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A RECOMMENDED LEGAL AND POLITICAL STRATEGY

TO CONSERVE AND MANAGE THE WATERS OF THE GREAT LAKES

By

Dave Dempsey

A THESIS

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ABSTRACT

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TO CONSERVE AND MANAGE THE WATERS OF THE GREAT LAKES

By

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The Great Lakes ecosystem faces significant threats from new or increased water withdrawals and water exports outside the Great Lakes Basin. These impending demands on the Lakes may damage critical habitat, disrupt ecosystem health, and pose public health and economic risks. Conserving waters in-Basin is important to the people and governments of the Great Lakes Basin states, but doing so requires innovative legal and political strategies that take into account the U.S. Constitution as well as ecological sciences and public attitudes. A literature review and interviews with legal scholars reveals the applicability of the public trust doctrine, an ancient common law concept, to the defense of Great Lakes water levels, particularly in the face of great uncertainty about the workings of the immense, complex and valuable Great Lakes ecosystem. This doctrine should play a central role in the near-term in efforts by the Great Lakes states to conserve the waters of the Great Lakes Basin.

TABLE OF CONTENTS

Introduction

The conservation of the waters of the Great Lakes presents both legal and social challenges of immense proportions to the State of Michigan and, by extension, the Governor and Legislature. Observed first by Europeans from the vantage point of the Great Lakes and settled because of the water transport the lakes provided to immigrants in the 1800s, Michigan has always been and will likely always be linked to the future of the Lakes that surround them.

But the history of the state's relationship with the lakes holds several cautionary lessons. First, their sheer scale has misled both officials and the public they represent to believe their waters are virtually inexhaustible and capable of adjusting to any demands placed upon them by civilization. The national environmental crisis of the 1960s was headlined by the "death" of Lake Erie, just the most dramatic example that the lakes are finite and fragile. Now viewed by some as a reservoir available for tapping to meet water needs in both the Great Lakes region and areas far removed, the lakes may again prove less capacious and more vulnerable than commonly thought.

Second, simple geography isolates Michigan's interests in conserving the lakes from the interests of the other seven Great Lakes states. The sole state lying almost entirely in the Great Lakes Basin, Michigan alone has political reason to seek a strict limitation on use of Basin waters within that hydrological boundary. As the *Detroit Free Press* pointed out in discussing the serious Great Lakes pollution problems of the 1960s and early 1970s, "Michigan stands to lose more than any other state if current efforts to control pollution of the Great Lakes do not succeed and if new efforts are not begun soon.

Four of the world's 12 largest lakes lap the shores of Michigan's two peninsulas. No Michigan resident lives more than 80 miles from at least one of the lakes."[1]

Third, the public sentiment mobilized in Michigan by the pollution problems of the 1960s and by talk of water diversions to the Sunbelt in the early 1980s has stimulated public officials to speak boldly of banning or prohibiting out-of-Basin water transfers despite a tenuous legal basis for such policies. Michigan, in fact, has legislated a ban on diversions that continues in effect to the present day.[2] As the review of constitutional law in this thesis will illustrate, there is a near-consensus among Great Lakes officials and constituent groups that permanent embargoes on Great Lakes water transfers are doomed to fail in the courts. Given this fact, the questions facing the Michigan public and the officials who govern the state are:

- Are there gaps in the consensus legal analysis, or unexplored legal defenses, that may assist Michigan in retarding or blocking water transfers out of the Basin?
- What steps can Michigan take – if necessary, independent of its surrounding states – to put itself in the best possible legal and political position to resist or stop water transfers?
- How can Michigan public officials best lead and mobilize Michigan citizens to assist in erecting such a defense?

It is the contention of this thesis that there are, in fact, unexplored legal opportunities for Michigan to delay substantially, if not ultimately prevent, major water

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[1] "Michigan Holds Biggest Stakes in Clean Lakes," *Detroit Free Press*, March 8, 1970.

[2] Michigan Compiled Laws Annotated, § 324.32703 (1995). "...[T]he waters of the Great Lakes within the boundaries of this state shall not be diverted out of the drainage basin of the Great Lakes."

transfers from the Great Lakes system in the interest of protecting the Great Lakes ecosystem. In particular, an expansive interpretation and use of the public trust doctrine and the implied precautionary principle it expresses can strengthen the state's legal position.

It is also the contention of this thesis that Michigan law and practice leaves the state highly vulnerable to the risk of major water transfers. Enjoying seemingly limitless water resources, the state has done little to demonstrate a conservation ethic and the even-handed legitimacy of its use of the police power to regulate or thwart water transfers. Without aggressive action, including the passage of new statutes regulating Michigan water users and significant changes in the water use practices of industries, municipalities, and individuals, the ability of the state to resist out-of-Basin water transfers will be undermined.

The following master's thesis explores these issues in the following sequence:

In Chapter 1, I discuss the physical character of the Great Lakes, their singular hydrology, and the gaps in scientific understanding of their processes and functioning.

In Chapter 2, I explore the history of Great Lakes water diversion and consumptive uses and related litigation and regulation.

In Chapter 3, I review the literature related to the public trust doctrine and make the case that it can play a major role in Michigan's efforts to conserve the waters of the Great Lakes.

In Chapter 4, I trace the development, since 1998, of regional and federal (U.S.) proposals to build defenses against water transfers and harmful consumptive uses in the Great Lakes Basin.

In Chapter 5, I weigh the respective roles of the federal and state governments in conserving and managing the resources of the Great Lakes, and the implications for state action to conserve their waters in the future.

In Chapter 6, I summarize the issues explored in the first five parts, and offer a legal and political strategy Michigan officials should follow in conserving the waters of the Great Lakes.

Appended to this thesis is a "draft memorandum" to the Governor of Michigan, written from the viewpoint of an environmental advisor to the Governor who has been asked to canvass both legal experts and political figures in an effort to recommend the strategy that best reflects the wisdom of both while advancing the Governor's interests.

