the Mississippi River.

164 See Boundary Waters Treaty, supra note 29.

165 Sanitary Dist. of Chicago v. United States, 266 U.S. 405 (1925).

166 Id. at 412.

167 Id. at 423.

168 Id. at 425-26. The Supreme Court stated that the diversion required the approval of the two governments and the International Joint Commission. Id. at 426.

169 Wisconsin v. Illinois, 278 U.S. 367 (1929). Several states had sued individually, but were joined in this action. The Court had referred the diversion issue to a Special Master for fact finding, conclusions of law and recommendations for a decree. 271 U.S. 650 (1926).

170 278 U.S. at 400.
navigational purposes and was contrary to Congress’ power to remove obstacles from interstate commerce and discriminated in favor of Illinois to the detriment of the other Great Lakes states. Rejecting any contention of a legitimate exercise of Illinois’ police power, the Court held that the diversion was impermissible, and ordered the District to gradually reduce the diversion upon implementation of an alternative sewage plan.

In 1957, the states filed an additional suit against Illinois requesting the Supreme Court to reduce the diversion or limit Chicago’s domestic pumpage in order to reduce the total effect on navigation on the lakes. The State of Illinois replied with a suit to prohibit the states from interfering in a new water project that would require additional diverted water. The parties eventually agreed to accept a Special Master’s diversion limit which the Court decreed without considering the legal arguments.

In short, the Chicago diversion controversy represents a problem not only of considerable scientific complexity, but a problem of protecting myriad interests of states and individuals as well. The resolution of the controversy appears to call for a uniquely qualified forum where all interests can be heard.

Outside the judicial arena, the only governmental agency remotely competent to handle these sensitive issues in Great Lakes management is the International Joint Commission. However, from the states’ perspective, a number of legal barriers exist in the Commission’s institutional framework. First, the IJC is an independent international agency of the U.S. and Canadian federal governments without state representation. The Commission undertakes studies or matters of conflict only upon request of either government. Furthermore, the Commission’s reports are merely

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171 Id. at 410, 415.
172 Id. at 420-21. The case was again referred to a Special Master to determine the method and period required for an alternate plan. Id. at 421. The following year the Court adopted the Master’s reported results and reduction scheme. 281 U.S. 179 (1930). The reduced diversion was to average no more than 1500 c.f.s. (approximately one-third the amount the Secretary had originally authorized), an amount the Court held would not affect the interests of the plaintiff states. Id. at 199.
173 360 U.S. 712 (1959). The Court agreed to reconsider the entire issue and appointed a Special Master to file a report. Id. at 714.
174 388 U.S. 426, 427 (1967). Additional proceedings were filed in 1979 to modify provisions of the decree and the Court again ordered a report from a Special Master. 441 U.S. 921 (1979). The decree was modified to assure that the District’s diversion did not exceed authorized limits. 449 U.S. 48 (1980).
175 Note that Arkansas and Missouri intervened as beneficiaries in the 1959 case in order to protect their commercial interest in the diversion. Wisconsin v. Illinois, 278 U.S. at 420.
176 See supra note 175.
177 See supra notes 161-62 and accompanying text.
recommendations and are not binding on either party. Second, neither government has chosen to refer the issue of the Chicago diversion controversy to the Commission. The Commission is composed primarily of scientific experts whose functions have largely been investigative. To impose the additional burden of resolving claims would undoubtedly detract from its overall effectiveness as a neutral investigative body. Third, if article II of the 1909 Boundary Waters Treaty applies, what are the limits of "material injury?" As one author suggests, the 1909 Treaty provides no criteria for determining at what point a diversion would produce "material injury" to Canadian interests. Furthermore, the 1909 Treaty provides no guidance as to what weight the United States must accord to Canadian protests.

