1990

State Control of Great Lakes Water Diversion

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STATE CONTROL OF GREAT LAKES WATER DIVERSION

J. DAVID PRINCE†

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Extensive research for this article was provided by Rebecca Oeltjenbruns and John Nichols. My colleague, Marcia Gelpe, provided many thoughtful comments on an earlier draft. I am grateful for their help and support on this project.

This article is the result of research sponsored by the Minnesota Sea Grant College Program, supported by the National Oceanographic and Atmospheric Administration Office of Sea Grant, Department of Commerce, under Grant No. NOAA-86AA-D-SG-112. The U.S. Government is authorized to reproduce and distribute reprints for government purposes, notwithstanding any copyright notation they may appear hereon.

Published by Mitchell Hamline Open Access, 1990
INTRODUCTION

The five Great Lakes, Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario, make up the world's largest freshwater reservoir system.1 The shorelines of these lakes are some 8,000 miles in length.2 A walk around these shorelines is a journey more than two times a walk across America.3

Together, the Great Lakes contain a volume of over 65 quadrillion (65 x 10^{15}) gallons of water.4 This represents ninety-five percent of the United States' supply of fresh surface water and twenty percent of the world's.5

Most Americans are accustomed to having endless quantities of water at their immediate disposal. Sufficient supplies of water are taken for granted for washing cars, watering lawns, and beautifying cities through free flowing fountains. Given the volume of water contained in the five Great Lakes, concern over the possible depletion of the plentiful water supply, either by diversion6 or consumptive use,7 may seem absurd.

But due to phenomenal population growth, industrial expansion, and depletion and contamination of groundwater in the western states,8 the people of the Great Lakes region have

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1. "[The] system spans over 2,400 miles (3,840 kilometers) and covers an area of 95,000 square miles (246,050 square kilometers)." Bixby, The Law and the Lakes, 1986 THE CENTER FOR THE GREAT LAKES 13.
3. 20 THE WORLD BOOK ENCYCLOPEDIA United States 91 (1988). The greatest distances across the continental United States, from east to west, is 2,807 miles (4,517 km.). Note that Alaska and Hawaii are excluded from this figure. Id.
4. STATE OF ILLINOIS DEP'T OF TRANSP., GREAT LAKES WATER DIVERSIONS AND CONSUMPTIVE USES: CHARTING A COURSE FOR FUTURE PROTECTION 1 (Nov. 17, 1983) [hereinafter DIVERSIONS AND CONSUMPTIVE USES]. But see Bixby, supra note 1, at 13 (storage capacity figured at 65 trillion gallons).
5. DIVERSIONS AND CONSUMPTIVE USES, supra note 4, at 1.
6. Diversions are alterations or detours of water from the source to areas in need of water.
7. Consumptive use is that portion of water that is used and not returned to the source. It has the same effect as diversions.
8. See Great Lakes Water Diversion: Federal Authority Over Great Lakes Water, 1983 DET. C.L. REV. 919 (discussion of the water shortage problem, the federal government's power to control the navigable waters, and the possible ramifications of federal inaction) [hereinafter Federal Authority]. See also Water Diversion and Great Lakes
reason to be concerned.\textsuperscript{9} The residents of the eight Great Lakes states\textsuperscript{10} and the two Canadian provinces\textsuperscript{11} that border the Lakes need to be aware of the interest in the Lakes as a potential water supply for other regions of the country.\textsuperscript{12}

Commercial navigation,\textsuperscript{13} power generation, agriculture, recreation, coastal interests and the overall environment of these states and provinces all depend upon the level of water in the Great Lakes.\textsuperscript{14} For example, the several major hydroelectric power plants located in the connecting channels of the Great Lakes are directly affected by the management of Great Lakes water.\textsuperscript{15} The capacity for electric power production at these plants is directly proportional to the volume of water available.\textsuperscript{16} If the flow of water were to be decreased, significant losses in production capacity would occur.\textsuperscript{17}

\begin{flushright}
\textit{Institutions}, 8 Hamline J. Pub. L. & Pol'y 301 (1987) (discussion of need for united regional policy position on Great Lakes water diversion to protect the lakes in the event of a major diversion; proposing several recommendations to protect the lakes; suggesting that the International Joint Commission is the agency best suited to address water diversion issues).
\end{flushright}


\textsuperscript{10} The eight Great Lakes states are Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin.

\textsuperscript{11} Ontario and Quebec are the two Canadian provinces.

\textsuperscript{12} Liquid Gold, supra note 9, at 922-26.

\textsuperscript{13} Commercial navigation would experience large economic losses from a very small drop in lake levels caused by a diversion. The water depth in navigational channels dictates the amount of cargo a deep-draft vessel can carry. A change in lake levels due to a diversion can change the loading capacity of ships, which leads to a change in the total cost of transporting goods. Bixby, supra note 1, at 16. “In 1984, 82.4 million tons of commercial cargo were shipped through the Sault Ste. Marie locks; and 47.5 million tons passed through the St. Lawrence Seaway, generating $3 billion (U.S. $) for the regions economy.” Id. at 13 (citing St. Lawrence Seaway Development Corp., Internal Corporate Communication (July 1984)).

[This] $3 billion figure was based on a multiplier developed from material available from the ports of Duluth, MN; Burns Harbor, IN; Chicago, IL; and Detroit, MI. It is based on the determination that each metric ton of cargo that passes through the Seaway generates $54 (U.S.$). The value of the cargo was not included in the impacts, but rather [represents] wages, goods and services provided.

\textsuperscript{14} House Marine Affairs and Port Dev. Comm., Potential Impacts of Great Lakes Diversions 3-4 (Nov. 1984) [hereinafter Potential Impacts].

\textsuperscript{15} Id. at 3.

\textsuperscript{16} Id.

\textsuperscript{17} Id.
As the Final Report of the House Marine Affairs and Port Development Committee explained:

The environmental impacts of a diversion are very difficult to determine and are mostly qualitative at present. An out-of-basin diversion would not significantly affect overall water quality in the Great Lakes, but could increase pollutant concentrations and stagnation in bays with restricted openings to the lakes. Water quality could be affected by a diversion into the system, depending on the quality and quantity of the influent. Altering flows in an existing diversion can affect water quality in the diversion route by changing erosion rates and dilution of pollutants. A decrease in mean levels would change total wetland area and its vegetative composition, but reduce fish productivity and wildlife species diversity. . . . Beach use would be altered due to a diversion, as the associated lake level changes would affect beach area. Boating would suffer if levels were lowered, as safe access or passage may no longer be available into certain berths or shallow areas. The impacts of diversion on sport fishing and hunting are expected to correspond to the impacts on fish and wildlife resources.

Diversion of Great Lakes water could also affect many coastal interests. Shoreline flooding and erosion could be somewhat alleviated by any diversion induced drop in lake levels. However, industries and municipalities with water intakes along the shoreline might experience losses due to increased pumping costs. . . .

Agriculture could also be affected by water diversions in the Great Lakes. Low lying farmland along a diversion route could suffer extensive crop losses due to inundation if levels increase.18

There are three main causes for the changing water levels in the Great Lakes: pollution,19 consumption,20 and diversion.21 The first of these, pollution, is a significant area of concern, but is not within the scope of this article.

Although water consumption is not as controversial a topic as water diversion, it has the same effect. Water that is consumed is water removed and not returned: water that is di-

18. Id. at 3–4.
19. See Liquid Gold, supra note 9, at 908 (discussing pollution of groundwater).
20. Diversion and Consumptive Uses, supra note 4, at 42 (reviewing consumptive uses within the Great Lakes basin).
21. See generally Diversion and Consumptive Uses, supra note 4.
verted is water also not returned. Of the 75,600 cubic feet per second (cfs) or 48.9 billion gallons of water per day (gpd) that is removed from the lakes, most is eventually returned. That which is not returned is called consumptive use.

Unlike diversions, where measuring the flow of water at identifiable points is relatively straightforward, consumptive uses are difficult to quantify. There are various consumptive uses throughout the Great Lakes basin. Water is drawn for manufacturing, power generation, irrigation, mining, and other rural and municipal uses.

As difficult as the existing consumptive uses are to measure and quantify, it is even more difficult to predict future consumptive uses. The International Joint Commission (IJC), established by the Boundary Waters Treaty of 1909, monitors these concerns. The IJC predicts that future consumptive uses will be much more significant than diversions in affecting the levels and outflows of the Great Lakes.

This article focuses on potential new diversions of Great Lakes water. This potential attracts far more attention in the Great Lakes region than do discussions about the effects of pollution or consumptive uses.

23. Bixby, supra note 1, at 15.
24. Diversions and Consumptive Uses, supra note 4, at 42.
25. Id. at 43. "To develop forecasts of future consumptive uses, it is necessary to make a number of assumptions regarding economic growth, population trends, changes in technology and lifestyle, and shifts in the political and environmental perception of the Great Lakes as an economic, social and environmental resource.” Id.

Under articles III and IV the International Joint Commission has a quasi-judicial role in that it may approve or disapprove of any use, obstruction or diversion of boundary waters or waters that flow from boundary waters or in waters at a lower level than the boundary in rivers that flow across the boundary, if such would have the effect of raising the water level on the other side of the boundary, unless agreed to by the states' parties. Williams, Public International Law and Water Quantity Management in a Common Drainage Basin: The Great Lakes, 18 CASE W. RES. 155, 179 (1986)(footnote omitted); see also Potential Impacts, supra note 14, at 6 (discussing transboundary water issues).

27. See Bixby, supra note 1, at 15 (“In 1985, the IJC predicted that consumptive use of lake water by the Great Lakes States and Canadian provinces may grow to a number as much as 8,400 cfs by the year 2000.”); see also Potential Impacts, supra note 14, at 2 (“[The International Great Lakes Diversion and Consumptive Uses Study Board] projected consumptive uses in the Great Lakes basin, which totaled 4,900 cfs in 1975, could increase approximately 300 to 700 percent by the year 2035.”)
Presently, there are five significant diversions of water into, out of, or within the Great Lakes system. Four of these diversion projects—the Long Lac and Ogoki diversion, the Lake Michigan diversion at Chicago, and the Welland Canal (see map)—affect lake levels. The fifth diversion, the New York State Barge Canal, is quite small and does not have a direct impact on lake levels.\textsuperscript{28}

The Long Lac and Ogoki diversions (see map) are entirely separate diversions, but are usually considered together, since they are both used to transfer water from the James Bay watershed of Ontario into Lake Superior.\textsuperscript{29} These diversions were constructed during the 1940’s for the generation of hydroelectric power.\textsuperscript{30} The Long Lac diversion was developed as a means of transporting pulpwood logs.\textsuperscript{31} Both diversions combine to divert an average of 5,600 cfs of water into the basin.\textsuperscript{32} The effect of the two diversions has been to increase the mean level of the five Great Lakes.\textsuperscript{33}

The Lake Michigan diversion at Chicago was completed in 1900\textsuperscript{34} and is the oldest and largest out-of-basin diversion in the Great Lakes basin.\textsuperscript{35} The diversion transfers basin water for sanitary and navigation purposes through the Illinois and Michigan Canal to the Mississippi River.\textsuperscript{36} It has been the subject of much litigation before the United States Supreme Court,\textsuperscript{37} and as a result, the diversion is now limited to 3,200

\begin{footnotesize}
\begin{tabular}{ll}
28. & Bixby, supra note 1, at 14. \\
29. & Id. \\
30. & Id. \\
31. & \textit{Diversions and Consumptive Uses}, supra note 4, at 33. \\
32. & Bixby, supra note 1, at 14. \\
33. & Lake Superior has increased by 0.21 feet, Lakes Michigan and Huron by 0.37 feet; Lake Erie by 0.25 feet, and Lake Ontario by 0.22 feet. \textit{Diversions and Consumptive Uses}, supra note 4, at 35. \\
34. & Id. at 35; see also Bixby, supra note 1, at 14. \\
35. & Bixby, supra note 1, at 14. \\
36. & Id. \\
37. & The Supreme Court has jurisdiction over enforcing the maintenance of proper water levels in Lake Michigan. See Wisconsin v. Illinois, 388 U.S. 426, 427 (1967) (enjoining the state of Illinois and all other state entities from diverting more than the legally defined amount of water from Lake Michigan), modified, 449 U.S. 48, 51–53 (1980) (modified only as to the formula for determining the allowable quantity to be diverted); Wisconsin v. Illinois, 281 U.S. 179, 201 (1930) (enjoining the defendants, the state of Illinois, and the Sanitary District of Chicago from unlawfully diverting water from Lake Michigan); Wisconsin v. Illinois, 278 U.S. 367, 420 (1929) (declaring jurisdiction to compel the reduction of the diversion to restore the navigable capacity of Lake Michigan to its proper level). Lake Michigan is not a boundary
\end{tabular}
\end{footnotesize}
GREAT LAKES

cfs (2.1 billion gpd). This diversion decreases the mean level of each of the Great Lakes.

The Welland Canal (see map) diverts water from Lake Erie to Lake Ontario for the operation of a deep draft navigation canal and the generation of power at the hydropower facility at DeCew Falls. The diversion across the Niagara peninsula supplies water to a number of communities for industrial and municipal use. The Welland River also receives water from the canal to maintain its water quality. Although the Welland Canal has opened up the Great Lakes to international shipping, it has, in the process, lowered the level of Lake Erie by about 5.25 inches.

The smallest diversion, the New York State Barge Canal system, connects the Hudson River to Lake Ontario. It has three additional canals which connect the Erie Canal to various parts of Lake Ontario. Water is also diverted from the Niagara River; but such withdrawal has no effect on Lake Erie or the lakes upstream because it is withdrawn past the natural hydrologic control section.

The five diversions, although monitored by either the IJC, the Supreme Court or the International Niagara Committee, are not the main focus of regional concern. The prospect of new diversions presents far greater concern for the

water under the Boundary Waters Treaty of 1909, because it is not along the international boundary between Canada and the United States. It is therefore not subject to international control by the International Joint Commission under the Boundary Waters Treaty discussed supra note 26.


39. Lake Superior has decreased by 0.07 feet, Lake Michigan and Lake Huron by 0.21 feet, Lake Erie by 0.14 feet, and Lake Ontario by 0.10 feet. DIVERSIONS AND CONSUMPTIVE USES, supra note 4, at 36.

40. Id.

41. Id.

42. Bixby, supra note 1, at 15. This diversion has “provided an entry way for new species of aquatic life. Among these was the parasitic lamprey eel which seriously threatened the native populations of lake trout and other valued sport and commercial species.” Id.