I include this appendix for several reasons. First, I am familiar with the format, having written similar memoranda while serving as the environmental advisor to Governor James J. Blanchard from 1983 to 1989. Second, I believe the format best unites the complicated legal and academic issues associated with conservation of Great Lakes waters with the pragmatic political considerations that elected officials must take into account. That is to say, I believe a thesis that simply attempts to analyze legal precedents and doctrines relevant to Great Lakes water transfers, exports and withdrawals without considering pragmatic political realities will make little contribution to an understanding of how these matters will ultimately be resolved.

Legal constraints are just one of the elements a Governor or other high elected official must face in addressing environmental issues of great public consequence. It is a truism that a leader cannot lead if the people will not follow. While elected officials have a responsibility to respect legal constraints and must strive to foster public understanding

of those constraints, they must also often bow to the expressed preferences of their constituents, particularly when an overwhelming majority of them express a preference. Voting age residents of Michigan have indicated in polls, by majorities approaching 90 percent, that they oppose any relenting from the state's historic position of opposing all new or increased water diversions and water exports. The strength of such views is as impressive as the vast number of citizens who subscribe to them. Surrounded by four of the five Great Lakes, Michigan perhaps identifies with their protection more than any other state. Its unique position as the only state lying almost entirely within the Great Lakes Basin strengthens the resolve of its people to take an independent stand on their management.

The memorandum specifically addresses the situation in which the State of Michigan finds itself in the year 2001 as it considers this area of policy. Shaping the policy environment is the recent (1998) controversy over a failed proposal by an Ontario company to withdraw and export up to 50 tankers of Lake Superior water per year for sale to Asian customers. Coming at the end of a decade of near-dormancy of debate on Great Lakes water conservation, the controversy has galvanized a study by the International Joint Commission, has renewed interest in federal and state legislation to limit water transfers and exports, and has alarmed the general public.

My emphasis in the thesis and appendix on the public trust doctrine is an attempt to build upon the expanded application of the doctrine to environmental disputes during the last four decades. Although increasingly cited by some legal scholars and environmental advocates as a basis for strong public policies protecting natural resources common to human heritage, such as bottomlands, shorelines, and wild lands in public

ownership, the application of the public trust doctrine *to the waters and the ecosystem of the Great Lakes themselves* – at least as a basis for a moratorium on further water diversions and exports and consumptive uses until the resource can be more adequately studied and appropriate policies put in place – has not generated significant academic study, let alone served as the basis for government actions. It is my hope in this thesis to develop the case that the public trust doctrine is an appropriate foundation for state policies and actions that would not only pass legal muster but also enjoy widespread public support. The use of the public trust doctrine in this fashion, I contend, is not only legally and politically sound, but is also likely to result in the best management possible of this singular water resource. It is a rare confluence of legal, political and scientific imperatives and opportunities.

It must also be acknowledged that the public trust doctrine is best deployed in an interim strategy under which Michigan, and to some extent its Great Lakes neighbors, strengthen the armor of the region against large-scale water exports and diversions. Used to support a moratorium rather than a permanent embargo, the public trust doctrine in effect embodies the "precautionary principle." That is, it provides Michigan a basis for halting water exports and diversions while a good-faith effort is made to understand the complex Great Lakes ecosystem and the possible (even likely) adverse impacts of water withdrawals that are significant either individually or cumulatively.

It cannot be stressed often enough that Michigan must walk a narrow line between collective action with other Great Lakes states and pursuit of its independent interests. The state's hand is strengthened in Washington, D.C., by an alliance with the other seven states with Great Lakes shoreline. At the same time, Michigan's interests may ultimately

diverge from those of its water neighbors, as population pressures stimulate demands for out-of-Basin diversions within the state boundaries of Wisconsin or Ohio, for instance. In the end, Michigan may fare best by simultaneously pursuing regional alliances and reserving the right to act autonomously in defense of the Lakes.

In the long run, as I observe in the thesis, Michigan will be best served by putting in place statutes and programs that conform to long-established legal precedents with respect to the interstate commerce clause and other national and international issues. But marshaling public support for such statutes will require a strong education campaign. Since the greatest demand for Great Lakes water withdrawals and exports is likely to occur after 2010, the state has a decade and perhaps more to build public understanding. Particularly in a state where the Governor and legislators are now limited to a tenure of no greater than 8 years, a long-term commitment to the education campaign, scientific research and legislative enactments that comprise the recommend strategy will require enlightened, if not visionary leadership. Fortunately, in implementing the strategy outlined in this thesis, even term-limited politicians may reap substantial benefits for taking the initial steps. This is perhaps the best hope the state has for protecting the Great Lakes during a century that is likely to challenge them in ways unknown in the past.

Chapter 1

The Physical Character of the Great Lakes Ecosystem

"The waters of the Great Lakes have been a fundamental factor in placing the region among the world's leading locations in which to live and do business. Water contributes to the health and well being of all Basin residents, from its use in the home to uses in manufacturing and industrial activity, in shipping and navigation, in tourism and recreation, in energy production, and in agriculture. The Great Lakes, however, are more than just a resource to be consumed; they are also home to a great diversity of plants, animals, and other biota."

-- "Protection of the Waters of the Great Lakes," the International Joint Commission, February 22, 2000

What Is Known About the Great Lakes?

The most obvious fact about the Great Lakes is their size. Taken in total, including its tributaries, groundwater sources, connecting channels, open lakes, and the St. Lawrence River to Trois Rivieres, Quebec, the Great Lakes Basin covers almost 300,000 square miles. The Great Lakes themselves contain over 65 quadrillion gallons of water, about 18% of the world's surface fresh water, and have 11,000 miles of shoreline. This water resource is of global significance. As Thomas Baldini, the U.S. Section Chair of the International Joint Commission (IJC) from 1994-2001 has observed[3], if all the water in the world were likened to that found in a one gallon container, one tablespoon of the gallon would comprise the world's freshwater. About one-fifth of that tablespoon would comprise the waters of the Great Lakes ecosystem.