The IJC is also not a creative agency, but rather a reactive one. A six-month cooperative study to consider the need for and formulation of an improved management structure for the Great Lakes Basin concluded that the Commission has neither the authority nor the resources to assume planning functions. The Commission's contribution has largely been the resolution of problems on a case by case basis which captured sufficient governmental interest to result in the required reference. Thus, the Commission does not provide a mechanism for the economic or resource development of the Great Lakes Basin nor has it met the needs

178 See D. Piper, supra note 30, at 79.
179 The Commission has considered the Chicago diversion in several economic and environmental evaluation studies of the Great Lakes Basin. In 1977, the Commission established the International Great Lakes Diversions and Consumptive Uses Board to investigate the effects of existing and proposed diversions within, into, or out of the basin. (In the Board's current diversion study, it has chosen five alternatives for detailed hydrologic and economic evaluation, one of which assumes no water would go through the three principal diversions now existing; the Chicago, Long Lake/Ogoki, and the Welland Canal. The study will include an estimate of the time at which the diversion alternatives would become totally impractical due to lowered lake levels caused by increasing consumptive uses). In 1979, the Commission also established the Great Lakes Levels Advisory Board responsible for advising the Commission on activities that might have a significant impact on water supplies, levels and flows of the Great Lakes. The International Joint Commission, Annual Report (1977, 1980).
180 See D. Piper, supra note 30, at 110.
181 See Boundary Waters Treaty, supra note 29, at 2449 (art. II).
182 D. Piper, supra note 30, at 95.
183 Id.
185 Dworsky, supra note 184, at 119.
186 Id. A reference from either government is the initiating mechanism upon which the Commission assumes its investigative and recommendatory functions as specified in the terms of the reference. Id.
and desires of the Great Lakes states compact.\textsuperscript{187}

IV. DECISIONMAKING IN THE GREAT LAKES BASIN: FEDERALISM, ECONOMIC ISSUES AND NATIONAL POLICY

The resources of the Great Lakes Basin provided the incentive for enormous manufacturing and industrial development in the region. The region's water resources presently support one-fifth of the U.S. population and one-quarter of its industry.\textsuperscript{188} The expansion of various uses of the Great Lakes has underscored not only the physical limits of the basin, but the conflict between those limits and other uses.\textsuperscript{189}

Over the past decade, the basin states have experienced a drastic decline in economic prosperity.\textsuperscript{190} The decline has been accompanied by a dramatic shift of population and industry to the sun belt, the southern tier of states stretching from California to Florida.\textsuperscript{191} The shift in population has accordingly resulted in a shift of regional political power in Congress.\textsuperscript{192} According to one observer, the political shift will favor those areas most inclined to seek diversion requests from the Great Lakes.\textsuperscript{193} William Milliken, former Governor of Michigan, speaking to state and provincial leaders at the 1982 Great Lakes Water Resources Conference stated that the abundant supply of freshwater resources should serve as the cornerstone of economic recovery in the Great Lakes region provided that local leaders secure a greater voice and cooperate among themselves.\textsuperscript{194} Milliken's comment also reflects the concern that various re-