43. DIVERSIONS AND CONSUMPTIVE USES, supra note 4, at 37.

44. Id.

45. Id.

46. See Boundary Waters Treaty, supra note 26.

47. See cases cited supra note 37.

48. The International Niagara Committee reports the amounts of water diverted through the Welland Canal to both the United States and Canada. DIVERSIONS AND CONSUMPTIVE USES, supra note 4, at 37.
region.\textsuperscript{49} Over the years, a number of Great Lakes water diversion schemes have been proposed.\textsuperscript{50} The most ambitious of these is the Great Recycling and Northern Development (GRAND) Canal project.\textsuperscript{51}

The GRAND Canal project proposes to stabilize the level of the Great Lakes. It would make 11 trillion gallons of water available for western states, Canadian provinces and Northern Mexico.\textsuperscript{52} The GRAND scheme (see map) would dam the mouth of James Bay, trapping the run-off from rivers that flow into the Bay, eventually creating a freshwater lake.\textsuperscript{53} The water would then be pumped by way of the Ontario and Quebec river systems into the Great Lakes where the surplus could be piped to western states.\textsuperscript{54} This project would take ten years to build at an estimated cost of $100 billion!\textsuperscript{55}

This grandiose scheme would require international cooperation in managing the water flow into and out of the Lakes. Even if the net in and out flow was zero, the localized effects of such massive diversions could be severe. The potential for ecological and economic havoc is obvious. It is not surprising, therefore, that the Great Lakes states view the prospect of proposals like the GRAND project, or other substantial diversions of water into and out of the Great Lakes, with alarm. While the Great Lakes states have traditionally expressed dismay over water diversion plans, the most notable expression of regional concern is now found in the Great Lakes Charter.\textsuperscript{56}

The Charter was signed on February 11, 1985 by the gover-

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\item[49.] "The Great Lakes regions' leaders came to fully recognize the inadequacy of [the current water] management system during the early 1980s when events directly and indirectly related to the region drew attention to the value of fresh water." Bixby, \textit{supra} note 1, at 21.
\item[50.] Two major diversion proposals surfaced in 1981. Both were based on diverting water for coal slurry pipeline companies. Fortunately, neither of the proposals were completed. For further details on the two coal slurry pipeline diversion proposals, see Bixby, \textit{supra} note 1, at 21, and \textit{Diversions and Consumptive Uses}, \textit{supra} note 4, at 39.
\item[51.] Minneapolis Star and Tribune, May 17, 1987, at 17a, col. 1.
\item[52.] \textit{Id.}
\item[53.] \textit{Id.}
\item[54.] \textit{Id.}
\item[55.] \textit{Id.}
\end{enumerate}
\end{footnotesize}
nors of the eight Great Lakes states and the premiers of the two Canadian provinces.\textsuperscript{57} It states five principles and sets forth measures for the Charter’s implementation.\textsuperscript{58} These principles commit the governors and premiers to manage the Great Lakes Basin water cooperatively, and to respect the hydrologic unity of the Great Lakes system.\textsuperscript{59} Further, the signatories pledged to work towards obtaining legislation in each of their respective jurisdictions to implement the Charter and ensure appropriate use of the Basin’s water resources.\textsuperscript{60}

In addition, the governors and premiers agreed to refrain from approving any major new or increased diversions or consumptive uses of Great Lakes water without notifying and seeking the consent and concurrence of all affected Great Lakes states and provinces.\textsuperscript{61} Lastly, the Charter established a Water Resources Management Committee to oversee the development of a common base of data on Great Lakes water use and availability, which spells out a program of action to encourage and support ongoing maintenance of this data base.\textsuperscript{62}

Thus, the Charter, a joint effort by the eight states and two provinces, represents regional unity.\textsuperscript{63} It is a historic, good faith agreement.\textsuperscript{64} Since it has no legal binding effect, the Charter’s impact depends entirely on the region’s commitment towards developing the basin wide water resources management strategy outlined in the Charter. The Charter’s comprehensive plan for the establishment of a regional data base, and regulation of major diversions and major consumptive uses, does not eliminate the threat of large scale diversions to areas outside of the Great Lakes Basin.\textsuperscript{65} Thus, the Charter’s importance does not lie in its policy statements, but rather in its integrated management strategies.\textsuperscript{66}

\textsuperscript{57} Bixby, \textit{supra} note 1, at 23.
\textsuperscript{58} The Great Lakes Charter, \textit{supra} note 56. The five principles are: (1) integrity of the Great Lakes basin; (2) cooperation among jurisdictions; (3) protection of the water resources of the Great Lakes; (4) prior notice and consultation; and (5) cooperative programs and practices. \textit{Id.}
\textsuperscript{60} \textit{Id.}
\textsuperscript{61} \textit{Id.}
\textsuperscript{62} \textit{Id.}
\textsuperscript{63} See \textit{id.} at 57.
\textsuperscript{64} MacAvoy, \textit{supra} note 59, at 49.
\textsuperscript{65} \textit{Id.} at 57–58.
\textsuperscript{66} \textit{Id.} at 65.
Although the Great Lakes Charter is not law, i.e. has no binding legal effect, the many issues presented by the task of managing Great Lakes waters are resolved in part by law. In general, a large body of law is relevant to Great Lakes management issues including the issue of out-of-basin diversions of Great Lakes waters. In the United States, the laws of the eight states bordering the Great Lakes and federal law are relevant to the problem. In Canada, both federal and provincial law may affect diversion issues, and there is a significant body of international law that may also apply.

Within the constraints of the law, a range of choices for managing the Lakes remain. But these choices are further constrained by politics and economics, especially where large-scale, long-range diversion of water is at issue. This article focuses on the law relevant to the issue of interbasin diversion of Great Lakes water, the policies reflected in that law, and the limitations of the law on such diversions and on the ability of the Great Lakes states to control proposed diversions. It concludes with an argument for regional as opposed to national or state-by-state decisionmaking on the issue of diversions and a suggested mechanism for facilitating such regional decision making.

I. STATE LAW

Each of the Great Lakes states has a body of law that partly defines that state’s ability to control diversions of Great Lakes

67. Bixby, supra note 1, at 17. Bixby notes that water resource use in the United States, generally falls under the jurisdiction of the individual states, except where it is an interstate or international resource.

68. In Canada, provincial and federal responsibility for resource management is divided. The provinces own the water resources within their boundaries and therefore have authority to legislate in areas of domestic, municipal, and industrial water supply. The federal Parliament, however, shares jurisdiction with the provinces in agriculture and health and has exclusive jurisdiction over navigation, as well as the residual power to legislate for the peace, order, and good government of the country. MacAvoy, supra note 59, at 62.

On April 26, 1988, Iain Angus (Member of Parliament, Canada) announced that his Private Members Motion to ban large-scale exports of water from Canada had been selected for debate in the House of Commons. The purpose of Angus’ motion was to force the government to bring in legislation banning large-scale water exports. Angus Moves to Ban Water Exports, Communiqué from Iain Angus, MP, House of Commons, Canada, April 26, 1988. For more information on Canada’s water policy, see Environment Canada, Federal Water Policy (1987).

69. See generally Williams, supra note 26.
water from the portion of the Lakes within their boundaries.\textsuperscript{70} There is a variety of state law, with no two states having exactly the same law relevant to this issue.

The discussion of state law will focus on Minnesota law as an example. The laws and regulations for the management of water within Minnesota’s jurisdiction are generally more comprehensive than those found in the other Great Lakes states. Minnesota lies at the western end of the Great Lakes, adjacent to Lake Superior, the most likely place from which to divert Great Lakes water to the more arid American High Plains and Southwest. Therefore, Minnesota law is the most likely state law to be relevant to any such diversion proposals. Nevertheless, the law of each of the Great Lakes states is relevant to the overall issue of Great Lakes water diversions.

In Minnesota, the primary manager of water resources is the state’s commissioner of natural resources.\textsuperscript{71} The commissioner is charged with developing a water resources conservation program that contemplates the conservation, allocation and development of both surface and underground waters.\textsuperscript{72} The commissioner’s regulatory jurisdiction extends to “waters of the state” which are defined to mean both surface and underground water including boundary waters.\textsuperscript{73} A permit from the commissioner is required before any waters of the state can be appropriated or used.\textsuperscript{74}

Similarly, a permit is required to “change or diminish the course, current or cross section of any public waters . . . .”\textsuperscript{75} Although public waters are defined more narrowly than waters of the state,\textsuperscript{76} Lake Superior clearly falls within either defini-

\textsuperscript{71} Minn. Stat. § 105.39, subd. 1 (1988).
\textsuperscript{72} Id.
\textsuperscript{73} Minn. Stat. § 105.37, subd. 7 (1988).
\textsuperscript{75} Minn. Stat. § 105.42, subd. 1 (1988).
\textsuperscript{76} Minn. Stat. § 105.37, subd. 14 (1988). Public waters are defined to include, and be limited to:
Diversion of Lake Superior water from any point in Minnesota is subject to the commissioner's regulatory authority and requires one or more permits.

In addition, other agencies in Minnesota promulgate rules which influence the management of water in the state. For example, the Pollution Control Agency and the Department of Health have regulatory responsibilities regarding water. Local governments including counties, cities and watershed districts also play a role in regulation. Each of these water management entities forms a complex and sometimes confusing network of regulatory control with a history of conflicting goals and disputes over jurisdiction.

The appropriation of waters in Minnesota is governed by Minnesota Statutes Chapter 105. Chapter 105 is comprehensive in its requirements. A valid written permit must be issued from the commissioner before waters may be used or appropriated by any person, corporate entity, or political organiza-

(a) All water basins assigned a shoreland management classification by the commissioner pursuant to section 105.485, except wetlands less than 80 acres in size which are classified as natural environment lakes;

(b) All waters of the state which have been finally determined to be public waters or navigable waters by a court of competent jurisdiction;

(c) All meandered lakes, except for those which have been legally drained;

(d) All water basins previously designated by the commissioner for management for a specific purpose such as trout lakes and game lakes pursuant to applicable laws;

(e) All water basins designated as scientific and natural areas pursuant to section 84.033;

(f) All water basins located within and totally surrounded by publicly owned lands;

(g) All water basins where the state of Minnesota or the federal government holds title to any of the beds or shores, unless the owner declares that the water is not necessary for the purposes of the public ownership;

(h) All water basins where there is a publicly owned and controlled access which is intended to provide for public access to the water basin; and

(i) All natural and altered natural watercourses with a total drainage area greater than two square miles, except that trout streams officially designated by the commissioner shall be public waters regardless of the size of their drainage area.

Id.

77. Lake Superior constitutes "waters of the state" because it is a surface water located on Minnesota's boundary. See Minn. Stat. § 105.37, subd. 7 (1988).

78. See Minn. Stat. § 105.39, subd. 3(2) (1988).

79. See Minn. Stat. § 105.42, subd. 1, 1a (1988).


81. Id.

82. Id.

tion.\textsuperscript{84} Pursuant to statutory authority, the commissioner has adopted rules, based on a statutory priority list, for the allocations of waters.\textsuperscript{85} In addition, a supplemental permit is required to increase the use of water or holding capacity substantially beyond the terms of the permit.\textsuperscript{86} The commissioner has authority to inspect any installations, and the permit holder is required to provide information on the installation.\textsuperscript{87} The permit holder must maintain records of the quantity of water used or appropriated, and the commissioner has authority to select the method of measurement.\textsuperscript{88} All records of the amount of water appropriated or used must be submitted annually to the commissioner.\textsuperscript{89} Finally, appropriation and use permits may be transferred if the permit holder also conveys the real property where the water source is located.\textsuperscript{90}

Certain uses of Minnesota water are discouraged, including out-of-state diversions.\textsuperscript{91} Following this statutory directive, the commissioner has adopted rules for appropriation and use of Minnesota waters. “ Appropriation” under the rule is defined as any taking of water regardless of use.\textsuperscript{92} “Waters of the state” are defined, as in the statute, to include surface and underground waters.\textsuperscript{93}

Under the rules, a water use permit is required for all appropriations except in cases of general residential and domestic use.\textsuperscript{94} The exception also applies to testing of groundwater, to

\textsuperscript{84} MINN. STAT. § 105.41, subd. 1 (1988 & Supp. 1989). A permit is not required, however, for appropriation and use of waters of less than a minimum amount as determined by the commissioner. MINN. STAT. § 105.41, subd. 1b (1988 & Supp. 1989). A permit may not be issued from a groundwater source for a once-through cooling system that uses more than five million gallons annually. MINN. STAT. § 105.41, subd. 1c (1988 & Supp. 1989).

\textsuperscript{85} MINN. STAT. § 105.41, subd. 1a (1988 & Supp. 1989).

\textsuperscript{86} MINN. STAT. § 105.41, subd. 2 (1988).

\textsuperscript{87} MINN. STAT. § 105.41, subd. 3 (1988).

\textsuperscript{88} MINN. STAT. § 105.41, subd. 4 (1988).

\textsuperscript{89} MINN. STAT. § 105.41, subd. 5 (1988 & Supp. 1989). When submitting annual records to the commissioner, the permit holder must enclose the corresponding processing fee as determined by § 105.41, subd. 5a.

\textsuperscript{90} MINN. STAT. § 105.41, subd. 6 (1988). The new permit holder must notify the commissioner immediately after the permit is transferred.

\textsuperscript{91} MINN. STAT. § 105.41, subd. 1a(f) (1988 & Supp. 1989). Additionally, appropriation and use of waters from lakes of less than 500 acres in surface area are discouraged. MINN. STAT. § 105.41, subd. 1a(d) (1988 & Supp. 1989).

\textsuperscript{92} MINN. R. 6115.0630, subp. 3 (1989).

\textsuperscript{93} MINN. R. 6115.0630, subp. 18 (1989).