The resource has played a crucial role in the economic as well as the environmental history and development of the region. Native Americans used the Lakes as transportation routes and for trade, as did the early European fur traders. In the 1800s, the Lakes became a major pathway for immigrants seeking to find homes in the region. Late in the century and throughout the 20th Century, the Lakes supplied fresh water for industrial and municipal use, a convenient corridor for high-volume shipping, and the basis for a significant commercial fishery.

Despite the apparent vastness of the Lakes, they are far more vulnerable to change than once thought. The pollution of the Lakes that peaked in the 1950s and 1960s was tolerated, in part, because it was believed that assimilative capacity of these waters was virtually unlimited. When massive blooms of algae resulted from over-enrichment of the Lakes by phosphorus, and when chemical contaminants spurred public health warnings about fish consumption from all five of the Great Lakes, officials and the public alike recognized that the ecosystem did not have unlimited tolerance for human alteration.

"Our waterways, precious resource that they are in Michigan, are in trouble. Human folly has got them there. The supply of fresh water, we thought, was inexhaustible...But too many people have piled into areas where drainage and sewage disposal are a difficult enough problem to begin with. Too many industries have dumped their waste into sewage systems or raw into the streams. Now this generation of Michigan's people finds itself forced to decide whether it is willing to try to save the streams and lakes."[4]

The IJC estimates that less than one percent of the waters of the Great Lakes is renewed annually by precipitation, surface water runoff, and groundwater flow. Calling the Great Lakes "for the most part, a nonrenewable resource," the Commission cautions that much of the volume of the Lakes is a remnant of glacial melting, some of that

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[3] Interview, December 15, 2000.
[4] *Detroit Free Press*, "Now We Can Redeem Our Neglected Streams," September 29, 1968.

volume supplied by aquifers that have filled over the centuries – in effect, a legacy of the glacial age and the 10,000 subsequent years before intense development began.

Another measure of fragility is the speed and size of the system's responses to change. "Studies of water level fluctuations have shown that the Great Lakes can respond relatively quickly to periods of above-average, below-average, or extreme precipitation, water supply, and temperature conditions," the IJC observes.[5] This suggests that relatively small changes in water inputs and evaporation can significantly alter lake levels.

It is important to note natural fluctuations in lake levels. During periods of persistent above-average temperatures and below-average precipitation, the lakes drop; during cooler-than-normal, wetter periods, they climb. In the 20th Century, high levels were noted in 1929-30, 1952, 1973-74, 1985-86, and 1997-98. Unusually low levels occurred in the mid-1920s, mid-1930s, and early 1960s. In 1998-99, the water levels of Lake Michigan-Huron dropped 22 inches in 12 months. Aquatic vegetation and other biota are highly adapted to these periodic natural changes.

Great Lakes Basin water is used for irrigation, public water supply, industrial processing, thermoelectric and nuclear facilities, livestock watering, and self-supplied domestic use, providing a vital underpinning for the region's economy. The Great Lakes Commission and the U.S. Geological Service have separately estimated daily uses of approximately 55 billion gallons across the Basin, serving a population of approximately 33 million Basin residents, 25 million of them in the U.S.[6] Approximately 95 percent of all water used within the Basin is returned to the Basin, meaning that only five percent is

[5] International Joint Commission, *Protection of the Waters of the Great Lakes: Final Report to the Governments of Canada and the United States, February 22, 2000,* 6 (2000).

consumed. The greatest share of consumptive water use derives from agricultural irrigation, largely due to evaporation. Over 70 percent of water used for irrigation is consumed, while less than one percent is consumed when water is used for thermoelectric power, according to the IJC.

It is worth underscoring that most uses of Great Lakes water that originate within the Basin *are not consumptive.* That is, the water withdrawn is largely returned to the Lakes. The Great Lakes Commission, U.S. Geological Survey and Environment Canada estimate the consumption rate from in-Basin uses at 4.4 to 4.6 percent.[7] An interesting question raised during the recent consideration of consumptive water use by the IJC was the effect of the region's new bottled water industry on consumptive uses. Although some commentators at IJC meetings speculated that large amounts of Basin water were being bottled and exported for sale outside the region, the IJC concluded, "...[T]he volume of water leaving the Great Lakes Basin is not significant (the amount of bottled water presently imported into the Basin exceeds the amount leaving by a factor of 14...There is nevertheless a need to monitor these activities and keep them under review."[8]

The significance of this issue has not been lost on Great Lakes policy makers. In authorizing the diversion at Akron, Ohio in 1998 under terms of both the federal Water Resources Development Act of 1986 and the Great Lakes Charter, Michigan Governor John Engler insisted that the municipality return to the Great Lakes watershed an amount of water equal to that consumed in the diversion. After assuring that the Ohio Basin water it would return would be free of exotic organisms or pollutants, the municipality won the region's approval.

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[6] *See id.* at 9.
[7] *See id.* at 9.

Michigan is cradled by four of the five Great Lakes, resulting in 3,288 miles of shoreline on the Lakes and connecting channels. The lakes and other surface water bodies supply drinking water to approximately 50 percent of the state's population; about half of the state's residents rely on groundwater for their drinking water. "All Michigan counties except for Wayne and Bay have communities supplied by municipal groundwater wells. Of the approximately 12,000 community and non-community water systems statewide, more than two-thirds draw from groundwater sources. While groundwater supplies many Michigan residents with their drinking water, it is perhaps Michigan's most overlooked water resource."[9]

Human activities, particularly dredging of connecting channels, have significantly altered the hydrology of the lakes. According to the IJC, dredging in the channels and canals to support deep-drafting shipping has permanently lowered Lake Michigan-Huron by 15.8 inches.

There are currently eight interbasin Great Lakes diversions and six intrabasin diversions. Three of the interbasin diversions contribute water to the Basin; one both removes and returns water; three remove water from the Basin. Two diversions in Ontario, Long Lac and Ogoki, supply an average of more than 5,500 cubic feet per second of water to the Basin.[10] The largest diversion of water out of the Basin is the Chicago diversion, which routes an average of 3,200 cubic feet per second into the Mississippi River Basin. If the Long Lac and Ogoki diversions were not in place, water

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[8] *See id.* at 44.