\textsuperscript{187} M. RIDGEWAY, \textit{supra} note 38, at 158.
\textsuperscript{188} Statement of Marlene S. Evans, President of the International Association for Great Lakes Research to the Science and Technology Committee, Subcommittee of Natural Resources, Agricultural Resource and Environment (Feb. 25, 1982), \textit{reprinted in INTERNATIONAL ASSOCIATION FOR GREAT LAKES RESEARCH, LAKES LETTER 15} (Mar. 1982) (available in University of Michigan Great Lakes Library) [hereinafter cited as \textit{LAKES LETTER 15}]. “More than 59% of the steel production, 65% of the automobile production, and 70% of the iron ore production in the United States is conducted in the . . . basin.” \textit{Id.} at 16.
\textsuperscript{189} Dworsky, \textit{supra} note 184, at 105.
\textsuperscript{190} \textit{See} \textit{LAKES LETTER 15, supra} note 188, at 42. Unemployment in the midwestern steel industry stands at 30% in the auto industry, 22%; coal employment fell 46% reflected by the rise in production in the western Great Plains states. Since 1950, Detroit has lost 35% of its population and Pittsburgh, 37%. \textit{Id.}
\textsuperscript{191} Between the years 1970 and 1980, western and southern states increased their population by approximately 22% while the Great Lakes averaged approximately a 4% increase. \textit{See DEP'T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES 10-11} (1981).
\textsuperscript{192} As a result of population shifts and subsequent Congressional redistricting, California, Florida, Texas and Arizona picked up a total of ten Congressional seats while Illinois, Indiana, Michigan, Ohio, Pennsylvania and New York lost a total of thirteen seats. 40 CONG. Q. WEEKLY REPORT 890 (Apr. 17, 1982).
\textsuperscript{193} \textit{See} Quade, \textit{supra} note 1, at 1067.
\textsuperscript{194} Proceedings, \textit{supra} note 6, at 12.
source management structures in the basin have not had the impact on governmental decision-making that the states have desired. The question remains, however, whether the states and provinces can assume broad authority and if so, whether they are economically and politically capable to do so.

The political climate is certainly ripe for the states and provinces to establish broad authority over the Great Lakes. President Reagan's advocacy of a "new federalism" calls for the transfer of numerous federal programs to the states, fundamentally altering the allocation of governmental power. Canada's recently proposed constitutional reforms recognize provincial self-determination in the control of natural resources. One U.S. Department of Interior official testified before the Water Resources Subcommittee that the Reagan Administration is formulating a national water policy "grounded on the premise that water rights belong to the states."

Responding to the policy shift, Representatives Berkeley Bedell of Iowa and Ralph Regula of Ohio have introduced legislation that would prohibit the sale or transfer of interstate water without the consent of all states within the drainage basin. Such measures, while undoubtedly solidifying the Great Lakes states' position, are likely to produce regional polarity and raise serious constitutional questions.

These concerns include the South Dakota sale, Golden supra note 1, at 80, and the threat of future Great Lakes diversion proposals and the Supreme Court's decision in Sporhase v. Nebraska, 458 U.S. 941 (1982).

In 1981, the federal government closed a number of federal agencies concerned with research and planning activities for the Great Lakes including the Argonne National Laboratory, the Coastal Zone Management Programs and the Water Resources Center. LAKES LETTER 15, supra note 188, at 14. These closures resulted in a funding loss of more than $9 million. Id. Total funding in 1981 for Great Lakes Research was approximately $30 million with an estimated $27 million reduction in 1982. Id. at 20-21. No effort has been made to transfer these activities to state agencies or universities. Id. at 21.


The text of Representative Bedell's bill states in relevant part:

[N]o state shall sell or otherwise transfer for use outside of such state, water which is taken from any river or other body of surface water which is located in or which passes through more than one state or any aquifer or other body of ground water which underlies more than one state unless: (1) there is in effect an interstate compact (A) between the states in the drainage basin of such river or other body of surface water or (B) between the affected states in the case of an aquifer or other body of ground water which governs such sale or transfer, and (2) all the states which are parties to such compact consent to such sale or transfer.


See generally supra notes 51-112 and accompanying text.
One of the constitutional concerns is a theoretical notion that the states might achieve some level of autonomous authority or sovereignty, relative to the federal government. Neither the constitution itself nor the framers' debates offer much guidance on the definition of the relative powers of state and national governments. Instead, the Constitution enumerates the national powers at length leaving to the states the unenumerated reserve power in the tenth amendment. If anything is to be learned from the history of centralized government, it is the faith and confidence that has been placed in this structure to promote and protect the general welfare of the public. Thus, the new federalism debates should focus upon public welfare, not on the protection of the states as entities.