\textsuperscript{94} MINN. R. 6115.0620 A (1989).
appropriations which do not exceed certain gallon limits, removal of water from cropland and reuse of appropriated waters.\textsuperscript{95}

Anyone seeking to appropriate water must complete an application form.\textsuperscript{96} The applicant must provide evidence of either ownership, control or license to use the land overlying the groundwater or abutting the surface water.\textsuperscript{97} The applicant must also provide aerial photographs, maps, sketches, or other information showing the location of the property, the outline of the property involved, the location of the proposed appropriation and the kind of water source involved.\textsuperscript{98} Governmental units affected by the proposal must be given copies of the application.\textsuperscript{99} The applicant must show that signed statements have been given to the affected governmental units.\textsuperscript{100} Also required is information on hydrology and hydraulics, proposed pumping rates, amounts of water involved, techniques of appropriation and any alternatives considered.\textsuperscript{101}

Additional information is required in the application for use of surface water. This includes data on contingency plans in the event of a water shortage, any alternative plans considered, and, in the case of smaller sources of surface water, demonstration that the riparian owners affected approve or disapprove of the plan.\textsuperscript{102}

The commissioner must consider certain factors in granting or denying water appropriation permits, such as, the location and the impact the water use proposal would have on the area; hydrology, hydraulics and anticipated environmental effects; and the effects of the proposal on public health, safety and welfare.\textsuperscript{103} In addition, the commissioner must take into account

\begin{itemize}
  \item \textsuperscript{95} \textit{Minn. R. 6115.0620 B, C, and D} (1989).
  \item \textsuperscript{96} \textit{Minn. R. 6115.0660}, subp. 1 (1989).
  \item \textsuperscript{97} \textit{Minn. R. 6115.0660}, subp. 2 (1989).
  \item \textsuperscript{98} \textit{Minn. R. 6115.0660}, subp. 3C (1989).
  \item \textsuperscript{99} \textit{Minn. R. 6115.0660}, subp. 3D (1989). Those to be notified include the mayor of the city, the secretary of the board of supervisors of the soil and water conservation district or the secretary of the board of managers of the watershed district, if the proposed project falls within a city or affects a watershed or conservation district or city. \textit{Id.}
  \item \textsuperscript{100} \textit{Id.}
  \item \textsuperscript{101} \textit{Minn. R. 6115.0660}, subp. 3E (1989).
  \item \textsuperscript{102} \textit{Minn. R. 6115.0660}, subp. 3G (1989).
  \item \textsuperscript{103} \textit{Minn. R. 6115.0670}, subp. 2A. Other factors include the quantity, quality and timing of any waters returned after use and the impact on the receiving waters.
\end{itemize}
state, federal, and local laws, rules and water management plans.\textsuperscript{104} The commissioner may waive any of the conditions to the permit granted.\textsuperscript{105}

Out-of-state diversions are covered in special provisions of the statutes and rules. The law provides that:

No permit . . . nor any plan that requires a permit or the commissioner's approval, involving a diversion of any waters of the state, surface or underground, of more than 2,000,000 gallons per day average in any 30-day period, to a place outside of this state or from the basin of origin within this state shall be granted or approved until after (1) the commissioner has determined that the water remaining in the basin of origin will be adequate to meet the basin's water resources needs during the specified life of the diversion project; and (2) approval by the legislature.\textsuperscript{106}

This language replaces an earlier provision that precluded the commissioner from approving "a diversion of any waters of the state . . . to a place outside of this state . . . until . . . approval by the legislature."\textsuperscript{107} The language was changed in 1987, apparently out of concern that the earlier provision might discriminate against out-of-state diversions so as to violate the commerce clause.\textsuperscript{108}

A special provision was added in 1987 to Minnesota Statute Section 105.405, subdivision 4(a) to cover proposed diversions or any other consumptive use of water from the Great Lakes. No proposed diversion for more than five million gallons per day average in a thirty-day period may be approved until after:

(1) the commissioner has notified and solicited comments on the proposed diversion or consumptive use from the offices of the governors of the Great Lakes states and premiers of the Great Lakes provinces, the appropriate water management agencies of the Great Lakes states and provinces, and the international joint commission;

(2) the commissioner has considered the comments and concerns of the offices, agencies, and commission to which notice was given under clause (1); and

\begin{itemize}
  \item involved; efficiency of use; adequacy of state water resources; and economic benefits of the proposed appropriation. \textit{Id.}
  \item MINN. R. 6115.0670, subp. 2A (4) (1989).
  \item MINN. R. 6115.0670, subp. 4 (1989).
  \item MINN. STAT. § 105.405, subd. 2 (1988) (emphasis added).
  \item MINN. STAT. § 105.405, subd. 2 (1988).
  \item See infra notes 133–136 and accompanying text.
\end{itemize}
(3) approval by the legislature.\footnote{109}

This same section goes on to provide that:

If an objection is made to the proposed diversion or consumptive use by an office, agency, or commission to which notice was given under paragraph (a), clause (1), the commissioner will convene a meeting with the affected office, agency or commission to investigate and consider the issues involved, and to seek a mutually agreeable solution to be recommended to the commissioner. In making a final decision on the approval of a permit or plan subject to review under this subdivision, the commissioner shall consider the record of the meeting and the recommendation. The commissioner shall send notification of the final decision to each office, agency, or commission to which notice was given under paragraph (a), clause (1).\footnote{110}

These provisions of Minnesota law pursue the state's undertaking in the Great Lakes Charter to consult with and consider comment from the other Great Lakes states as to any such diversion proposal.\footnote{111}

In addition, the Minnesota Department of Natural Resources rules also contain some special provisions dealing with proposed diversions. The commissioner must consider "the adequacy of state water resources availability when diversions of any waters of the state to any place outside of the state are proposed."\footnote{112} No permit can be issued if "the remaining waters in the state will not be adequate to meet the state water resources needs during the specified life of the diversion."\footnote{113} The commissioner's discretion regarding proposed diversions is also limited.\footnote{114} Again, no permit can be issued if there is an unresolved conflict between competing users, or if the appropriation is not consistent with state water management plans, or if the appropriation is not reasonable and does not protect public safety and welfare.\footnote{115}

Permit approvals of surface water appropriations are still limited to the priority directive of Minnesota Statute Section

\footnote{109} \textit{Minn. Stat.} § 105.405, subd. 4(a) (1988).
\footnote{110} \textit{Minn. Stat.} § 105.405, subd. 4(b) (1988).
\footnote{111} The Great Lakes Charter \textit{supra} note 56, Principle IV (Prior Notice and Consultation).
\footnote{112} \textit{Minn. R.} 6115.0670, subp. 2A (9) (1989).
\footnote{113} \textit{Minn. R.} 6115.0670, subp. 3A (1) (1989).
\footnote{114} \textit{Id.}
\footnote{115} \textit{Minn. R.} 6115.0670, subp. 3, 4, and 5 (1989).
105.41, subdivision 1a, and such permits may, at any time, be modified to meet the priority requirements.\textsuperscript{116} Under the priority list out-of-state diversions are discouraged.\textsuperscript{117} Under the rule, the commissioner is allowed to establish a protection level for surface waters, below which water cannot be appropriated.\textsuperscript{118} In addition, extra requirements for ground water permits are imposed.\textsuperscript{119} There is no provision for out-of-state diversions for ground water.

There is also a rule for conflicts in water use.\textsuperscript{120} Such conflicts are defined as the competing demands among existing and proposed users that exceed the reasonably available waters.\textsuperscript{121} Permit holders do not have an established right.\textsuperscript{122} Thus, the commissioner can alter existing permits to resolve use conflicts.\textsuperscript{123} If the conflict is not resolved by alteration of the existing permit, the commissioner must use the priority list, and resolve the conflict within each priority class.\textsuperscript{124}

Thus, Minnesota has considerable authority to regulate or prohibit diversion of water from the Great Lakes. However, this state authority is subject to some important limitations. The most significant limitation is that posed by the commerce clause, Article I, section 8, clause 3 of the United States Constitution.

\section*{II. The Commerce Clause}

Any measures taken by the eight Great Lakes states to protect their water resources are limited by the Supreme Court’s view that water is an article of commerce and therefore subject to the commerce clause.\textsuperscript{125}

The commerce clause provides a limiting test for state regulation of water. This section discusses the history of the

\begin{itemize}
\item \textsuperscript{116} \textit{Minn. R.} 6115.0670, subp. 3B (1) (1989).
\item \textsuperscript{117} \textit{Minn. Stat.} § 105.41, subd. 1a (1988 & Supp. 1989).
\item \textsuperscript{118} \textit{Minn. R.} 6115.0670, subp. 3B(4) (1989).
\item \textsuperscript{119} \textit{Minn. R.} 6115.0670, subp. 3C (1989).
\item \textsuperscript{120} \textit{Minn. R.} 6115.0740 (1989).
\item \textsuperscript{121} \textit{Minn. R.} 6115.0740, subp. 1 (1989).
\item \textsuperscript{122} \textit{Minn. R.} 6115.0740, subp. 2A (1989).
\item \textsuperscript{123} \textit{Minn. R.} 6115.0740, subp. 2C (1989).
\item \textsuperscript{124} \textit{Minn. R.} 6115.0740, subp. 2D (1989).
\item \textsuperscript{125} Sporhase v. Nebraska \textit{ex rel.} Douglas, 458 U.S. 941 (1982). In Sporhase, the Court reversed a decision of the Nebraska Supreme Court and held that ground water is an article of commerce and therefore subject to Congressional regulation. Moreover, Congress has not granted the states permission to regulate ground water.
\end{itemize}
commerce clause, from the earliest to the most recent natural resources cases. The section concludes with suggested measures available to the Great Lakes states to regulate water appropriations and evaluates these measures in light of commerce clause law.

A. Commerce Clause Analysis

The power to regulate commerce among two or more states in the United States is specifically granted to Congress by the Constitution.\(^{126}\) Where Congress has chosen to regulate an area of commerce, all state regulations that are contrary to Congress' regulation must fall before the supremacy clause.\(^{127}\) In areas where Congress has not regulated, the states may enact commerce regulations; the extent of such regulation is not defined by the Constitution.\(^{128}\) Limits do exist, however, and are addressed by the courts in terms of the "dormant" commerce clause power.\(^{129}\) This "dormant" commerce clause power has been recognized by the Supreme Court to restrict state action even in situations where Congress has not acted affirmatively to regulate interstate commerce.\(^{130}\)

When analyzing interstate commerce problems, the Supreme Court has given effect to the Framers' purpose in establishing the commerce clause. This purpose is to create a healthy environment for the development of a common market among the states and to eliminate internal trade barriers.\(^{131}\) The Court is thus placed in the role of arbitrator when a state regulation is challenged on the basis of a commerce clause violation in an area of commerce in which Congress has not acted.\(^{132}\)

A state regulation may be challenged when it impedes the operation of the common market among the states.\(^{133}\) States are prevented from enacting protectionist measures or policies

126. U.S. Const. art. I, § 8, cl. 3. Congress is granted the power "[t]o regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes. . . ."
128. Id.
129. Id.
131. See J. NOWAK, supra note 127, § 8.5.
132. Id.
133. Id.
of hoarding natural resources. They may not pass laws that discriminate against interstate commerce in favor of local economic interests.134 "Economic protectionism" legislation is almost unquestionably facially invalid.135 This concern prompted the Minnesota Legislature to amend the provision in Minnesota law that required legislative approval of any out-of-state diversion, but no legislative consideration of any in-state diversions.136

In addition, states are not allowed to burden unreasonably the exportation of local products. This rule operates regardless of whether the purpose is reputation enhancement of the product, conservation of resources for in-state use, guarantee of local employment, or establishment of a particular market for local residents.137

The next section shows how the Court moved from upholding state regulation of natural resources, to striking down regulations that unreasonably burden outstate uses of water,138 now deemed an article of commerce.139

1. Early Commerce Clause Decisions

Initially, the Supreme Court interpreted the commerce clause as giving the federal government absolute power to regulate commerce. Gibbons v. Ogden,140 the first case to develop the contours of the clause, clearly indicated Chief Justice Marshall's federalist position.141 The case involved a monopoly granted by the New York Legislature for the operation of steamboats on New York waters. The monopoly was challenged by Gibbons, who held a transportation license granted by Congress. Gibbons was in the business of transporting people from New Jersey to New York. The Supreme Court examined whether the commerce clause prohibited the New York

135. J. NOWAK, supra note 127, § 8.8, at 275. Economic protectionism by definition is isolation of state producers from competitive interstate commerce commodities, and where the economic security of the local market is augmented.
137. J. NOWAK, supra note 127, § 8.9, at 282.
138. Id. at 282–83.
141. See generally F. FRANKFURTER, THE COMMERCE CLAUSE UNDER MARSHALL, TANEY AND WAITE, 14 (1937) (Marshall believed in "[t]he need of a strong central government, as the indispensable bulwark of the solid elements of the nation . . . ").
statute which conflicted with a federal statute enacted by Congress to regulate commerce. The Court held that it did, despite an absence of explicit language in the commerce clause against state regulation.\footnote{142} Marshall, through dictum,\footnote{143} defined Congress' power to regulate commerce in very broad terms: "[i]t is the power to regulate; that is, to prescribe the rule by which commerce is to be governed. This power, like all others vested in Congress, is complete in itself, may be exercised to its utmost extent, and acknowledges no limitations, other than are prescribed in the constitution."\footnote{144}

Before his death, Marshall wrote two more important opinions regarding the commerce clause. His \textit{Brown v. Maryland} opinion continued to promote the principle that Congress had virtually exclusive power to regulate commerce.\footnote{145} The opinion gave powerful practical application to the possibilities Marshall intimated in \textit{Gibbons}, by striking down a Maryland law that required a $50 license for people who imported goods in order to sell them in the state. Marshall held that the license was a tax on international imports which violated the constitutional prohibition against state duties on imports and exports.\footnote{146}

Marshall's last commerce clause opinion was in \textit{Willson v. Black Bird Creek Marsh Co.}\footnote{147} There, he upheld a state law that authorized construction of a dam across a navigable creek even though the dam obstructed all shipping, including those with federal licenses, on the creek.\footnote{148} Although \textit{Willson} appears inconsistent with \textit{Gibbons} and \textit{Brown}, "there was no specific federal legislation to which Marshall could point as a basis for showing a clash between the federal and state authority."\footnote{149} Absent a conflict, the Delaware statute stood as an act within the police power of the state.\footnote{150}

These early cases centered on whether the Court characterized the state regulation as a regulation of interstate com-

\begin{enumerate}
\item \textit{Gibbons}, 22 U.S. at 189-90.
\item \textit{Gibbons v. Ogden}, 22 U.S. (9 Wheat.) 1, 196 (1824).
\item 25 U.S. (2 Wheat.) 419 (1827).
\item \textit{Id.} at 445.
\item 27 U.S. (2 Pet.) 245 (1829).
\item \textit{Id.} at 251-52.
\item S. Konefsky, \textit{supra} note 143, at 226.
\end{enumerate}
merce, and thus invalid, or whether the Court characterized the state regulation as a valid exercise of state police power.151 This interpretation continued to be used by the Court until 1852 when the concept of the dormant commerce clause evolved.152

*Cooley v. Board of Wardens* marked the resolution of the Court's adoption of a "middle ground" approach, resolving commerce clause issues by applying the doctrine of "selective exclusiveness."153 The Court found that it was the nature of the regulated activity, rather than the existence of Congressional legislation, which determined whether the commerce clause applied.154 *Cooley* involved the validity of the Pennsylvania Act of 1803 that required ships entering or exiting the port of Philadelphia to take on local pilots. The statute was upheld, signaling a rejection of Marshall's view that Congressional power is exclusive and states are without authority to regulate. *Cooley* held that "states could regulate in matters of commerce so 'local' in character as to demand diverse treatment, and Congress alone could regulate matters so 'national' in character that a single, uniform system or plan was necessary."155

The result of *Cooley* led the Supreme Court to look at the nature of the regulated activity in its future cases.156 Still, this "local-national" distinction needed refinement.157 A problem remained: how should the court reconcile conflicting state and federal interests? Although various mechanical tests were formulated, none was particularly successful in resolution of this problem.158 The Court needed a balancing test,159 and, indeed, developed such a test in a series of natural resources cases that weighed the conflicting state and federal interests.