[9] Institute for Water Research, Michigan State University. [Online]. Michigan's Drinking Water. Available http://www.gem.msu.edu/gw/mi_water.html.

[10] The Long Lac and Ogoki diversions were undertaken during World War II to produce electricity.

levels would be as little as 2.4 inches lower in Lake Superior and as much as 4.3 inches lower in Lakes Michigan-Huron.

The Unknown Great Lakes

The above facts are dwarfed by what is *not* known about the Great Lakes system. Although they have been the object of European exploration and commercial exploitation for four centuries, and the object of intensive scientific inquiry for much of the past century, the Great Lakes remain an elusive resource. Despite growing public investments in research on the Great Lakes ecosystem, more remains to be known than is known about the nature of these waters and their complex interconnections with the flora and fauna that inhabit the Great Lakes Basin. Until many of these questions are answered, major water diversions, consumptive uses, or bulk exports that may have significant effects either individually or cumulatively will pose undetermined and potentially great risks. For example:

**** Little is known about the role of groundwater in the Great Lakes system.***

Analysis of stream flow hydrographs shows that groundwater contributes more than half of the stream discharge to the Great Lakes. Much of this contribution is indirect. That is, it flows into tributaries rather than the Great Lakes themselves. "Locally, however, direct ground-water discharge to the Great Lakes may be important, even though the overall rates and places of discharge are poorly understood," writes a hydrologist employed by the U.S. Geological Survey.[11]

The best current estimate is that approximately 53 percent of the water entering the Great Lakes system falls as rain and snow on land, becomes groundwater, reaches

[11] *Report Outlines Importance of Ground Water to the Great Lakes Region,* 15 The Aquifer: Journal of the Groundwater Foundation (2000).

tributaries, and is then discharged to the Lakes. Only 24 percent of new water is thought to be surface runoff. But the estimate is considered tentative at best.[12]

The implications of ignorance of groundwater volumes and flows are suggested by the hydrologist's comment that pumping large amounts of groundwater may constitute a diversion of Great Lakes water because such actions may alter groundwater divides. "In particular, withdrawals associated with urban expansion are most likely to divert water from the basin. At present, the effects of ground-water withdrawals have been quantified in only a few urban locations."

It is well known that groundwater discharge is important to the biological health of many Great Lakes streams. When undisturbed, groundwater discharge provides a stable inflow of water with consistent temperature, dissolved oxygen, and chemistry. Interruptions or alterations in this discharge can affect biological viability by affecting water levels, timing of freeze and thaw, and surface stresses to ecological communities beneath the land surface.[13]

Groundwater flow is also known to affect the health of wetlands, which provide significant value in the Great Lakes Basin for wildlife habitat and the filtering of pollutants. Understanding how groundwater withdrawals may affect these and other values is critical to any intelligent management of the Great Lakes system.

"...[I]n areas where there is a shallow groundwater table, and withdrawals are being taken from that shallow aquifer, the withdrawal has the potential of depressing (lowering) groundwater and influencing the hydrology of the wetland...When the hydrology is changed, the entire ecosystem is changed. The first order of changes occurs with vegetation. The plants adapted to the pre-change hydrology find it too dry and become stressed. Their stress allows other plants that can handle dryer conditions to get a

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[12] *Indirect Ground-Water Discharge to the Great Lakes,* U.S. Geological Survey Open-File Report 98-529 (1999).

[13] Norman G. Granneman et al, *Groundwater and Shared Aquifers: Working Paper No. 5* 16, U.S. Geological (2000).

foothold. As time goes on, the vegetation community can completely change. Since vegetation is the key to the structure and composition of wildlife habitat, the change in hydrology will eventually result in a change in habitat."[14]

In analyzing the state of knowledge regarding the role of groundwater in sustaining the Great Lakes ecosystem, experts reporting in 2000 to the IJC identified 7 critical data gaps to be closed in order to assure sound management of the resource:

1) Coordinated, standardized collection of basic hydrologic and geologic data on boundary and transboundary aquifers;

2) Coordinated, unified mapping of boundary and transboundary geologic units and aquifers;

3) The role of groundwater in sustaining aquatic ecosystems;

4) The effects of human activities on groundwater quality and availability;

5) Groundwater discharge to surface-water systems;

6) The role of wetlands in hydrologic and ecologic processes;

7) Systematic estimation of natural recharge rates.

The report concluded: "To derive the greatest benefit from the region's ground-water resources, and to ensure the prudent management of these resources, current and reliable scientific information is needed."[15]

* ***The precise significance of natural fluctuations in water levels and their effects on the ecosystem is unknown.***

The observed rise and fall of water levels in the Great Lakes since European settlement began has, at least until recently, been a natural characteristic of a complex system. Adapting to these fluctuations, flora and fauna have evolved in concert with the

[14] Personal communication, Wil Cwikiel, Water Quality Specialist, Tip of the Mitt Watershed Council, Petoskey, MI, February 13, 2001.

regime. For example, it is believed by ecologists that periodic low water levels in the Lakes permit regeneration of important wetland plants in areas immediately adjacent to the water's edge.[16] A permanent lowering of water levels resulting from increased diversions or bulk exports could have significant, if at present unquantifiable effects on wetland survival and productivity. Because coastal wetlands and nearshore zones are the primary habitat for fish spawning, lower levels could significantly alter a sport and commercial fishery valued at more than $4 billion annually.

Other economic effects can be best understood by examining the impact of current low water levels. To provide passage for recreational watercraft, owners of Michigan marinas and other boating facilities applied for a record 800 dredging permits in 2000, according to the U.S. Army Corps of Engineers. The Michigan Legislature created a $20 million low-interest loan program to assist smaller marinas in paying for dredging. A potential unanticipated cost of the dredging may be resuspension of toxic chemicals buried since the 1960s in river and lake sediments, making PCBs and other substances available to the water column again.