One commentator proposes the assignment of power within the federal framework according to the principles and interests of individual liberty. For example, the management of public lands and natural resources in the West has evolved into a bitter conflict between western states and the federal government. This conflict is popularly known as the Sagebrush Rebellion. Western states, in effect, have adopted legislation calling for the transfer of ownership of these lands to the states based on the principle of states' rights. According to the individual liberty analysis, the states should rightfully assume authority over private benefits in public lands provided others do not have to pay the costs. Any shift of complete authority, however, would be at the expense of "individual liberty to the extent that federal [lands] like the national parks and wilderness areas serve an essential function of connecting Americans with the roots of their belief in individual freedom." The Great Lakes states' proposal to impose autonomous authority over the lakes' resources extends similarly beyond the authority over private benefits and exposes the risk of placing regional interests ahead of national public interests.

The other constitutional concern turns predominantly on the commerce clause. It is under this authority that the states, with increasing judicial deference, may achieve a greater level of freedom to tax, regulate

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203 Id. at 871.
204 Id. at 883.
205 Id. at 900.
207 Id. at 849.
208 Huffman, supra note 202, at 900.
209 Id. at 901.
or limit the development of natural resources within their borders.\textsuperscript{210} As one commentator suggests, the states have exceptionally strong interests in controlling their natural resources, an interest which the Court must recognize as long as the states' measures are non-discriminatory and affect others only through the marketplace.\textsuperscript{211}

The scrutiny the states must overcome to defeat regional transfers of water parallel the allocative efficiency goals of antitrust law.\textsuperscript{212} For example, consider the Great Lakes states' and provinces' monopoly position by assuming that the states are unwilling to sell their product—water, or at least unwilling to sell it at the cost arid states or provinces are willing to pay. In a competitive market, competition would force the price of water down to the cost of producing or transferring plus a reasonable market return. Thus, other water sellers would expand output to a point where additional transfers of water would remain profitable. In a monopolistic market, however, the price of water will rise forcing potential buyers to consider the costs of alternatives. In the present case, for example, western farmers might switch to crops demanding less irrigation or possibly foregoing crop production altogether. Without federal assistance, the consequences for the nation's food production would be potentially disastrous. This is precisely the type of situation the antitrust laws were designed to remedy and precisely why a Great Lakes compact with broad powers would not survive commerce clause and compact consent scrutiny.\textsuperscript{213}

Taking the economic analysis one step further, the major problems confronting the water resources of the Great Lakes are related to use,

\textsuperscript{210} See Stewart, supra note 68, at 242. The Court's deference to state regulations was particularly apparent in Reeves, Inc. v. Stake, 447 U.S. 429 (1980). In that case, the Court upheld a state regulation that favored state residents in cement sales from a plant that was owned and operated by the state. Id. at 447. The Court avoided commerce clause scrutiny by invoking the market participant exemption first articulated in Huges v. Alexandria Scrap Corp., 426 U.S. 794 (1976). Reeves, 447 U.S. at 440. The implication is that the decision in Reeves will lead to the possibility of a natural resource exemption to commerce clause analysis permitting states to hoard their own natural resources. The Court, however, recognized that the rule was not universally applicable, but instead relied on the need to balance state and national interests in maintaining a free flow of natural resources. Id. See Note, The Commerce Clause and Federalism: Implications for State Control of Natural Resources, 50 Geo. Wash. L. Rev. 601 (1982). The Court recently distinguished Reeves in New England Power v. New Hampshire, 455 U.S. 331 (1982). New Hampshire had sought to prohibit New England Power from selling hydroelectric energy outside the state. Id. at 339. The Court held that absent authorizing legislation, the Commerce Clause precludes a state from granting residents a preferred right of access to privately owned or produced natural resources. Id. at 338-40. The Court invalidated the ban as simple economic protectionism and confined the Reeves holding to state-produced products. Id. at 338-39 n.6.

\textsuperscript{211} Stewart, supra note 68, at 243.