151. See J. Nowak, supra note 127, § 8.2, at 263-64.
152. Id. § 8.1, at 261 (for definition of "dormant commerce clause").
154. Id. at 315-16.
156. Id.
158. Id.
159. Id. § 6.10, at 427-29.
2. State Regulation of Natural Resources

In its early decisions, the Court upheld states' regulation of natural resources, balancing the state interest in the regulation against the burden that the regulation placed on commerce.

The first natural resources case posing a commerce clause question for the Supreme Court was *Geer v. Connecticut*.\(^{160}\) *Geer* involved a Connecticut law which made the killing of certain game birds for shipment out of state illegal. The Court upheld the statute, concluding that the state could regulate the transportation of wild game killed in the state from being moved out of the state.\(^{161}\) The *Geer* Court reasoned that wild game could be regulated because it was not an article of interstate commerce.\(^{162}\) The Court was satisfied with drawing a distinction between internal and external commerce as the way to determine when the federal government should have broad control over commerce and when the state should retain control.\(^{163}\) The *Geer* decision reflected developing commerce clause analysis and the struggle between broad federal control and state sovereignty.\(^{164}\)

*Hudson County Water Co. v. McCarter*\(^{165}\) was the first water case to be decided under the dormant commerce clause. *Hudson* involved a dispute over a New Jersey statute which read, "'[i]t shall be unlawful for any person . . . to transport or carry, through pipes . . . the waters of any fresh water . . . of this state into any other state, for use therein.'"\(^{166}\) The Court upheld the statute, firmly establishing the right of the individual state to prevent the export of its water. Justice Holmes' opinion disposed of the commerce clause argument and relied on the common law concept of state ownership of all of its natural resources.\(^{167}\) He reasoned that few other interests are as obvi-

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161. *Id*. at 535.
162. *Id*. at 532 (the commerce in game was only internal commerce).
163. *Id*. at 532-35.
164. The court had long held to the fiction that the state in which the wild game was found could forbid the harvest of those animals for export because the state "owned" the wild animals within its borders. Although the commerce clause forbade the states to interfere with the stream of commerce channelled and travelled by the nation's citizens, nothing in the constitution required the states to put their own possessions up for sale. L. Tribe, *supra* note 157, § 6.10, at 428 (1988).
165. 209 U.S. 349 (1908).
166. *Id*. at 353 (quoting the 1905 New Jersey laws).
167. *Id*. at 355-58.
ous as the maintenance of state waters. 168

The third case involving state regulation of natural resources and the dormant commerce clause was City of Altus v. Carr. 169 Anticipating future water shortages, the City of Altus, Oklahoma, contracted to purchase ground water pumped from land in Wilbarger County, Texas. Several months later, the Texas Legislature approved a statute which prohibited the exportation of ground water from Texas wells without express approval of the legislature. The federal district court found that the statute unconstitutionally burdened interstate commerce. The district court rejected Texas' arguments that the purpose of the statute was to conserve natural resources and to regulate underground water, which was argued not to be a part of commerce. 170 The state's argument was analogous to that made in two natural gas cases which had been rejected by the Supreme Court. 171 Altus was distinguished from Geer and Hudson, because the statutes in those two cases were enacted for conservation purposes, while the statute in Altus was meant to further the economic interests of the state. The Supreme Court affirmed the Altus decision without opinion, and without specifically overruling Hudson. The result was a tension between Hudson and Altus, leaving unanswered the question: is water an article of commerce?

Geer, Hudson, and Altus demonstrated the Court's evolving approach for dealing with natural resources as articles of commerce. The Court had moved away from allowing states to regulate their natural resources without federal intervention toward complete federal control of natural resources.

3. Modern Natural Resources Cases

The solution to this conflict between Hudson and Altus, began taking shape in 1979 with the Supreme Court's decision in Hughes v. Oklahoma. 172 In Hughes, an Oklahoma statute prohibited the shipping of minnows, caught in Oklahoma, out of state. The Court expressly overruled Geer, noting that if the decision was allowed to stand, "statutes imposing the most ex-

168. Id.
170. Id. at 838-40.
treme burdens on interstate commerce...were the most immune from challenge."\(^{173}\)

After rejecting \textit{Geer}, the \textit{Hughes} Court applied its formulation from \textit{Pike v. Bruce Church, Inc.},\(^ {174}\) and, overruled the Oklahoma minnow statute. The "\textit{Hughes test}" was much more narrow than any analysis under \textit{Geer}. The test involved three parts. First, the Court determined whether the challenged statute regulated evenhandedly, treating residents of the home state the same as residents from outside the state. The Court looked at the effects the statute had on interstate commerce to determine if they were incidental or if the statute, on its face, discriminated against commerce.\(^ {175}\) Second, the Court determined whether the statute served a legitimate local purpose. The legislature's stated purpose was not the stopping point; the Court looked past the name, description, or characteristics given it by the legislature.\(^ {176}\) Finally, the Court determined whether the statute's purpose could have been accomplished by an alternative method, less burdensome on interstate commerce.\(^ {177}\) Statutes regulating a state's natural resources fail, despite a legitimate purpose, if the regulation attempted to give the state's residents an economic advantage over non-residents, or if there were a less burdensome alternative not pursued.\(^ {178}\)

Three years later, the Supreme Court applied the \textit{Hughes} test to a water case and overruled a Nebraska statute. In \textit{Sporhase v. Nebraska ex rel. Douglas}\(^ {179}\) a landowner owned contiguous tracts of land in Nebraska and Colorado. His well, located in Nebraska, was used to irrigate both tracts of land. This transfer of water was prohibited by a statute which required a permit to use Nebraska water outside the state. The landowner did not apply for the permit because the Nebraska statute required reciprocity from the state to which the water was being deliv-

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\(^{173}\) \textit{Id.} at 335.

\(^{174}\) 397 U.S. 137 (1970). The \textit{Pike} test was created by the Supreme Court to determine the validity of state legislation under the dormant commerce clause. The test balances the burdens state statutes impose on interstate trade with the putative local benefits. \textit{See} Maine v. Taylor, 447 U.S. 131 (1986).

\(^{175}\) \textit{Hughes}, 441 U.S. at 336, 337.

\(^{176}\) \textit{Id.} at 336, 337 (citing \textit{LaCoste v. Louisiana Department of Conservation}, 263 U.S. 545, 550 (1924)).

\(^{177}\) \textit{Id.} at 336-38.

\(^{178}\) \textit{See} J. \textit{Nowak}, \textit{supra} note 127, \$ 8.9.

\(^{179}\) 458 U.S. 941 (1982).
ered. Colorado did not have such a provision. The issue before the Supreme Court was whether Nebraska could continue to restrict or prohibit water exports by requiring reciprocity for out-of-state uses.\textsuperscript{180} Nebraska attempted to distinguish groundwater from other natural resources, arguing that a surface owner enjoyed less of an ownership interest in water than in game birds or minnows, and that water was essential for human survival. The Court rejected these arguments and ultimately held that water was an article of commerce.\textsuperscript{181} This decision implicitly overruled \textit{Hudson} which was already of dubious validity since \textit{Hughes} overruled \textit{Geer}, the case on which \textit{Hudson} was based.\textsuperscript{182}

Because the \textit{Sporhase} Court declared water an article of commerce, the \textit{Pike} test was applied to the Nebraska statute. The Court did not question the purpose of the statute, which was legitimate, and found the requirements that withdrawal of water as to quantity, conservation purposes and use were reasonable.\textsuperscript{183} Instead, the Court struck down the Nebraska statute because of the reciprocity provision.\textsuperscript{184} It failed to see any evidence that the reciprocity provision was narrowly tailored to the state's conservation and preservation goals.\textsuperscript{185} The Court was reluctant to condemn state regulations of water resources because water is a "vital resource."\textsuperscript{186} However, for the regulation to be valid, it must not impermissibly burden commerce or discriminate against out-of-state users.\textsuperscript{187}

Initially, the \textit{Sporhase} decision seemed to affect dramatically the state's ability to conserve water for its own citizens. That effect may be limited, however, because the Court specifically stated that states may still restrict or even prohibit water exports, provided they do so without discriminating against out-of-state users.\textsuperscript{188} It is still unclear how much regulation will be permitted. The "narrow tailoring"\textsuperscript{189} requirement of \textit{Sporhase}

\begin{itemize}
\item \textsuperscript{180} \textit{Id.} at 944.
\item \textsuperscript{181} \textit{Id.} at 953.
\item \textsuperscript{182} \textit{See} Hughes v. Oklahoma, 441 U.S. 322 (1979).
\item \textsuperscript{183} \textit{Sporhase}, 458 U.S. at 954.
\item \textsuperscript{184} \textit{Id.} at 957-58.
\item \textsuperscript{185} \textit{Id.}
\item \textsuperscript{186} \textit{Id.} at 956.
\item \textsuperscript{187} \textit{See supra} notes 175-178, and accompanying text.
\item \textsuperscript{188} \textit{See generally} \textit{Sporhase}, 458 U.S. at 954-58.
\item \textsuperscript{189} \textit{Id.} at 957-58.
\end{itemize}
may defeat virtually all state regulations, despite the Court's specific allowance for state regulation.

For a state's regulation to withstand the strict scrutiny analysis of the Court, alternative options must be explored. The next section will present a number of different measures to regulate diversions which the Great Lake states might consider, and will evaluate the likelihood that each can withstand the Court's scrutiny.

B. Potential State Regulation of Out-of-State Appropriations of Great Lakes Water

1. Market Participation Exception

Currently, there is one recognized exception to state laws which burden commerce. The "market-participant" exception established by the Supreme Court allows a state to discriminate against non-citizens when the state acts as a participant in the marketplace and not as a regulator of other market participants. Therefore, if a Great Lakes state enters the water diversion market, the state could, theoretically, limit where the water was initially diverted. The word "theoretically" should be emphasized, because certain limits exist. The "market-participant" exception only applies to the initial sale of the product. In addition, the state may not prevent subsequent sales or attach too many restrictions to the sale. Any attempt by the state to exceed these limitations violates the commerce clause.

In Hughes v. Alexandria Scrap Corp., the Court established the market-participant exception to the commerce clause. The case involved a Maryland law that encouraged the scrapping of inoperable automobiles. The Court held that Maryland's requirement of extensive proof of ownership from non-residents, but not from residents, did not violate the commerce clause. The Court concluded that the Maryland statute did not erect a trade barrier and, therefore, was not in conflict with

191. Reeves, 447 U.S. at 440; Hughes, 426 U.S. at 810.
193. Id. at 98-99.
194. Id. at 99.
196. Id. at 800-01.
the commerce clause. The Court found that "[n]othing in the purposes animating the Commerce Clause prohibits a State, in the absence of congressional action, from participating in the market and exercising the right to favor its own citizens over others." Therefore, the Court distinguished this kind of activity from regulations that burden interstate commerce and violate the commerce clause.

In 1980, another market-participant case was decided by the Supreme Court. In Reeves, Inc. v. Stake, the Court relied on the market-participant concept when it held that South Dakota, in the face of a cement shortage, could limit the sale of cement produced by a state owned and operated cement plant to state citizens. The Court concluded that the commerce clause applied only to state taxes and regulatory activities which burden interstate commerce, and was not intended to prevent a state from acting freely in the market place.

The market-participant issue arose again in 1983, when the Court considered whether a city was a market-participant in a construction project and whether the city could constitutionally require that one-half of the work crew be city residents. In White v. Massachusetts Council of Constr. Employers, the Court held that to the extent that the city expended its own money on the construction project, it was a market-participant and should be treated as such. The Court said that Alexandria Scrap and Reeves stood for the proposition that "when a state or local government enters the market as a participant it is not subject to the restraints of the Commerce Clause." The question, therefore, should be whether the state’s action was indeed direct participation in the market. The Court remained silent, however, as to how far the state as a market-participant could go in attaching conditions to contracts. It was not long before limitations were necessary.

In South-Central Timber Dev. v. Wunnicke, the Court examined the Alaska Department of Natural Resources "primary manu-
facture” clause attached to its timber harvest contracts. The clause required that all timber taken from state lands be partially processed in Alaska before the timber could be shipped outside the state. When an Alaska corporation that operated a mill outside the state challenged the statute, the Supreme Court held that it unconstitutionally burdened commerce. The Court found that Alaska was a participant in the timber market, but not in the processing market, and thus, distinguished Wunnicke from the three previous market-participant cases. “The limit of the market-participant doctrine must be that it allows a State to impose burdens on commerce within the market in which it is a participant, but allows it to go no further.” The state could not attach a provision to a contract that “imposes conditions downstream in the timber-processing market.” As noted in Reeves, commerce clause scrutiny will be more rigorous when a restraint upon a natural resource such as coal, timber, wild game or minerals is involved. Not only was the Alaska regulation a restraint on foreign commerce and a restriction on resale, it was impermissibly regulating a natural resource.

The market-participant exception seems to make possible the entrance of one or all of the Great Lakes states into the water diversion market. A state could enter the market by diverting water from the Great Lakes for use within its borders and sell the water to its own citizens on a preferred basis as in Reeves. As a market-participant, rather than a market regulator, a state’s prohibition of water exports would be protected by the market-participant exception. However, there are potential problems for a state that relies on this exception in an attempt to regulate or prevent water diversions from the Great Lakes.

A state that sells water to one of its citizens could not bar the resale of the water to an out-of-state purchaser, because under Wunnicke that ban would “impose[] conditions downstream in the . . . market.” A state that restricts foreign commerce, resale, or natural resources will find that, under Reeves, com-
merce clause scrutiny will be more rigorous. Because *Sporhase* held that water was an article of commerce, it is likely that the higher standard of review would be triggered. Therefore, states entering the water market as a market-participant are not guaranteed protection from unwanted diversions of water.

2. **Pricing or Taxing Water**

Another possible measure available to the Great Lakes states which would allow for some control over the appropriation of their waters is pricing, or taxing, the severance of the water.

The tenth amendment reserves for the states a certain degree of sovereignty which they had enjoyed prior to the formation of the Union.\(^{210}\) One of those sovereign powers retained by the states is the right to tax citizens and property within their boundaries.\(^{211}\) This right is original in the states and has never been surrendered.\(^{212}\) The states' discretion to tax is restrained only by the will of the people expressed in the state constitutions, or through elections.\(^{213}\) Accordingly, the only restraint on a state severance tax on water taken from the Great Lakes is that it not "burden or embarrass the operations of the National government."\(^{214}\)

Three cases, known as the "*Heisler Trilogy,*"\(^{215}\) shaped the Supreme Court's position on states imposing severance taxes on natural resources. The cases, all involving corporate taxpayers who challenged state resource taxes on commerce clause grounds, were decided during the 1920's when the Supreme Court supported laissez-faire economics and before it began to broaden the scope of the federal commerce power. The taxpayers argued that the taxes posed undue burdens on and discriminated against interstate commerce. These argu-

\(^{210}\) "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people." U.S. CONST. amend. X.