Lower water levels may well negatively influence tourism. MSU researchers found in a survey of over 3,700 visitors to Michigan in 1996 and 1997 that the "most frequently mentioned positive impression" of the state as a pleasure trip destination was "water-related resources," at 29%. The next closest positive impression was related –

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[15] *See supra* note 13 at 13.

[16] Personal communication, Chris Shafer, former chief, Great Lakes Section, Land and Water Management Division, October 12, 2000.

scenery, at 17%. The water-related resources category included lakes, lakeshores, and other resources.[17]

**** The effects of global climate change on the Great Lakes are speculative, but there is increasing evidence they will be significant in the 21st Century.***

Natural fluctuations in the levels of the Great Lakes have generally remained within a narrow range of about 6.5 feet. But warming of the climate, now regarded as a fact, is likely to pull fluctuations outside that range, with indeterminate effects on the ecology of the Lakes.

A recent analysis performed by scientists at the University of Michigan for the U.S. Environmental Protection Agency signals the possibility of dramatic change.[18] By enhancing evaporation in the Great Lakes drainage basin and over the lakes themselves, warming could reduce the levels of the Lakes anywhere from 0.75 to 8 feet, depending on the lake, in the period 2030-2090. This would lower levels in the ecologically rich and commercially valuable connecting channels from 1.6 to 8.2 feet, requiring extensive dredging there and in major harbors. "Such water level drops would endanger the usability of the Chicago diversion," the researchers report. "An extreme drop in the average lake level would dramatically affect the flow of water from Lake Michigan across the divide and to the Illinois River. This would force the Illinois Department of Natural Resources to either reverse the flow in the canal, posing serious health risks, or to dredge approximately 30 miles of the canal system, half of which would entail rock

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[17] Daniel M. Spotts, Dae-Kwan Kim, James A. Carr, Donald Holocek, *An Analysis of Michigan's Image as a Tourist Destination.* Proceedings of the 29th Annual Conference of the Travel and Tourism Research Association, Fort Worth, Texas (June 1998).

[18] Great Lakes Regional Assessment Group for the U.S. Global Change Research Program, *Preparing for a Changing Climate: The Potential Consequences of Climate Variability and Change* 19 (2000).

removal at a huge cost to the public."[19] Under this scenario, hydropower plants would be shut down, commercial navigation would rack up huge losses because of reduced shipping capacity, fisheries production would plummet, and significant harm could befall coastal wetlands and other water-dependent habitats.

On the other hand, the analysis notes, slight increases in the levels of Lakes Michigan and Superior could result under another scenario based, in part, on the possibility that the large surface of the lakes provides thermal inertia. "The different results from the two scenarios emphasizes [sic] the necessity of having policies and water management plans that are robust enough to function over a wide range of water supplies, lake levels, and flows," the authors conclude.

In light of these abundant uncertainties, one may persuasively argue that stewardship responsibilities – and the public trust doctrine, to be later explored – compel the states to exercise great caution in the permitting of increased water withdrawals and bulk exports. Individual or cumulative withdrawals may jeopardize the health of the system in unforeseen ways. Particularly in light of the history of unforeseen and costly ecosystem damage caused by human actions undertaken in ignorance of the ecology of the Great Lakes, a cautious approach to major new water uses is not only good public policy, but also a political requirement if the states are to show their judiciousness in conserving water.

[19] *See id.* at 31.

Chapter Two

A History of Disputes Over Great Lakes Water Withdrawals

The U.S. diversion of Great Lakes water dates back to the 1860s, while legal disputes over the diversion in U.S. courts reach back to the late 1800s. In the course of adjudicating these disputes, the courts have laid down important precedents that must be considered in the current debate about how best to conserve the lakes. At the same time, the region's political water fights have illustrated both the commonalities and the differences among the interests of the states in using and protecting the lakes. The Chicago diversion, by far the biggest diversion of water from the lakes, has long assumed the central place in litigation and social concern over diversions.[20]

The initial Chicago diversion, undertaken in 1848, was done to create the Illinois and Michigan Canal to facilitate navigation between Lake Michigan and the Mississippi River. But the purpose soon shifted to protection of public health. Choking on its own sewage in the second half of the 1800s, Chicago won its initial approval from the Illinois Legislature to provide a gravity flow of the Chicago River into the Illinois River watershed in February 1865. As typhoid deaths from exposure to sewage off the City of Chicago increased in the late 1880s, city officials sought to shunt sewage away from drinking water intakes and public beaches and down the Chicago River.[21] In January 1900 the Chicago Sanitary District permanently reversed the flow of the river, sending water that formerly flowed into Lake Michigan down a 28-mile artificial channel to

[20] For a complete list of both interbasin and intrabasin diversions of Great Lakes water as of 2001, see Appendix B.

Lockport, Illinois. The U.S. Army Corps of Engineers expressed serious misgivings about the reversal, issuing a permit for the opening of the canal that was conditional on future action of Congress and subject to a shutoff if the current created by the project caused damage to navigation or property. The Corps limited the flow of the reversed river to 200,000 cubic feet per minute, or 3,333 cubic feet per second (cfs). As Chicago grew and its volume of sewage increased, the Sanitary District applied for increases of the flow to 300,000 cubic feet per minute in 1901 and 350,000 cubic feet per minute in 1903. The Corps granted both requests, again with conditions. In 1912, the Sanitary District asked for an increase to 10,000 cfs but the Corps balked, noting that construction of sewage treatment works make the increased diversion unnecessary. Early in 1913, the Secretary of War denied the application.

In both 1908 and 1913, the U.S. filed suit against the Sanitary District, seeking to limit the diversion to 4,167 cfs. In the latter year, Chicago was taking an average water amount of 7,839 cfs from the Great Lakes Basin. After years of delay, the U.S. Supreme Court ruled in favor of the federal government in January 1925. But local Congressmen had introduced bills to authorize the increased diversion, and the Sanitary District applied again for permission to increase the diversion to 10,000 cfs less than a month after the Supreme Court ruling. Buckling slightly under political pressure, the Corps approved a five-year permit authorizing an increase to 8,500 cfs. But the Corps permit required the Sanitary District to complete construction, within the life of the permit, of a sewage treatment plant large enough to handle the wastes of a population of 1.2 million. While

[21] According to the IJC, 90,000 people, roughly 12 percent of the Chicago area population, died in 1885 when a heavy rainstorm overwhelmed the city's sewer system and polluted drinking water sources.

accepting the permit, the Sanitary District asserted a right to divert 9900 cfs, using its own calculations.