\textsuperscript{213} See generally supra notes 57-82 and 102-17 and accompanying text.
such as satisfying the numerous water use demands. Resource economists approach the problem as one of conflicts between water users, economic externalities inherent in water development, environmental impacts and conservation.\textsuperscript{214} To illustrate with a benefit-cost analysis: even if all primary and secondary benefits of a diversion proposal are calculable and determined on a regional basis, "the incidence of the costs" of the project will still affect its evaluation from a regional perspective.\textsuperscript{215} To simplify, a benefit-cost analysis considers the benefit to be the price that beneficiaries of a project would be willing to pay for the project's output, whereas the cost is the value of resources consumed for the project.\textsuperscript{216} Thus, the benefit-cost ratio is simply the dollar amount of benefit over the dollar amount of cost. A benefit-cost ratio of less than one from a national perspective is quite attractive to one region if most of the benefits accrue to the residents of that region while the costs are distributed throughout the country at large.\textsuperscript{217} On the other hand, a proposal with a ratio greater than one from the nation's viewpoint is equally unattractive for a region that must bear most of the costs.\textsuperscript{218} For example, suppose farmers would be willing to pay ten dollars for a unit of water while the cost to the Great Lakes states or provinces would be twenty dollars due to lost navigational and electrical generating revenues. The farmers, however, can produce forty dollars of crops per unit of water cost. If the federal government were to authorize such a transfer, the nation would benefit in greater proportion than the loss to the regional interests of the Great Lakes. Thus, the Great Lakes states and provinces are asked to bear the cost of a project that appears to have a benefit-cost ratio of less than one from the region's perspective, but a ratio of greater than one on a national basis.

Nonetheless, if market conditions parallel predictions, the solution would demand a common national, not regional market. Difficult trade-offs are necessary; if the states and provinces do not recognize the national need, the federal governments will have to preempt state and provincial prerogatives.\textsuperscript{219} Indeed, the states and provinces would enhance their stature if they displayed an awareness of national and international needs during the predicted resource crisis.\textsuperscript{220}

From a political perspective, assuming that the traditional federal-

\textsuperscript{214} See F. BUTRICO, WATER RESOURCES MANAGEMENT IN THE GREAT LAKES BASIN 74 (1971).
\textsuperscript{215} Id.
\textsuperscript{216} See Jaffe, Benefit-Cost Analysis and Multi-Objective Evaluation of Federal Water Projects, 4 HARV. ENVTL. L. REV. 58, 59 (1980).
\textsuperscript{217} Id.
\textsuperscript{218} Id.
\textsuperscript{219} See Lyons, Federalism and Resource Management, 12 ENVTL. L. 931, 943 (1982).
\textsuperscript{220} See C. HOWE & K. EASTER, supra note 13, at 20.
state relationship remains intact, the influence of the two provincial and eight Great Lake state governments will continue to be of paramount importance in future decisions affecting the basin. The fear, however, is that the federal government will underwrite massive diversion projects to the detriment of not only the basin states, but Canadian interests as well.221 The question then becomes who shall bear the cost when such proposals become economically advantageous.

The states might argue that the utility of economic return as a public objective is too narrow and fundamentally misleading, particularly when applied to a resource as enormous and complex as the Great Lakes. Without sufficient regional control, important societal objectives other than economic return may be overlooked or given shorthanded consideration. Thus, the desirability of a diversion should depend on alternative factors such as relieving local unemployment, maintaining the integrity of the basin ecology, or stimulating the region's economy.222 The underlying rationale of the states, therefore, is to provide a mechanism to insure an adequate flow of information required to make such a decision and that the Great Lakes region will have a share in determining the eventual outcome.