\(^{211}\) Nathan v. Louisiana, 49 U.S. (8 How.) 73, 79 (1850).


\(^{213}\) Railroad Co. v. Peniston, 85 U.S. (18 Wall.) 5, 30 (1873).

\(^{214}\) *Id.* at 30.

\(^{215}\) The Heisler Trilogy is comprised of the following cases (in order of decision): *Heisler v. Thomas Colliery Co.*, 260 U.S. 245 (1922); *Oliver Iron Mining Co. v. Lord*, 262 U.S. 172 (1923); *Hope Natural Gas Co. v. Hall*, 274 U.S. 284 (1927). In these cases, corporate taxpayers challenged state resource taxes on commerce clause grounds. They argued that the taxes posed undue burdens on and discriminated against interstate commerce.
ments were rejected by the Court, which concluded that the
tax applied to the act of severance or production, which pre-
ceded the flow of commerce, and therefore, was not subject to
commerce clause constraints.

*Heisler v. Thomas Colliery Co.* involved a challenge to a tax that
was levied on a type of anthracite coal found only in a few
counties in Pennsylvania.\(^{216}\) Pennsylvania had a monopolistic
bargaining position due to the uniqueness of the coal, eighty
percent of which was shipped out-of-state where the coal was a
necessity because of local laws that prohibited the use of other,
more prevalent types of coal with higher sulfur content. The
tax was challenged on two grounds: (1) that the tax was arbi-
trary and violated the equal protection clause of the fourteenth
amendment because it applied only to anthracite coal; and (2)
that the tax upon coal, most of which was shipped out-of-state,
was a discriminatory burden on interstate commerce, and thus,
vviolated the commerce clause.\(^ {217}\)

The Supreme Court held that the tax preceded the coal's
entry into the stream of commerce because the tax was levied
before shipment when the coal had been mined. Therefore, it
did not violate the commerce clause. The Court reasoned that
if the fact that a product was destined to be shipped out-of-
state was sufficient to place the product in the flow of interstate
commerce, the state would not be able to tax any commercial
activities within its own borders.\(^ {218}\)

This position regarding taxation of natural resources was re-
inforced by *Oliver Iron Mining Co. v. Lord*.\(^ {219}\) The Supreme
Court held that mining was not interstate commerce, but
rather a local business subject to local regulation and taxa-
tion.\(^ {220}\) The tax levied on mining was upheld by the Court,
despite the fact that nearly all of the ore mined in Minnesota
was shipped out-of-state.

\(^{216}\) 260 U.S. 245 (1922). The coal was taxed at 1 1/2% per ton based on value at
the time the coal was prepared for shipment, i.e. “washed, screened, or otherwise
prepared for market.” *Id.* at 253.

\(^{217}\) *Id.* at 254–55.

\(^{218}\) *Id.* at 260–61. If the Court had held that the intent to export a state’s product
was sufficient to place that product in the flow of interstate commerce, then, from the
time the product was produced, planted or grown, the product could be federally
controlled. This would mean that fruit in California or cotton in the South could be
controlled by federal regulations.

\(^{219}\) 262 U.S. 172 (1923).

\(^{220}\) *Id.* at 178.
The third case in the trilogy was *Hope Natural Gas Co. v. Hall.*\(^{221}\) There, the Court upheld a West Virginia tax levied on the production of natural gas. The Court was now settled on the principle that a privilege or occupation tax on mining or production of resources did not violate the commerce clause.\(^{222}\)

The *Heisler* trilogy stands for an early distinction between activities “in” commerce and those “not yet in the flow” of commerce. This distinction essentially meant that these natural resource taxes would not violate the commerce clause if they were facially nondiscriminatory and levied upon the production, extraction, or removal of the resource prior to its entry into the stream of commerce.\(^{223}\) This distinction remained sound until 1981\(^{224}\) when there was a general shift by the Supreme Court away from the formalistic commerce clause tests towards a balancing approach. This approach balances competing interests with the Court’s requirement that state laws which restrict commerce in natural resources be subject to a higher level of scrutiny than other state laws.\(^{225}\)

In *Commonwealth Edison v. Montana,* four Montana coal producers and eleven out-of-state utilities challenged an increase in a Montana coal mining tax.\(^{226}\) Of the coal that was being taxed, as much as ninety percent was shipped out-of-state.\(^{227}\) The taxpayers were required to show two things to prove that the tax unduly burdened interstate commerce. First, the taxpayers had to persuade the Court that its early decisions, particularly *Heisler,* which seemed to exempt state severance taxes from scrutiny under the commerce clause, were no longer good authority.\(^{228}\) Second, they had to establish that the more modern test, articulated by the decision in *Complete Auto Transit, Inc. v.*

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221. 274 U.S. 284 (1927).
222. *Id.* at 287–88. The annual privilege tax on the business of producing natural gas “as shown by the gross proceeds derived from the sale thereof by the producer” is not unconstitutional with regard to the transportation and sale of gas in other states, since it is required that the tax be computed on the value of the gas at the well before it enters interstate commerce. *Id.*
223. *Id.* at 287–89.
225. *Id.* at 617.
226. *Id.* at 613. “The tax is levied at varying rates depending on the value, energy content, and method of extraction of the coal, and may equal, at a maximum, 30% of the ‘contract sales price.’” *Id.*
227. *Id.* at 617.
228. *Id.*
Brady,\textsuperscript{229} required invalidation of the tax.\textsuperscript{230}

The coal producers and out-of-state utilities had little difficulty in persuading the Court to reject the Heisler theory of distinguishing between economic activity that was "local" and that which was "interstate." The Court agreed with the assertion that the tax was subject to review under the commerce clause, reasoning that state taxes or regulations were no longer "immune from Commerce Clause scrutiny because it attaches only to 'local' or intrastate activity."\textsuperscript{231} The goal in reviewing commerce clause challenges, as stated by the Court, was to " 'establish a consistent and rational method of inquiry' " with its focus on " 'the practical effect of a challenged tax.' "\textsuperscript{232}

The Court expressly abandoned the "local/interstate" distinction as the controlling test,\textsuperscript{233} and a test not unlike those in other areas of state regulation took its place. In adopting the test established in Complete Auto Transit, the Court asserted that its prior decisions were not based on the "formal language" of the taxes but on the practical effect of the taxes.\textsuperscript{234} A state tax will withstand attack under the commerce clause if the tax meets four criteria: "[1] the tax is applied to an activity with a substantial nexus with the taxing State, [2] is fairly apportioned, [3] does not discriminate against interstate commerce, and [4] is fairly related to the services provided by the State."\textsuperscript{235}

\textbf{a. Substantial Nexus with the State}

The nexus requirement is used by the Court to invalidate state taxes with only a slight relationship to a transaction. This

\begin{footnotesize}
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  \item \textsuperscript{229} 430 U.S. 274 (1977).
  \item \textsuperscript{230} Commonwealth Edison Co., 453 U.S. at 614.
  \item \textsuperscript{232} Commonwealth Edison Co., 453 U.S. at 615 (quoting Mobil Oil Corp. v. Commissioner of Taxes, 445 U.S. 425, 443 (1980)).
  \item \textsuperscript{233} Complete Auto Transit, Inc. v. Brady, 430 U.S. 274, 288-89 (1977) (relating to invalidation of state taxes under the commerce clause); Pike v. Bruce Church, Inc., 397 U.S. 137, 141-42 (1970) (relating to invalidation of state regulations under the commerce clause); Wickard v. Filburn, 317 U.S. 111, 124-25 (1942) (relating to congressional power under the commerce clause).
  \item \textsuperscript{234} Commonwealth Edison Co., 453 U.S. at 615-16; see Williams, Severance Taxes and Federalism: The Role of the Supreme Court in Preserving a National Common Market for Energy Supplies, 53 U. COLO. L. REV. 281, 286 (1981).
  \item \textsuperscript{235} Complete Auto Transit, 430 U.S. at 279.
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\end{footnotesize}
requirement ensures the notion of fairness, and prevents the tax from being too burdensome on interstate activities. The nexus requirement also helps reduce the possibility of multiple taxes. Because severance of the coal occurs before the products enter the market, and occurs only once, the Montana Supreme Court found that "'the only nexus with the severance of coal is established in Montana.'"

b. **Fair Apportionment**

This requirement is directed at preventing a burden of cumulative payments on interstate commerce. Thus, the question is whether the taxpayers' activities are taxed in a manner proportionate to his contacts with the state.

The Supreme Court in *Commonwealth Edison* found no difficulty with this question, as the "'severance can occur in no other state'" and "'no other state can tax the severance.'"

c. **Nondiscrimination**

The commerce clause has consistently been used to "strike down state taxes that unreasonably benefit local commerce at the expense of interstate commerce." A tax which results in higher payments by out-of-state taxpayers does not necessarily make it discriminatory, if the tax is levied equally.

The Supreme Court held that Montana's severance tax was evenly applied to both in-state and out-of-state purchasers of the coal and was, therefore, nondiscriminatory. In addition, the Court looked at the effect of the tax and found the mere fact that ninety percent of the coal was shipped out-of-state to be an "adventitious consideration[]."

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239. *Id.*

240. *Id.*


d. Fair Relationship to Services

The last requirement of the test imposes the limitation that the tax be reasonably related to the extent of the interstate contacts. Any power the state exerts must be in proper proportion to the taxpayer's activities within the state, and to the taxpayer's subsequent protection and opportunities provided by the state.\(^{243}\)

Because Montana's severance tax was measured as a percentage of the value of the coal taken, the Supreme Court found that the tax was in "'proper proportion'" to the activities of the taxpayers in the State of Montana.\(^{244}\)

When a tax is assessed in proportion to a taxpayer's activities or presence in the State, the taxpayer is shouldering its fair share of supporting the State's provision of "police and fire protection, the benefit of a trained work force, and 'the advantages of a civilized society.'"\(^{245}\)

If one of the Great Lakes states were to tax the removal of water from the Great Lakes, the scheme would be subject to this four-prong commerce clause test, as interpreted by Commonwealth Edison. It is feasible that a state's tax scheme could meet each of the four requirements. Specifically, the Court would not have difficulty resolving the nexus requirement because the water would be taxed as it was removed. Nor would the Court have difficulty resolving the fair apportionment requirement, provided that the tax was noncumulative. A tax levied by one of the Great Lakes states would be found by the Court to be nondiscriminatory as well, if it were levied upon citizens and non-citizens alike.

However, it is also quite likely that, given a desperate need for the water on which the health and welfare of a state's citizens depend, and the tremendous burden on the taxpayers with that need, the test could be used to invalidate any tax scheme. The difficulty would come in the application of the fourth part of the test, the fair-relationship-to-services requirement.\(^{246}\) A tax would be required to have a reasonable relationship to the taxpayer's contacts with the state. Although a

\(^{243}\) Id. at 626; General Motors Corp. v. Washington, 377 U.S. 436, 441 (1964).

\(^{244}\) Commonwealth Edison Co., 453 U.S. at 626 (quoting General Motors Corp., 377 U.S. at 441).

\(^{245}\) Id. at 627 (citations omitted).

\(^{246}\) See Browde & DuMars, supra note 236, at 39.
Great Lakes state might be able to show this relationship to services by placing the tax revenue in the general welfare fund, this might not be enough to withstand commerce clause scrutiny. Under such scrutiny, the Court would have to place a fairly precise dollar figure on the value of the services a taxpayer received from the Great Lakes state. There would seem to be no other way to determine the point at which the tax ceased to be "fairly related" to the services.247 This kind of intangible value would be inherently difficult to determine. The Court would be required to reach conclusions about the right trade-off between such intangibles as environmental quality on one hand, and economic income on the other. When the Court delves into this kind of questioning, a challenged tax scheme that is burdensome to a state in dire need of water resources would not survive.

3. Statutory Regulations

Direct statutory regulation is perhaps the most common way that the Great Lakes states may attempt to protect their water from diversion. Because the federal government does not extensively regulate individual water rights,248 states have developed their own statutes and common law to deal with the water rights of landowners.249 For many years state statutes that restricted the appropriation of water went unchallenged.250 In order to defend its statutes, a state only needed to show that the water was unique to its particular needs, and that it was in the state's best interest to conserve the water within its boundaries for use by its own citizens.251

Although states enact statutes in order to regulate all kinds of commerce, the Supreme Court has not looked favorably upon state regulations that restrict natural resources.252 When a state does enact restrictions on the export of water, it must consider one important question—to what degree may a state

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247. Complete Auto Transit, 430 U.S. at 279.
250. Id.
251. See id. at 112-13.
252. See Comment, Commerce Clause Limits States' Ability to Stop Groundwater Exports: Supreme Court Overturns Nebraska Reciprocity Rule, 12 ENVTL. L. REP. 10083, 10086 (1982) (a publication of the Environmental Law Institute).
restrict the flow of water in interstate commerce and still withstand commerce clause scrutiny? Of the three types of statutes a state could enact to protect its interest in water, only one could possibly withstand commerce clause scrutiny. These statutes are considered below.

a. **Outright Embargo**

An absolute embargo on water exports would have to meet the strict scrutiny test because it would be a discriminatory statute on its face. In enacting such a statute a state must show that the state has a legitimate purpose, that the statute is narrowly tailored to achieve that purpose, and that no other adequate non-discriminatory alternative existed. The “narrow tailoring” requirement would present serious problems for a state arguing that its outright ban on the exportation of water did not run afoul of the commerce clause. *Sporhase* indicates that a state that is suffering from a severe water shortage might be able to show a close “means-ends relationship.” In all likelihood, however, it would also be necessary for that state, by asserting water conservation as its legitimate purpose, to impose severe water use restrictions on its own citizens as well. In establishing this “close fit,” the state would also be establishing the even-handed application of the embargo to both citizens and non-citizens alike. In addition, the state would be required to show that the embargo was necessary for the health and welfare of its citizens, and not to protect some economic interest. If the embargo was enacted to protect some economic interest, the statute would be struck down as economic protectionism.

The only decisions since *Sporhase* addressing the constitutionality of an embargo statute came in 1983 and on re-

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258. *City of El Paso v. Reynolds*, 563 F. Supp. 379 (D.N.M. 1983). This case raises the question of the constitutionality of New Mexico’s prohibition of the out-of-state export of ground water referred to by the court as “the New Mexico ground water embargo.” *Id.* at 381.
mand, again, in 1984. In *City of El Paso v. Reynolds*, the Federal District Court for the District of New Mexico held that New Mexico's embargo statute did not pass the requirements set out in *Sporhase*. The court found that New Mexico's purpose in enacting the statute was not to protect the health of its citizens, but rather to conserve its water for economic development within the state. The court also evaluated the narrow tailoring of the statute and said that "there [was] no present or imminent shortage of water in New Mexico for health and safety needs."