Michigan and other Great Lakes states intervened. In its 1926 complaint made directly to the U.S. Supreme Court, Michigan accused the Sanitary District of "grossly and willfully" violating each of the permits issued by the federal government. The complaint also charged that the Sanitary District had "asserted the right to abstract unlimited quantities of water from the Great Lakes-St. Lawrence System without the consent and in defiance of the government of the United States and of the other states bordering on the waterway."[22]

Knowledge of ecology was not the primary basis for Michigan's case. Rather, the quarter-century of reversed flow in the Chicago River had, according to the state, demonstrably lowered water levels in all the Great Lakes but Superior. Michigan alleged that Lakes Michigan and Huron had dropped six inches, Lakes Erie and Ontario 5 inches. The 1925 increase had lowered Lakes Michigan and Huron by six and three-quarters inches. The drop would be even greater if the Sanitary District was successful in its generous interpretation of the most recent Corps permit.

Michigan complained of damage to shipping from reduced drafts on commercial vessels, harm to agriculture from the lowering of the water table along the Lake Michigan shore, injury to drinking water supplies from increased sand and sediment at the mouth of intakes, and costs to the resort industry from reduced value of summer cottages and homes. Almost as an afterthought, the state noted that lowered water levels interfered

[22] William W. Potter, Attorney General, State of Michigan, complaint filed in *State of Michigan v. State of Illinois and the Sanitary District of Chicago* (1926).

with "the natural habitat of the wild life indigenous to this territory" and impaired the spawning beds of fish.

The threat from Chicago created the first official Great Lakes coalition, unifying states that might disagree on other issues. In 1922 the *Detroit News* approvingly republished an editorial from the *Milwaukee Journal* accusing Chicago of "supreme insolence," and arguing that the increased diversion was actually a sneak attempt to generate hydropower. Rebutting the argument that the diversion was necessary to dilute sewage, the editorial commented acidly that "no other Great Lakes city has found it necessary to use the lakes so as to safeguard a population. They construct modern sewage disposal systems. These cities, and the smaller disposal ports on the lakes, are justified in expecting as much from Chicago – richest of them all."[23]

The Supreme Court found the law on the side of the complaining states in 1930, but refused to end the diversion for fear of causing too great a hardship for the city and its sanitary district. It gave the defendants a grace period to raise the money for construction of sewage plants and limited the diversion to 1500 cfs, plus domestic pumpage, after the plants were built. Subsequent rulings in the 1930s and 1960s both sustained the diversion and limited it. The latter decision granted Chicago a diversion of 3,200 cfs, but the Supreme Court retained original jurisdiction to settle future disputes – and does to this day.

During the 1950s and 1960s, public and official concern about the lakes focused on their serious pollution problems. Chemical pollution and nutrient enrichment caused by excess phosphorus from municipal discharges closed beaches and rendered many

[23] *Detroit News,* "Stealing Lake Michigan," (1922).

stretches of the lakes unsightly, if not unsafe. Public outrage drove governments to act. In 1968, Michigan voters approved a $335 million clean water bond to pay for improved treatment of water discharges. In 1972, the same year that the U.S. Congress enacted forceful amendments to the Federal Water Pollution Control Act, also known as the Clean Water Act, the U.S. and Canada consummated the Great Lakes Water Quality Agreement. These actions not only committed governments to restoring the quality of the lakes, but broadened appreciation of the Great Lakes as an integrated ecosystem, more vulnerable to damage caused by human activities than previously thought.

By the late 1970s the issue of increased Great Lakes water diversion was again stirring public concern. Although the amount of water required would have been relatively slight, a proposal to construct a slurry pipeline from the western end of Lake Superior to coal fields in Wyoming elevated the issue to public attention. Unfavorable economics and opposition from railroads tabled the project. But a 1981 study by the International Joint Commission, conducted at the request of the two federal governments, forecast rising demand for water from arid regions of the United States and Canada and suggested harmful effects to the ecosystem. Although a 1982 U.S. Army Corps of Engineers study found that a diversion of Great Lakes water to restore declining groundwater levels in the Ogallala Aquifer underlying the Great Plains was not economically feasible, the mere discussion of the idea outraged Great Lakes politicians and their constituents, uniting them even more than the original Chicago diversion had done. The region was in the midst of a near-depression. The prospect of losing water as well as jobs insulted the region's citizens.

Outgoing Governor William Milliken organized a June 1982 meeting of Great Lakes Governors and Premier William Davis of Ontario on Mackinac Island to discuss the issue, just as the region's top governmental executives had joined to discuss grave pollution problems on the island in 1970. Attracting considerable press coverage, the conference resulted in no decisions but enabled Milliken to remind the public of the significance of the Lakes and to refer to the fast-growing southern and western U.S. as the "parchbelt" rather than the "Sunbelt." Milliken said water "can become a major component in our region's economic recovery" but warned of "a growing threat of diversion of Great Lakes waters outside our basin without our mutual consent."[24]

James Blanchard, the next governor, had attempted to build a political identification with the lakes by introducing legislation dubbed the "Great Lakes Protection Act" in his final term in the U.S. House of Representatives. Sensing a virtual consensus of opposition to the idea of sending Great Lakes water out of the region, he declared in his early environmental speeches that he would work to build a barrier against such transfers. Creating an Office of the Great Lakes in the Department of Natural Resources to coordinate the state's Lakes policies, Blanchard in 1984 also named University of Michigan law professor Joseph Sax, the author of the 1970 Michigan Environmental Protection Act, as his negotiator on a proposed interstate agreement to tighten controls on water diversions and major new water uses.