It must also be recognized that the independent sovereign status of the United States and Canada mandates that the states and provinces cannot settle international disputes on their own volition, although the provinces, in theory, have limited authority to enter into treaties. Yet, some level of state and provincial representation is not only politically desirable, but is also essential if some modicum of cohesive management and planning in the basin is to succeed. If decision-making regarding the use and management of the Great Lakes or any interstate resource is to remain responsive to varying interests, decisions must be based on both diverse inputs of information and representation.

One study has already addressed the question of optimum resource management for the U.S. portion of the Great Lakes.223 The author concluded that no institution is presently meeting the need for integration of public authorities regarding the use and development of the Great Lakes Basin.224 This need is critical since the primary issues confronting a basin-wide institution are the "conflicting goals based upon various values and public preferences expressed and supported by different political constituencies."225 Since these issues are particularly adaptable to the political process, the chief function of a proposed basin-wide agency should

221 See Focus On Great Lakes Water Quality, supra note 4, at 8.
223 See Appendix 1, supra note 28, at 304.
224 Id.
225 Id.
be to outline policy and the effective means for its implementation.\textsuperscript{226} The question of representation is crucial. The interests of the states, the provinces, the federal governments, and the basin residents must be considered in future decisionmaking.\textsuperscript{227}

Perhaps the only reasonable approach to satisfy these diverse interests, in light of the legal and political obstacles, is a fully integrated federal-interstate compact where the federal role remains largely coordinative.\textsuperscript{228} As part of a trend toward intergovernmental relations, interstate compacts have arisen in recognition of state interests, although certain special interests and the lure of federal funds have also had immeasurable effects.\textsuperscript{229} The growth of compacts as an institution, however, "is taking place in a somewhat legally undefined and politically uncharted area of our constitutional system"\textsuperscript{230} and therefore requires closer supervision.

One governmental study has divided the legal and political criteria concerning the merits of interstate compacts into six categories.\textsuperscript{231} First, an interstate compact must be endowed with adequate legal and administrative authority. Even without congressional consent, the Supreme Court has upheld the constitutionality of a multistate compact to impose interstate taxes, a power concededly beyond that which any member state might exercise independently.\textsuperscript{232} With consent, express conferral of federal powers may cure any defects in state authority.\textsuperscript{233} If the federal government participated as a signatory party, the compact would essentially attain the status of a federal agency and would, therefore, possess powers as broad as Congress delegates.\textsuperscript{234}

Second, the creation, implementation and alteration of a compact plan must be flexible and unencumbered in order to adapt to regional physical and political changes.\textsuperscript{235} There is evidence that highly complex agreements can be negotiated with impressive swiftness.\textsuperscript{236} Acquiring the necessary acceptance of eight state, two provincial and two federal governments for a Great Lakes compact, however, would enhance opportunities for delay and frustration. Such weaknesses might be obviated by ex-

\textsuperscript{226} Id.
\textsuperscript{227} Id.
\textsuperscript{228} The Great Lakes Compact may provide the structural framework for a broader Federal-interstate compact. See generally supra notes 36-44 and accompanying text.
\textsuperscript{229} See M. RIDGEWAY, supra note 38, at 293.
\textsuperscript{230} Id.
\textsuperscript{231} See J. Muvs, supra note 109, at 355-70.
\textsuperscript{232} Multistate Tax Comm'n, 434 U.S. 452 (1978).
\textsuperscript{233} See J. Muvs, supra note 109, at 359.
\textsuperscript{234} Id.
\textsuperscript{235} Id.
\textsuperscript{236} Two examples are the Delaware River Basin and Susquehanna River Compacts discussed in J. Muvs, supra note 109, at 117-202.
press congressional policy concerning interstate resource compacts and liberalization of the ratification and consent process.\footnote{237 Id. at 360-61.}

Third, interstate compacts must provide for public participation.\footnote{238 Id. at 362. The need for public participation reflects a concern that compacts, like other institutional arrangements, must improve public access to governmental decisionmakers. This might be accomplished through public hearings, advisory committees or other channels. Id. at 361-62.} 

Fourth, compacts must be able to coordinate and implement federal, state, local and private interests.\footnote{239 Id. at 362.} Thus, the goal is to provide a regional perspective to development and management of interstate resources in which all regional interests, including the federal government, are committed to the purposes of the compact. 