Following the declaration that the statute was unconstitutional, the state legislature repealed it. The legislature then enacted provisions that dealt with out-of-state water use, and also amended the water code. State officials appealed the first *El Paso* decision and the court of appeals vacated the judgment and remanded. On remand, the district court, held that the new statute was not facially unconstitutional. The court declared that the criteria set out for evaluating applications for domestic wells and transfers of existing rights where the water is to be used outside the state—criteria based only on conservation and public welfare—did not discriminate on its face against interstate commerce. However, the imposition of a two-year moratorium on new appropriations of groundwater, on its face, disclosed an impermissible, discriminatory purpose.

Thus, Great Lakes states which wish to avoid commerce clause concerns must avoid exercising their regulatory powers in ways that discriminate against out-of-state water users, and demonstrate instead, an even-handed approach to regulation. This even-handedness is the hallmark of Minnesota law. The legislative approval previously required only for out-of-

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261. *Id.* at 389.
262. *Id.* at 391.
263. *Id.* at 390.
267. *Id.*
268. *See id.* at 704–07. The court found that even if the statute regulated even-handedly, its purpose was to completely block interstate commerce in water, and that purpose was illegitimate.
state diversions now applies to all diversions of a certain size. However, the provision of state law discouraging out-of-state diversions is not apparently based on any demonstrable need to conserve water for Minnesotans and, in any event, it is not clear why discouraging out-of-state diversions is the appropriate response to such a concern. All diversions, and for that matter, all consumptive uses, presumably have the same effect on remaining water supply. Discouraging only out-of-state uses is not likely to meet the test of narrowly-focused state responses to state needs that minimize the effect on interstate commerce.

b. Reciprocal Statutes

Reciprocal statutes permit the transfer of water only to states from which water can be imported. Reciprocal statutes act as absolute embargoes when the state seeking appropriation does not export to the state with the statute. They would not, therefore, withstand commerce clause scrutiny because the "close fit" requirement could never be met. The Sporhase decision has eliminated the state's option of reciprocal statutes to regulate water.

c. Discretionary Statutes

A discretionary statute gives authority to a state administrative agency, or to the legislature, to determine the permissibility of water exports. Discretionary statutes may be the only approach which remain relatively safe from commerce clause challenge. What makes discretionary statutes less likely to be challenged is the presence of a permitting scheme. State permitting schemes provide a basis for granting permits for the diversion of water, and at the same time, prevent the appropriation of water by out-of-state users. Under a permit system, permits are granted for a specific period of time.

269. See Minn. Stat. § 105.405, subd. 2 (1986).
270. See Minn. Stat. § 105.405, subd. 2 (1988).
273. See Schwartz, supra note 249, at 130.
275. Id. at 497-98.
276. Id. at 498.
The permit is subject to modification or cancellation if a breach of the conditions of the permit occurs,\(^{277}\) or if there is an extended period of non-use,\(^{278}\) or if necessary to protect those use priorities outlined in the permitting statute. The permit system may provide for suspension of permits in the event of a drought or other emergency.\(^{279}\) Minnesota's water appropriation permit system contains all of these features.\(^{280}\)

Permitting schemes vary among the Great Lake states. Each state, nevertheless, does provide a list of the purposes that must be considered in the approval of an application permit for diversion. The purposes may include domestic use, municipal, industrial, agricultural, fish, wildlife, recreational, power, navigation, and quality control purposes. Some of these purposes could be construed to involve public health and safety interests, while others involve mere economic interests. A water commissioner's denial of a permit must be based on public health and safety criteria. However, if the applicant has a great public health purpose in the use of the water, the commissioner's denial must be based on sound technical data to demonstrate the impact on the state.\(^{281}\) A court will typically defer to a decision based on such data.

A permitting scheme not facially discriminatory may nevertheless be found to discriminate against out-of-state users and may be in violation of the commerce clause. Therefore, it is important that the commissioner, in considering each application, use clearly established standards set out by the statute. Each decision must be made impartially without regard to where the water is to be used or who the applicant is. A discretionary statute would be upheld if: (1) the permitting criteria used was not barred by Congressional action;\(^{282}\) (2) the standards set out a legitimate state purpose such as conservation;\(^{283}\) and (3) the statute regulates "evenhandedly" such that requirements for water use by non-citizens are not more restrictive than requirements for citizens.\(^{284}\)

\(^{277}\) Id.
\(^{278}\) Id.
\(^{279}\) Id.
\(^{281}\) See generally FINAL REPORT supra note 70, at 30–31.
\(^{283}\) Id. at 954–55.
\(^{284}\) Id. at 954, 956.
The *Sporhase* decision not only restricted states’ authority over water rights, it also affirmed Congress’ plenary commerce power over water. Although the Supreme Court was reluctant to erode the states’ power to regulate water, it recognized Congress’ power to bar all export restrictions, if it wished, or even to preempt state water law. It is unlikely that Congress would act in this way, and thus, the effects of *Sporhase* are fairly limited for the time being. The Great Lake states remain free to conserve their water through statutory regulations enacted in accordance with commerce clause principles.

### III. WATER RESOURCES DEVELOPMENT ACT

An extraordinary development in this balance between state interest in regulation and the limitations on state action by the commerce clause occurred in 1986 when Congress enacted section 1962d-20 of the Water Resources Development Act. This section, the Prohibition on Great Lakes Diversion, forbids any diversion of Great Lakes water for use outside the Great Lakes basin unless the diversion is approved by the governor of each of the Great Lakes states. In addition, it provides that no federal agency may undertake any studies that would involve the same sort of transfers.

This provision is intended to protect the eight Great Lakes states and the two Canadian provinces. Senator Metzenbaum of Ohio, who introduced the Senate amendment in March 1986, outlined the repercussions of ignoring the possibility of massive diversions:

There is no question that massive diversions of water from the lakes would wreak economic and environmental havoc on the States and Provinces of the region. Important water supplies, that are already being depleted by growing consumption, would be dangerously reduced. Losses would occur in hydropower production. Fish and wildlife would be adversely affected by a loss of wetlands. Moreover, the Great Lakes shipping industry would suffer severe economic losses if forced to use smaller ships because of lower

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287. *Id.*
288. *Id.*
Metzenbaum noted that the amendment was the product of concern expressed by Great Lakes officials and that regional cooperation and regional consent was the intent of the amendment.

During its early legislative stages, the Senate version of this provision did not prohibit diversions. The House version required that the governors of all the Great Lakes states, and the International Joint Commission (IJC) must jointly approve of any diversion. Eventually, however the differences were reconciled by Congressman Nowak and the result is that diversions are now prohibited without the approval of the governors of the Great Lakes states. Federal agencies are also prohibited from undertaking any studies that would involve the transfer of water for use outside the Great Lakes basin. The language finally enacted makes no mention of the IJC.

The prohibition contained in section 1962d-20 reflects Congress' acknowledgement of the value of the lakes to the region.


290. Id. Senator Metzenbaum noted: "In June 1982, officials from each of the eight Great Lakes States and the Provinces of Quebec and Ontario unanimously approved a resolution opposing any diversions of Great Lakes water without regional consent." Id. This resolution and the passing of the prohibition established that the Great Lakes states retained jurisdiction over the water. Id.


292. See H.R. 6, 99th Cong. 1st Sess. (1985). This early House version provided a role for the IJC in that approval for any diversions must come from all eight Great Lakes states and the IJC. Id. Senator Abdnor's version of S. 1109, on the other hand, contained only a prohibition on the undertaking of any studies for the purpose of transferring Great Lakes water for use outside the Basin. See 132 CONG. REC. S3397 (daily ed. March 26, 1986) (amendment to S. 1567).


No Federal agency may undertake any study, . . . of the feasibility of diverting water from any portion of the Great Lakes within the United States, or from any tributary within the United States of any of the Great Lakes, for use outside the Great Lakes basin, unless such study or expenditure is approved by the Governor of each of the Great Lakes states. . . .

Id.

295. Id.
The prohibition is designed to discourage the western states from thoughts of diversion of water from the Great Lakes. It forces western states to plan regional policies for conserving water resources that do not include a greedy eye on the Great Lakes resources.

In constitutional terms, this prohibition amounts to affirmative Congressional exercise of its commerce clause power which, in effect, gives the Great Lakes states permission to embargo out-of-basin diversions of Great Lakes water. In the absence of Congress’ express approval, the states would be barred from doing so. Note, however, that this provision applies only to out-of-basin diversions of Great Lakes water. It does not apply to out-of-state diversions within the basin nor to out-of-state diversions of other than Great Lakes waters. As to those kinds of proposed diversions, the extensive limitations on state regulatory action represented by the dormant commerce clause still apply.

Thus, the main concern of interregional diversion of Great Lakes water has been addressed by Congress. But, while each state may now prevent diversion from anywhere in the Great Lakes, this provision establishes no mechanism for the regional cooperation on Great Lakes management to which Senator Metzenbaum referred. The last part of this article addresses that Congressional interest in regional cooperation and assesses a framework for such cooperation. Before proceeding, however, one other significant limitation on the states’ ability to regulate Great Lakes diversions must be analyzed. Because the Great Lakes are international boundary waters, any diversion from them—whether by the states or the federal governments of the U.S. and Canada—may also be subject to international law.

IV. INTERNATIONAL LAW

There are four main sources of international law: treaties,
custom, general principles of law, and judicial decisions.\textsuperscript{299} Treaties, or international conventions, as they are sometimes called, establish general or particular rules expressly recognized by the signatories. They create international law. International custom is evidence of general practice accepted as law. General principles of law are those recognized by all or most nations. Judicial decisions and teachings of highly qualified publicists of the various nations are subsidiary means for determining rules of international law. All of these sources of international law are pertinent to the issue of potential diversions from the Great Lakes.

The 1909 Boundary Waters Treaty,\textsuperscript{300} ratified by the United States and Great Britain on behalf of Canada, provides for the regulation of the shared use of Great Lakes water and the resolution of all disputes about these lakes.\textsuperscript{301} Although ratified nearly eighty years ago, the Treaty is "still the most important bilateral treaty on the subject of management of the shared freshwater resource" between Canada and the United States.\textsuperscript{302}

The Boundary Waters Treaty provides that the navigation of all boundary waters, and Lake Michigan,\textsuperscript{303} shall remain free for the purposes of commerce to the people of both countries.\textsuperscript{304} The Treaty allows each government to authorize diversions within its own territory,\textsuperscript{305} provided the other

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\item[\textsuperscript{299}] Statute of International Court of Justice art. 38(1) (June 26, 1945). See also Williams, supra note 26, at 162–63.
\item[\textsuperscript{300}] Boundary Waters Treaty, supra note 26.
\item[\textsuperscript{301}] Note, The Great Lakes as a Water Resource, supra note 274, at 471.
\item[\textsuperscript{302}] Williams, supra note 26, at 178–79.
\item[\textsuperscript{303}] The treaty applies generally to "boundary waters" which are defined as "the waters from main shore to main shore of the lakes and rivers and connecting waterways ... along which the international boundary between the United States and ... Canada passes ... ." Boundary Waters Treaty, supra note 26, preliminary article. Lake Michigan does not form part of the Canada-U.S. boundary, but article I of the treaty which guarantees the mutual right of free navigation provides that "this same right ... shall extend to the waters of Lake Michigan." Id., article I. However, the provisions of articles II and III relating to diversions only apply to "boundary waters," waters flowing across the international boundary, and "diversions ... the effect of which would be productive of material injury to ... navigation interests ... ." Id. at art. II, III.
\item[\textsuperscript{304}] The Treaty states that, "[t]he High Contracting Parties agree that the navigation of all navigable boundary waters shall forever continue free and open for the purposes of commerce to the inhabitants ... of both countries equally...." Boundary Waters Treaty, supra note 26, at art. I.
\item[\textsuperscript{305}] Article III of the Boundary Waters Treaty provides that:
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government does not object on the ground of material injury, such as lowered harbor levels, to navigational interests within its territory.\textsuperscript{306} Most importantly, the Treaty establishes the International Joint Commission (IJC).\textsuperscript{307} The Treaty grants the IJC authority to approve or disapprove of any use, obstruction or diversion of boundary waters, or waters that flow from boundary waters, if that use would affect their natural level or flow.\textsuperscript{308}

The IJC is best known for this approval and regulatory function. In recent years, however, the IJC has become more active in environmental problems.\textsuperscript{309} The IJC, composed of six members, three from each country, has a solid reputation for objectivity.\textsuperscript{310} This objectivity has made the IJC’s decisions acceptable to both governments, something rarely achieved by national agencies.\textsuperscript{311}

However, these decisions are of a kind that do not maximize the potential of the IJC as a mechanism for dispute resolution. The Treaty limits the IJC’s authority only to those diversions that affect the natural level and flow of the boundary waters and, it is, therefore, questionable whether the IJC can make decisions regarding small-scale diversions or consumptive uses.\textsuperscript{312} The Treaty does not consider tributary waters as boundary waters, so the IJC may be helpless to control diversions of this water by either country.\textsuperscript{313} In addition, the IJC would probably be reluctant to act upon any diversions from

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[\textit{it is agreed that . . . [no further] or other uses or obstructions or diversions, whether temporary or permanent, of boundary waters on either side of the line, affecting the natural level or flow of boundary waters on the other side of the line, shall be made except by authority of the United States or the Dominion of Canada within their respective jurisdictions and with the approval, as hereinafter provided, of a joint commission, to be known as the International Joint Commission.}\]
\end{flushleft}

\textit{Id.} at art. III.
306. \textit{Id.} at art. II.
307. \textit{Id.} at art. VII, VIII.
308. \textit{Id.} at art. VIII.
310. \textit{Id.} at 370. The Commission has seldom split down national lines in its seventy-five years as a permanent body responsible for Canada-U.S. boundary waters management. \textit{Id.}
311. \textit{Id.}
312. \textit{See Bixby, supra note 1, at 21.}
313. \textit{Id.}
Lake Michigan because the Lake is not a boundary water,\textsuperscript{314} and the treaty does not appear to apply to diversions from Lake Michigan except perhaps those which might affect "navigation interests" in Canada. Lake Michigan could be a "wild card" in the current system of international law.\textsuperscript{315}

Criticisms of the IJC are directed more at the governments which fail to use the IJC in the resolution of disputes which it may be able to settle, rather than at the IJC itself.\textsuperscript{316} Generally, transboundary water and environmental problems are referred to the IJC only when the United States and Canada have conflicting interests.\textsuperscript{317}

The Boundary Waters Treaty of 1909 creates legal rights and duties for both Canada and the United States. It has primacy over any other source of international law in any diversion dispute between the two countries.\textsuperscript{318} Both are expected to act in good faith and reasonableness in applying and interpreting the Treaty.\textsuperscript{319} Although unlikely, the Treaty could be breached by either country and can be terminated under certain circumstances.\textsuperscript{320}

The limited role of the IJC, and the ambiguities regarding tributary waters and Lake Michigan, leave open the question of whether the Treaty could be invoked to prevent either country from diverting water from the Great Lakes. The Treaty does not close the door on the possibility of diversions made by one country and opposed by the other. Even small scale diversions or consumptive uses reasonably approved by both countries and the IJC may have cumulative effects on levels and flows.