Outright opposition to any water diversions was not something to which all eight Great Lakes states could agree. As noted, Michigan is the only state lying almost entirely within the Great Lakes Basin. Like Illinois, the six other states besides Michigan

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[24] Office of the Governor, *Addresses and Special Messages of Governor William G. Milliken, 1969-1982:* Remarks at Great Lakes Water Resources Conference, 137 (1982).

encompass significant areas outside the Basin, and some wanted to reserve the right to divert water for their own future growth. U.S. Supreme Court rulings on cases involving the interstate commerce clause also complicated the Great Lakes states' work. It was clear to Sax that the Court would not look favorably upon a simple diversion ban, on the grounds that it would be a discriminatory interference with commerce not based on protection of the public health, safety and welfare.[25]

Sax took the lead during 1984 in drafting a proposed "Great Lakes Charter" which required the states to develop permit programs for all major water uses while developing an information base to monitor uses and a research program to discern the potential harmful effects of lowered water levels that diversions or consumptive uses would cause. This suggested Michigan might allow water diversions under certain restrictions. The MUCC's executive director, Tom Washington, who had clashed with Sax over Michigan's Pigeon River drilling controversy in the 1970s, reacted indignantly to the idea of permitting some diversions. His loud protests, published in newspapers, prompted Blanchard to ask for the removal of the reference to a permitting statute. Sax resigned his post, thinking Michigan's position now legally untenable, but talks on the Charter moved forward.

Backed by former Governor Milliken, Blanchard chose to go ahead with the signing of the Charter despite Washington's continued criticism. Perhaps the non-binding Charter's most important accomplishment was to institutionalize the notion of interstate consultation and cooperation on major water resource decisions. The signing states agreed to notify and consult with each other before approving diversions or major new uses, to develop a water use information base, and to create a collective water

[25] Joseph Sax to James J. Blanchard, December 1984.

management plan. While Michigan made no commitment to enact a permitting law, it would not become a full partner in the Charter's processes until it at least enacted laws requiring major water users to report to the state.

Six governors of Great Lakes states and a representative of Quebec signed the Charter in Milwaukee in February 1985. Blanchard said it "sent a clear signal to the Sunbelt states – indeed, to any who might covet Great Lakes basin water – that this region stands united and is determined to protect and manage wisely our water resources."[26] Environmentalists and the *Detroit Free Press* were skeptical, with the newspaper pointing out what it regarded as more urgent threats to the Lakes, including hazardous pollutants. "But if this business of working together on the Lakes becomes common in the capitals of the Great Lakes states and provinces, the charter will be worth the effort to draft it, and much more important than the cry of defiance against the Sunbelt that it is now."[27]

Responding to the regional concern about Great Lakes water diversions, members of the Basin's Congressional delegation quickly crafted an amendment to a water development projects bill intended to buttress the defense erected by the Charter. In 1986, as a minor section of the Water Resource Development Act (WRDA), Congress approved a statute that significantly altered the federal-state relationship in regulating diversions. Finding that the Great Lakes were a "most important natural resource" that "need to be carefully managed and protected," Congress provided:

"No water shall be diverted from any portion of the Great Lakes within the United States, or from any tributary within the United States of any of the Great Lakes, for use

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[26] *Detroit Free Press*, "Provinces, States Agree to Protect Great Lakes," February 12, 1985.
[27] *Detroit Free Press*, "Great Lakes: Maybe Now Leaders Can Join Hands Against the Real Enemy," February 12, 1985.

outside the Great Lakes Basin unless such diversion is approved by the Governor of each of the Great Lake States."[28]

Clearly crafted to support the emerging regional cooperation among the Great Lakes Governors, the new federal law appeared to surrender latent Congressional authority over water diversions from the Great Lakes to the region's governors. The Charter and WRDA have operated in tandem to create a regional roundtable among the states and with Ontario and Quebec on proposed major water uses. The Charter's mandate for prior notice and consultation and the veto power provided any Great Lakes Governor have stimulated the jurisdictions to communicate on most proposed major water uses.

The states consulted on the Pleasant Prairie, Wisconsin diversion in 1989, a Lowell, Indiana proposal in 1992 and an Akron, Ohio project in the late 1990s. The 1989 Wisconsin diversion proceeded when Blanchard did not object.[29] Michigan Governor John Engler vetoed the Indiana diversion but approved the Akron diversion in 1998 on the grounds that the community would return an equal amount of clean water to the Great Lakes Basin.[30]

In 2000 Tracy Mehan, appointed by Engler to run the state's Office of the Great Lakes, observed that "the current legal regime, evolving in the context of long-standing, effective interstate and binational cooperation, has worked reasonably well over the last decade and a half." But, he warned, "new challenges arising from globalization, a thirsty

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[28] 42 U.S.C., § 1962d-20 (1986).

[29] WRDA appears to require the approval of each Great Lakes governor, but Blanchard's silence was not tested in court.

[30] Michigan initiated the regional notice and consultation process on a proposed irrigation project at Mud Creek in the Thumb in the early 1990s. Although Governor Evan Bayh of Indiana objected to the proposed consumptive use under the Great Lakes Charter (the project was not covered by WRDA), Michigan implemented the project anyway.

world, and a burgeoning science of ecology will, inevitably, require revisiting and reforming this legal system sooner rather than later."[31]

[31] G. Tracy Mehan III, *The States' Experience Managing the Waters of the Great Lakes*, Great Lakes Water Law Conference, February 25, 2000.

Chapter 3

The Public Trust Doctrine: Literature Review and Discussion

The Origin and U.S. Application of the Doctrine

The public trust doctrine is an evolving common law principle which holds that certain natural resources are common to all, are held in trust for the people by the state, and cannot be alienated from public ownership. These resources were traditionally held to be shoreline areas, navigable waters, and the lands beneath the navigable waters. The uses traditionally protected were commerce, navigation, and fishing. Although the U.S. Supreme Court decided the first landmark public trust case in the United States in 1892,[32] the interpretation of the doctrine as encompassing additional natural resources only occurred as national concern mounted about degradation of the environment in the 1960s and 1970s.