Fifth, compacts must display both political accountability and responsiveness.\footnote{240 Id. at 362.} Consideration must be given to weighted representation as opposed to traditional equality among states because each state has widely disparate interests due to its respective geography, population and share of the resources.\footnote{241 Consider Michigan’s position. Virtually surrounded by water, the state holds a strategic position of potential control over Atlantic and interlake transportation to and from Lake Superior, Lake Michigan and Lake Huron. Tourism and recreation on the lakes are also major state industries. See M. RIDGEWAY, \textit{supra} note 38, at 142-43.} 

Sixth, an interstate compact must have the ability to attain regional “visibility” and to attract adequate executive leadership.\footnote{242 See J. Muys, \textit{supra} note 109, at 367.} Traditionally, interstate compacts have suffered from limited authority, inadequate financial support and failure to attain significant authority.\footnote{243 Id.} 

In the final analysis, the most significant impediment to an interstate compact are the sovereign and bureaucratic rivalries. If the Great Lakes states are to succeed in establishing a regional authority over the basin, it is essential that such concerns be put behind and the focus concentrated on political and economic concerns. As one U.S. senator aptly stated: “The simple truth is that...we are far from one world politically. But by necessity, if not by choice, we are one world environmentally. States have sovereign rights—but so do people. We cannot rely on the political habits of the past to save our environment of the future.”\footnote{244 \textit{SATURDAY REVIEW}, Aug. 7, 1971, at 50 (statement of Senator Edmund Muskie).} 

\section*{V. Conclusion}

The historical interpretation of the U.S. constitutional framework has led to a centralization of powers within the federal government. The
recent trend toward decentralization is an attempt to narrow the gap between decision-makers and constituents and to assure that the burden of governmental regulation is borne by those who are willing to pay and accept the consequences. The trend, however, cannot be regarded as a sweep of autonomous authority from federal to state government. Nothing in the Constitution or its history supports such a proposition. Government exists not for its own sake, but for the individuals it serves. It is primarily the trust placed in the federal government that individual autonomy will not be shackled by local constraints.

Both the market and non-market values at stake in the natural resource area present particular concerns that resist broad legal propositions that these resources belong either to the nation or to the states. It is encouraging to note the U.S. Supreme Court's retreat from deciding interstate resource disputes on its traditionally rigid posture of maintaining open markets. Natural resources are often the only means for economically depressed states to attract industry and revenue. This is true whether it is for conservation or exploitation.

The Great Lakes Basin is perhaps the most poignant example of the struggle between regional and national interests concerning natural resources. While the region presently lacks an institution with broad representation and authority, the impending threats of a water resource crisis will require a viable solution. This solution must be based on cooperative efforts, not on declarations of federal preemption or state or provincial autonomy. Without doubt, the federal governments have ample authority to authorize regional transfers of water, and perhaps it is only a matter of time before the benefits of these proposals outweigh their costs. From the states and provinces' point of view, however, exercising supreme power in favor of one region to the detriment of another is as arbitrary as emphasizing economic benefits and de-emphasizing non-market benefits simply because it is in the national interest. Equally compelling is the concern that regional authority over interstate resources will create regional monopolies. Furthermore, there is no precedent for regional authorities to share equal footing with the federal government.

Accordingly, there is need for a novel approach to these problems. An interstate compact consisting of regional and national representation appears to be the most attractive institutional framework for the Great Lakes Basin. The interstate compact can be structured to deal with changing conditions and to fulfill the purposes for which the compact was created. Whatever the outcome, it will likely have far-reaching implications on the future of national resource allocation and the bounds of permissible state and provincial authority in both the U.S. and Canadian federalist systems.