Absent a treaty, international custom is another source of law to look to for dispute resolution. International custom ap-
plies to disputes when a treaty exists. Custom fills in the gaps when the Boundary Waters Treaty is silent. Therefore, it is necessary to detail the specific principles that apply for the resolution of disputes between Canada and the United States over the Great Lakes.

The principles of law that govern will depend on the customary practice of the individual states involved in the dispute. The principles used by each state are developed from several sources. For example, one source includes statements and declarations made by government officials to legislatures, opinions of legal advisors to governments, press releases by the government and published extracts from relevant articles. Articles from bilateral or regional treaties are another source. A third source are writings of international jurists and decisions of both national and international courts and tribunals. A fourth source are resolutions or declarations adopted by international organizations. Such resolutions and declarations do not always represent existing international law. They are, however, evidence that the states which have voted in favor of them have accepted them. Lastly, unilateral state action following uniform patterns, over an extended period of time, may also be a source of such principles.

The principles derived from these sources are not binding law and do not impose legal obligations on the states or nations involved. They are, however, important in determining the purpose for the rule and how the rule is applied in a specific case. The principles depend on two main propositions:

(1) Common water resources are to be shared equitably between the states entitled to use them, with related corollaries of (a) limited sovereignty, (b) duty to cooperate in development, and (c) protection of common resources.

321. Williams, supra note 26, at 162-63.
322. Id.
323. Id.
324. Id. at 163.
325. Id. at 162-63.
326. Id. at 163.
327. Id.
328. Id.
330. Id.
(2) States are responsible for substantial transboundary injury originating in their respective territories.\textsuperscript{331} Customary law principles are also incorporated into the Helsinki Rules on the Uses of the Waters of International Rivers adopted by the International Law Association in 1966.\textsuperscript{332} The Helsinki Rules explicitly reject the principle that a country has complete control over its own territory.\textsuperscript{333} The comments to the Helsinki Rules reflect the principle that in the area of international waters, every basin state in an international drainage basin, has the right to the reasonable use of the waters, but the state does not have an unqualified right to use or dispose of the waters.\textsuperscript{334} This limited sovereignty means that a country cannot disregard the consequences of what it does with shared waters.\textsuperscript{335} States are now subject to principles of equity and reasonableness rather than principles of absolute territorial integrity.\textsuperscript{336}

These principles of equity and reasonableness also apply in the area of shared resources. Article IV of the Helsinki Rules states that "[e]ach basin state is entitled within its territory to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin."\textsuperscript{337} The states in an international watercourse system are expected to develop, use, and share the resource in a reasonable and equitable manner.\textsuperscript{338} They must act in good faith and with due regard for their neighbors to achieve the goal of optimum utilization consistent with adequate protection and control of the watercourse system.\textsuperscript{339}

\textsuperscript{331} Id. at 566.


\textsuperscript{333} See generally B.H. Weston, R.A. Falk & A.A. D'Amato, INTERNATIONAL LAW & WORLD ORDER: AN INTRODUCTORY PROBLEM-ORIENTED COURSE BOOK 970-79 (1980). The Helsinki Rules explicitly reject the "Harmon Doctrine" which states that a country has complete control over its own territory. Id. at 971 (comment to article IV). See also Williams, supra note 26, at 166-69. The doctrine was formulated at the turn of the century and has not been followed on an international level. Id.

\textsuperscript{334} See generally Caponera, supra note 329, at 565-72.

\textsuperscript{335} Id.

\textsuperscript{336} Id. at 568.

\textsuperscript{337} Helsinki Rules, supra note 332, at art. IV (emphasis added).


\textsuperscript{339} Id.
What constitutes reasonable and equitable will be determined on a case-by-case basis. The Helsinki Rules, present a list of factors that are useful in determining whether water utilization is unreasonable or inequitable. The following 11 factors provided in the Rules are not exhaustive:

(a) the geography of the basin, including in particular the extent of the drainage area in the territory of each basin State;
(b) the hydrology of the basin, including in particular the contribution of water by each basin State;
(c) the climate affecting the basin;
(d) the past utilization of the waters of the basin, including in particular existing utilization;
(e) the economic and social needs of each basin State;
(f) the population dependent on the waters of the basin in each basin State;
(g) the comparative costs of alternative means of satisfying the economic and social needs of each basin State;
(h) the availability of other resources;
(i) the avoidance of unnecessary waste in the utilization of waters of the basin;
(j) the practicability of compensation to one or more of the co-basin States as a means of adjusting conflicts among uses; and
(k) the degree to which the needs of a basin State may be satisfied, without causing substantial injury to a co-basin State.

In addition to the factors provided by the Helsinki Rules, a 1983 International Law Commission Report focused on the use, conservation, and development of natural resources. Neither of these sources can be considered a mandatory rule of international law because each instance is shaped according to the will of the parties involved. In disputes arising over international waters, states are encouraged to arrive at an under-

340. Id. at 72. Some members of the ILC favored a range of policy factors rather than rigid rules to give guidance to what constituted reasonable and equitable use. See also Caponera, supra note 329, at 567–68.
341. Helsinki Rules, supra note 332, at art. V.
342. Id.
344. Id. at 71. See Caponera, supra note 329, at 568.
standing through consultation, negotiation, and agreement. Current international practice and recent trends suggest that states have an obligation to form and negotiate new developments. This is not as simple as it sounds. Decisions regarding new developments are rarely done by a joint commission or committee, and all too often, relevant decisions are negotiated and approved in a piecemeal way.

A related duty is that of cooperation in protection from pollution sources. Individual states should enact legislation to regulate and control water pollution, and to develop and improve methods to recycle and purify water.

States are also obliged not to damage another's natural resources or environment through any act or failure to act. The Helsinki Rules provide that states must prevent any new form of water pollution or any increase in the degree of existing water pollution in an international drainage basin that would cause substantial injury in a co-basin state's territory. A duty to notify and negotiate also stems from the Helsinki Rules. This practice of notification and negotiation has become what many states consider an obligation, and, according to one commentator, has clearly been established as a rule of customary international law. Negotiation is achieved without resorting to arbitration or judicial settlement, through various forms of mediation, conciliation, or fact-finding procedures.

Customs in international law, and the general principles embodied in the customs, mandate that where the Boundary Waters Treaty is silent, Canada and the United States are subject to a standard of equity and reasonableness when utilizing
Great Lakes water. Neither nation has an unqualified right to the use or disposal, i.e. diversion, of the water. Both nations are bound by custom to inform the other of any new developments, including problems of pollution and its sources in the Great Lakes area. Although the duty to notify and negotiate is important, the two countries are obligated to take preventive measures before any diversion or pollution of the Lakes occurs.

These duties and obligations are based on the Helsinki Rules, which are significant in the governing of international waters, but are nonetheless non-binding. This fact, as well as the previously detailed limitations presented by the Boundary Waters Treaty and the IJC, present the possibility of abuse by either nation.

The relevant sources and principles of international law limit the United States and Canada in allowing for diversions out of the Great Lakes. However, enforcement of the Boundary Waters Treaty and the international customary law discussed here can only be achieved through cooperation. Both countries need to work together to protect their vital resource. Where international law is not applicable or not binding on either country, the common interest in protecting this resource and the region’s economy must prevail.

V. REGIONAL COOPERATION: THE INTERSTATE COMPACT CLAUSE

A. The Compact Clause

A cooperative effort among the Great Lakes states to control diversions would not only fulfill this country’s international law obligations but is also specifically authorized by section 1962d-20 of the Water Resources Development Act. While the Water Resources Development Act frees the states from commerce clause constraints, there is yet another constitutional consider-

355. See generally Caponera, supra note 329, at 566-68.
356. Id. at 568.
357. Id. at 569-70. Caponera suggests that a duty of cooperation is implied in "the concept of community of interests" in current international law.
358. Id. at 570-71.
359. Williams, supra note 26, at 165.
360. See generally Caponera, supra note 329, at 572-87. The author discusses various mechanisms adopted by states to regulate the utilization of shared water resources.
ation raised by the prospect of cooperative multi-state management of Great Lakes water diversions.

Article I, section 10, clause 3 of the United States Constitution provides that: "No State shall, without the Consent of Congress, . . . enter into any Agreement or Compact with another State. . . ." While not all agreements among two or more states amount to a compact requiring Congress' consent, a comprehensive agreement among the Great Lakes states regarding the lakes' management is likely to require such consent.

Interstate compacts are formal and contractual agreements between states. They are similar in content, form, and wording to international treaties. Compacts are usually first enacted into law by the legislature of each of the participating states. Interstate compacts were formed long before the United States Constitution was even adopted. Compacts originated in colonial times where they often served as tools for resolving boundary disputes between states. These colonial compacts became effective upon Crown approval. Similarly, the Constitution requires Congressional approval of any interstate compact. The historical analogy to requirement of Crown approval is reinforced by the concepts of federalism.

Consent of Congress is not a rigid requirement. Consent is not necessary for agreements between states relating to matters in which the United States could have no possible interest or concern, or which do not interfere with the supremacy of

361. U.S. CONST. art. I, § 10, cl. 3 (Compact Clause).
362. Cf. Virginia v. Tennessee, 148 U.S. 503, 519 (1893). The Supreme Court said that the clause "is directed to the formation of any combination tending to the increase of political power in the States, which may encroach upon or interfere with the just supremacy of the United States." Id.
364. Id.
365. Id.
367. See Frankfurter & Landis, supra note 363, at 692.
368. Id. at 692 n.29. Negotiation was carried on by joint commission, but even after an agreement was reached, approval of the Crown was required. If an agreement could not be reached, an appeal was made to the Crown to have the Royal Commission resolve the dispute. Id.
the United States by increasing the states’ political power. Disputes concerning compacts are resolved in the United States Supreme Court. Because they are approved by Congress, compacts take precedence over state law.

When Congress approves an interstate compact, it is essentially approving a readjustment of the normal political balance between the state and federal governments. Congressional approval acts as a waiver to some degree of federal supremacy in the relationship between the two governments. Congressional approval usually results when each government lacks authority to independently address the entire problem. However, the interstate compact, as a remedy to the lack of authority, raises questions of constitutionality.

Challenges to interstate compacts are usually based on the contention that the compact exceeds federalism limits. And, when Congress expressly gives its approval to such state control, the question becomes one of intent. The compact clause allows Congress to authorize otherwise impermissible state action. Therefore, the answers to questions of compact validity should turn on the clarity of Congressional intent and statutory language, not on constitutional interpretations.

Seattle Master Builders Ass’n v. Pacific Northwest Elec. Power & Conservation Planning Council was a case in which an interstate compact confronted these constitutional issues. Master Builders, joined by six other homebuilders groups, challenged the policy-making authority of the Council, whose members were appointed by the governors of the party states. They alleged that such authority violated the appointments clause and the principles of federalism. Before each of these argu-

370. Id.
372. See id.
374. Id. at 796.
375. Id. at 795.
376. Id. at 786–87.
377. Id. at 805.
378. Id.
380. Id. at 1364–65.
381. Id. U.S. CONST. art. II, § 2, cl. 2. The appointments clause provides: [The President] shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls,
ments is addressed, some background on the case may be helpful.

The need to coordinate and balance interdependent use of water in the Columbia River Basin spurred several legislative proposals for comprehensive federal authority in the 1940's and 1950's. All of these proposals failed because of local concerns about federal intrusion into state water rights administration and the dangerous possibility that a federal agency would become an autocratic federal super-agency.

However, when the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act) was enacted in 1980 and the Northwest Power Planning Council (the Council) was formed, the Council had a much different look than any of the previously considered agencies. The Council was an interstate compact agency made up of representatives of each state which was a party to the compact. Its role was to guide and constrain the federal agencies in the region that were involved in the management of the Columbia River as a resource. The Council also planned strategies and provided incentives for cooperation among the compacting states.

In addition to the establishment of the Council, the Northwest Power Act accomplished two primary objectives. It reallocated the low cost hydroelectricity generated by federally owned dams on the Columbia River and it increased the authority of the administrator of the Bonneville Power Adminis-
tration (BPA) to acquire electricity. The Administrator’s discretion was limited by the requirement that any action must be consistent with plans developed by the Council.

Congress, knowing the potential challenges this powerful Council might face, was careful not to violate the Constitution. Congress consented in advance to the compact and the Council it established, thereby waiving federal supremacy.

Master Builders argued that the interstate compact had created a Council which violated the principles of federalism. The Court, however, noted that Congress did not intend the Council to be a federal agency nor to be controlled by the federal government. Simply because Congress approved of the Council before the states agreed to form it, and the Council’s activities directly affected a federal agency, did not make the Council invalid.

Under the appointments clause, Master Builders argued that despite what Congress said in the Northwest Power Act, it had, in actuality, created another federal agency in the Council, especially since the Council exercised significant authority pursuant to federal law. This argument was based on the Court’s decision in Buckley v. Valeo, which held that “any appointee exercising significant authority pursuant to the laws of the United States is an ‘Officer of the United States,’ and must, therefore, be appointed in the manner prescribed” by the appointments clause of the Constitution. Master Builders

389. Goble, supra note 373, at 792–94.
390. Id. at 793.
391. Id. at 793–94.
393. Id. at 1363.
394. See id. at 1363 (citing Northeast Bancorp, Inc. v. Board of Governors of the Federal Reserve System, 472 U.S. 159 (1985)). There are a number of characteristics that consistently show up in interstate compacts. They include: conditional consent by member states, state enactments requiring reciprocal action for their effectiveness, and establishment of a joint organization for regulatory purposes.
397. Id. at 126.
398. “The appointments clause applies to (1) all executive or administrative officers, (2) who serve pursuant to federal law, and (3) who exercise significant authority over federal government actions. Unless all three prongs of this test are met,
petitioned the court to apply the *Buckley* test, requiring that the President, not the state governors appoint the members.\footnote{399. Id. See also Sherrett, Seattle Master Builders Association v. Pacific Northwest Electric Power and Conservation Planning Council: The Constitutionality of the Northwest Experiment in "Cooperative Federalism," 17 ENVTL. L. 971, 996 (1987). The Pacific League Foundation, in an amicus brief, argued that the Framers of the Constitution intended the appointments power to be inclusive, and that Congress did not have the power to vest the appointment power in any party not specifically enumerated in the clause. Id.}

The Ninth Circuit was not convinced by these arguments. The court held that the Council cleared the second element of the *Buckley* test.\footnote{400. Seattle Master Builders Ass'n v. Pacific N.W. Electric Power and Conservation Planning Council, 786 F.2d 1359, 1365 (9th Cir. 1986), cert. denied, 479 U.S. 1059 (1987).} “The Council members do not perform their duties ‘pursuant to the laws of the United States’ . . . Rather, the Council members perform their duties pursuant to a compact which requires both state legislation and congressional approval.”\footnote{401. Id. (citations omitted).} The court reasoned that:

> [without substantive state legislation, there would be no Council and no Council members to appoint . . . [and although] congressional consent gives an interstate compact some attributes of federal law, the Council member’s appointment, salaries and administrative operations are pursuant to the laws of the four individual states, within parameters set by the Act.\footnote{402. Id. (citations omitted).} The court found it unnecessary to reach the first or third prong of the *Buckley* test.\footnote{403. Id.}

The court in *Master Builders* recognized and encouraged the creative possibilities of cooperative state action in a federal system. However, in order to avoid the appointments clause challenge, it overstated the significance of the state law.\footnote{404. State law does little more than authorize the appointments and participation of the Council members. See Sherrett, supra note 399, at 996.} The opinion provided a clear answer to the appointments clause challenge—the clause has no bearing on an interstate compact’s real impact is in the fact that it is federal law.

This federal law may, however, include some unique twists. Congress may impose conditions on its consent, such as, reser-
vation of jurisdiction in federal courts.\footnote{405} The federal government may also consent to compacts by going so far as proposing the terms of the agreement or even by becoming a party to it.\footnote{406} Although these stipulations are rare, it is not uncommon for a federal representative to be appointed by Congress to sit as a non-voting member of the interstate compact agency.\footnote{407}

The compact clause is used by the states to create regional regulation and to adopt law specific to particular regional problems.\footnote{408} Approval by Congress formalizes the compact\footnote{409} and ensures that the proper standard of review—clear congressional mandate and specific legislation which makes the authorization of state control clear and unambiguous\footnote{410}—is uniformly applied and interpreted. Congress may exercise this power by passing a law,\footnote{411} by joint resolution of both houses,\footnote{412} or by giving its assent in advance of the states' agreement.\footnote{413}

The passage of the Water Resources Development Act (Development Act) of 1986\footnote{414} gave each of the Great Lakes states a veto over any proposed new diversion from anywhere on the United States side of the Great Lakes system.\footnote{415} For example, a proposed diversion from Lake Ontario in New York, approved by New York, could be prevented by Minnesota, and a proposed diversion from Lake Superior, approved by Minne-
sota, could be prevented by New York. It is clear that any one state could veto a proposed diversion.

It is not clear however, how this multi-state approval process is to work. The Development Act did not provide any procedure for notification by any of the states to the others of proposed diversions within their boundaries, nor did it indicate how the other states were to decide whether to approve such proposals. The law also failed to specify a time limit for state approvals or disapprovals of diversion proposals.416

This absence of even basic procedures in the law is not particularly surprising in view of the fact that the concern of the Great Lakes states at the time of the Development Act's passage was to prevent any water diversions from the Great Lakes.417 It is fair to say that the prevailing view in the region is that diversions are a bad idea and that any new diversions should be prevented.418 Time may prove that to be a simplistic and unwise view. The natural lakes system has already been altered with diversions both into and out of the system.419 A better understanding of the effects of diversion on the ecology of the lakes and on their shorelines may demonstrate that some diversions make sense. While it seems unlikely that any diversion proposal would be looked upon with favor by any of the Great Lakes states, and while it seems wise to learn much more than is now known about the effects of diversion before approving any such proposals, the time may come when a particular proposal does indeed make sense to the state in which a diversion is proposed. In those circumstances, that state would have to seek the approval of the other seven Great Lakes states.420

In such an event, the potential for dispute among the states over a particular diversion proposal is evident. The prospect of such disputes raises, in turn, the possibility that the Great Lakes states might back away from a uniform regional stance regarding primary management of the lakes by the states. The progress toward a regional perspective manifested in the Great Lakes Charter (the Charter),421 in managing what is so obvi-

416. Id.
417. Metzenbaum Statement, supra note 289.
418. Id.
419. See Bixby, supra note 1, at 15.
421. The Great Lakes Charter, supra note 56.
ously a regional resource is a valuable political asset that needs to be maintained and nurtured. An out-of-basin diversion is only one lake's management issue calling for a regional perspective. Consumptive uses within the basin can obviously have the same effects as out-of-basin diversions and, indeed, seem a more likely and immediate matter of concern.

All of these concerns argue for some form of multi-state co-operative management of the Great Lakes that goes well beyond a simple veto power given to each of the states regarding out-of-basin diversions. Existing interstate water compacts can serve as models for a comprehensive multi-state agreement for management of the Great Lakes.422

1. Existing Interstate Water Compacts

When Congress passed the Water Resources Development Act of 1986, did Congress intend it to be an exercise of its compact clause power in advance?423 An examination of several interstate water compacts may provide the answer to this question and consequently, may prompt the Great Lakes states to form an interstate water compact.

Although preceded by the New York Port Authority,424 the most comprehensive interstate water compact today is the Delaware River Basin Compact.425 Pennsylvania, New York, New Jersey, Delaware, and the federal government426 are parties to the Delaware River Basin Compact. The compact is unique in that it encompasses the entire development and management of the Delaware River Basin. The compact's commission regulates water allocation and use in the basin, makes provisions for and takes preventive measures for flood control, develops recreational uses of the river, develops the river for hydroelectric purposes, and sets and enforces water pollution stan-

422. See generally Caponera, supra note 329, at 572-87. The author details a number of international models including Mar del Plata Action Plan. Id. at 573-74.


424. Port of New York Authority, ch. 77, 42 Stat. 174 (1921) (established by a compact between New York and New Jersey, and today, the most powerful interstate compact agency).


426. Id. The fact that the federal government is a party to this compact is a unique characteristic that most compacts do not possess. In this compact, the representative of the federal government has full voting rights. Id. at 691.
The comprehensive plan, which the commission is required to develop, adopt, review, and revise, calls for the planning of immediate and long range development and use of water resources of the basin to meet present and future needs.

The Colorado River Compact does not establish an administrative agency or commission to resolve disputes or administer provisions of the compact. Instead, the compact calls for interstate and federal cooperation. Under the compact's terms, each state is entitled to use its apportioned amount of water in any way it finds appropriate without having to answer to a superior administrative agency. Despite the absence of an agency or commission, the compact does provide for the "calling-together" of representatives for the purpose of: (1) altering the structure of the compact; (2) cooperating with federal officials in conducting studies; and (3) settling disputes between the compacting states.

The states have little policing power in that each representative state has a veto vote over dispute resolutions or compact alterations and each state legislature must give final approval. The role remaining with the individual state is primarily one of decision-making.

The Sabine River Compact between the states of Texas and Louisiana was approved by Congress in 1954. The compact's purpose is to equitably divide the Sabine River and to coordinate the conservation, development and utilization of the river water. The compact recognizes all existing water rights at the time of the compact, and the right to regulate the use of water from the Sabine River. The Sabine River Compact Administration (the Administration) administers the terms of the compact.

427. Id. at 688–89.
428. Id. at 692–95.
435. Id.
436. Id. at 694.
from each state plus a non-voting federal representative.\textsuperscript{437} Although the Sabine River Compact contains language similar to other compacts, such as the power to adopt, amend, and revoke by-laws for administrative purposes and the power to establish, collect, and correlate information about water supplies, the Administration still has only limited power. The Administration has the power to investigate, but must report violations to the appropriate state agency.\textsuperscript{438} Execution and enforcement of the Administration’s orders is left to the state officials in charge of water resources. Findings of fact by the Administration are considered prima facie evidence, but not conclusive in court.\textsuperscript{439} Thus, the Sabine River Compact is less comprehensive than the Delaware River River Compact.

A more recent interstate water compact is the Goose Lake Basin Compact,\textsuperscript{440} between the states of Oregon and California. The compact, designed to control the use and development of water from the Basin, was first negotiated by the states in 1963, but was not approved by Congress until 1984.\textsuperscript{441}

Under the Goose Lake Basin Compact all vested water rights in existence at the time of the compact are still valid.\textsuperscript{442} The export of water from the Basin for use outside the Basin without prior consent of both state legislatures is prohibited.\textsuperscript{443} And a commission or agency is not necessary to administer the terms of the compact.\textsuperscript{444}

The Great Lakes Charter could be the basis for a comprehensive interstate management agreement for the Great Lakes similar to those created by the Delaware River Basin Compact,\textsuperscript{445} the Colorado River Compact,\textsuperscript{446} the Sabine River Compact,\textsuperscript{447} and the Goose Lake Basin Compact.\textsuperscript{448} Although

\textsuperscript{437} Id.
\textsuperscript{438} Id. at § g(7).
\textsuperscript{439} Id. at § i.
\textsuperscript{441} Id.
\textsuperscript{442} Id. at art. III.
\textsuperscript{443} Id.
\textsuperscript{444} Id. at art. IV.
\textsuperscript{447} Sabine River Compact, ch. 668, 68 Stat. 690 (1954).
many of the functional details are not included in the Great Lakes Charter, such details could easily be resolved.

2. The Great Lakes: A Proposal for an Interstate Compact

The Great Lakes Charter (the Charter) contains provisions similar to those in interstate compacts. The Charter, like the Colorado River Compact and the Goose Lake Basin Compact, does not provide for an agency to administer its terms. The Charter provides each state with veto power, similar to that of the Colorado River Compact, in that no new or increased diversion or consumptive use of water resources are allowed without notification and consultation of all affected Great Lakes states and Canadian provinces.

The Charter provides for the creation of a Water Resources Management Committee, with responsibilities similar to the Sabine River Compact Administration. The Committee is instructed by the Charter to identify specific common water needs, establish a system to exchange data and information gathered in the common database, and develop procedures for the prior notice and consultation process established by the Charter. The Great Lakes Charter also resembles the Goose Lake Basin Compact in that both contain language that could be interpreted as prohibiting the export of water from the region without prior consent of parties named in the document.

A 1985 report explains how the Charter should be implemented. Although the Charter is viewed by many to be little more than a good faith agreement, the Task Force report indicates that the Charter could be interpreted to be much like


450. Id. Implementation of Principles, Common Base of Data. The Great Lakes Charter instructs the states and provinces to pursue the development and maintenance of a common base of data and information regarding the use and management of water resources, and the systematic arrangement for the exchange of water data and information.

451. Id.


453. Final Report, supra note 70.

454. See also MacAvoy, supra note 59.
an interstate compact.\textsuperscript{455}

The Great Lakes Charter differs from the other compacts in that it deals almost exclusively with the management of potential diversions, while the others deal with many other aspects of resource management.\textsuperscript{456} Nevertheless, the Charter can be a starting point for interstate management of the Great Lakes resource. The narrow scope of the Charter is in direct correspondence with the narrow scope of section 1962d-20, which only addresses the prohibition of diversions.

The eight Great Lakes states should negotiate an agreement that would detail the exercise of the veto power given them jointly by section 1962d-20. Although a basis for development of such an agreement, the Great Lakes Charter's requirement of prior notice and consultation is not specific enough to be considered a reliable process. More is needed in the way of specifics that would outline how the states' governors, to whom the veto power in section 1962d-20 was given, are to be represented in a process for jointly deciding whether to approve a proposed diversion, how the decision-making process should be structured, and how decisions should be enforced.

The agreement would require no further Congressional action. The agreement would not present a threat to federal supremacy since Congress gave the states' governors veto power in section 1962d-20 of the Water Resources Development Act. Congress' approval of that Act under the compact clause has the effect of federal law, and multi-state agreements made pursuant to the Act has an equal effect. In addition, such an agreement does not violate the interstate commerce clause. Congress, having the power to regulate commerce by taking affirmative action, granted these states through section 1962d-20, the right to regulate interstate commerce in water. Thus the states' agreement is protected from judicial commerce clause analysis.

\textsuperscript{455} Final Report, supra note 70. The report commands that the signatory members follow a specific sequence in implementing the Charter.

\textsuperscript{456} For example, the Arkansas River Basin Compact, Pub. L. No. 93-152, 87 Stat. 569 (1973), encourages pollution abatement programs. The Belle Fourche River Compact, ch. 64, 58 Stat. 94 (1944), places particular emphasis on administering public water supplies in South Dakota and Wyoming. The Snake River Compact, ch. 73, 64 Stat. 29 (1950), apportions the waters of the Snake River and gives direction to officials in the signatory states of Idaho and Wyoming to distribute public water supplies and to collect necessary data.
CONCLUSION

The prospect of new diversions of water out of the Great Lakes basin is a cause for substantial concern in the Great Lakes region. Proposals for large scale diversions pose the prospect of significant ecological and economic harm. Each of the eight Great Lakes states’ ability to control diversions is substantially limited by federal law. The most significant limitation is presented by the commerce clause of the federal Constitution. A body of law has developed around state laws which interfere with the free flow of commerce, including water, among the states.

Analysis of that body of law indicates that, while states have some power to control interstate diversions of water, that power is greatly limited. In the case of Great Lakes water diversions, however, Congress has specifically empowered the Great Lakes states to protect against such diversions by giving each of these states a veto power over any diversion of water out of the Great Lakes basin.

Certain international law concepts, including the Boundary Waters Treaty between the United States and Canada, also limit the United States’ authority to divert Great Lakes water. However, these international law concepts and obligations are not sufficiently well defined to offer extensive protection against Great Lakes water diversions.

The Great Lakes Charter, a non-binding agreement among the Great Lakes states and provinces, provides the model for the regional cooperation needed to assure protection of the Great Lakes against harmful water diversions. The Charter’s statement of principles and integrated management strategies, combined with the Great Lakes states’ veto power over unwanted water diversions, provides the basis for effective regional control of Great Lakes water diversions. Nevertheless, the Great Lakes states need to develop the principles for decision-making, and to refine the process for regional decision-making on these important management issues.

Such an agreement implicates yet another constitutional provision, the interstate compact clause. Not all agreements among two or more states are a compact requiring the consent of Congress, but a comprehensive multistate agreement on management of Great Lakes water diversions is likely to require such approval. Congress has already recognized the spe-
cial interests of the Great Lakes states in Great Lakes waters by authorizing state control over out-of-basin diversion of those waters. The Great Lakes states must now develop a more comprehensive agreement on Great Lakes management in order to protect this unique and priceless resource, the Great Lakes.