Although characterized by some as an amorphous concept that should have little if any role in decision making concerning natural resources, the public trust doctrine now has an accepted place in the adjudication of disputes over the use and development of natural resources in the United States. The rising trajectory of the doctrine's interpretation in natural resources litigation since the 1960s suggests it may have a fundamental role to play in the future of large-scale water diversions and consumptive uses in the Great Lakes Basin.

Legal experts have traced the public trust doctrine to Roman law.[33] A classification scheme in ancient Roman law divided properties into public and private

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[32] *Illinois Central Railroad v. Illinois,* 146 U.S. 387 (1892).
[33] R. Sohm, J. Ledlie trans., *The Institutes: A Textbook of the History and System of Roman Private Law* (1970).

categories. Within the public categories were *res ominium communes*, which included the air, the waters of natural streams, the sea, and the seabed.

By the sixth century, a similar classification system acknowledged property held for common use.[34] This property could never be the object of exclusive individual rights, according to the Codex Justinianus. Two subsequent works further elaborated on this concept. The Institutes of Justinian, "a sort of legal textbook for law schools," and the accompanying Digest, which contained the writings of Roman jurists, delineated specific public rights in the use of the seashore, including the right to haul nets from the sea and dry them; the right to fish from the shore; and the right to build structures on the shore or on piles to support such uses.[35] Ultimately, the sovereign was held to be the "owner" of the common resources.

Following the Norman conquest, English common law adopted much Roman civil law, although with modifications. In British law, title to public lands was held in trust by

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[34] Johanna Searle, *Private Property Rights Yield to the Environmental Crisis: Perspectives on the Public Trust Doctrine,* Johanna Searle, 41 South Carolina Law Review 899 (1990).

[35] The Institutes read in pertinent part: "1. By the law of nature these things are common to mankind---the air, running water, the sea, and consequently the shores of the sea. No one, therefore, is forbidden to approach the seashore, provided that he respects *habitationes*, monuments, and buildings which are not, like the sea, subject only to the law of nations.

"2. All rivers and ports are public; hence the right of fishing in a port, or in rivers, is common to all men.

"3. The seashore extends as far as the greatest winter flood runs up.

"4. The public use of the banks of a river is part of the law of nations, just as is that of the river itself. All persons, therefore, are as much at liberty to bring their vessels to the bank, to fasten ropes to the trees growing there, and to place any part of their cargo there, as to navigate the river itself But the banks of a river are the property of those whose land they adjoin; and consequently the trees growing on them are also the property of the same persons.

"5. The public use of the seashore, too, is part of the law of nations, as is that of the sea itself; and, therefore, any person is at liberty to place on it a cottage, to which he may retreat, or to dry his nets there, and haul them from the sea; for the shores may be said to be the property of no man, but are subject to the same law as the sea itself, and the sand or ground beneath it."

the King for the benefit of the nation. While the king could grant land under English waters, such as navigable waters and tidelands, to private owners, such grants were subject to the public's paramount right to the use of the waters. The King could neither diminish nor destroy that right. Any grant that interfered with the implied reservation of the public right or harmed the public interest was rendered void. The Parliament could, however, exercise its police power to enlarge or restrict public rights in order to advance a public purpose.

British courts reasoned that the common right to use the sea and navigable rivers was important to commerce and trade and that private appropriation of the use could impair such public benefits. They permitted state regulation of the public use of navigable waters only in the public interest and only consistent with the preservation of a public right.

The common law of England then became the foundations of the law of the original 13 American colonies, and, subject to modifications by Congress and the states, of the law of the United States. Courts have interpreted this to mean that the 13 colonies and the original 13 confederated states held sovereign control over their seashores. These states determined the extent of their own public trust shore lands through statutes or the courts. But several core principles were identified and passed on to the 37 states that have since joined the Union. These principles hold that each state:

- Has public trust interests, rights and responsibilities in its navigable waters, lands beneath those waters, and the living resources therein;
- Has the authority to define the boundary limits of the lands and waters held in public trust;

- Has the authority to recognize and convey private proprietary rights in its trust lands with the corollary responsibility not to substantially impair the public's use and enjoyment of the remaining trust resources;
- Has a trustee's duty and responsibility to preserve and assure the public's ability to fully use and enjoy public trust lands and waters for certain trust uses;
- Does not have the power to abdicate its role as trustee of the public's rights in trust resources.[36]

The extension of these principles to the 37 states that subsequently joined the Union, including six of the eight Great Lakes states, is the result of the equal footing doctrine, to be discussed later in this text. Interpreting this doctrine, courts have regularly held that either tidewaters or navigable waters were not granted by the Constitution to the United States, but were reserved to the states.

But the matter of what constitutes the inalienable public trust resources has not always been clear. For one thing, public trust land is vested with two titles – the *jus publicum,* or collective rights of the public to fully use and enjoy trust lands and waters for commerce, navigation, fishing, bathing and other related purposes, and the *jus privatum* interest, which may be conveyed into private ownership. "Nearly one-third of all public trust land is privately owned."[37] But even where this is the case, the state retains and holds in trust the *jus publicum* interest.

The definition of the waters subject to the public trust doctrine has evolved. In England, few waters were considered navigable that were not subject to tides; hence, tidal

[36] David C. Slade, editor, *Putting the Public Trust Doctrine to Work: The Application of the Public Trust Doctrine to the Management of the Lands, Waters and Living Resources of the Coastal States* 17 (1990).

and navigable waters were virtually synonymous. Faced with a dramatically different topography and hydrology, American courts have had to wrestle with the terms "tidal" and "navigable." Until 1851, the U.S. Supreme Court held to a tidal test of navigability. But in a case involving the collision of vessels on Lake Ontario, the Court upheld an 1845 act of Congress extending the reach of federal courts to all navigable-in-fact lakes and rivers.[38] Ultimately the Court held that for title purposes, lands beneath navigable waters passed to the new states as they entered the union on an equal footing with the 13 original states. But while it is a federal question what lands and waters were received in trust by a state upon entering the Union, the states themselves have the power to define the limits of the lands held in public trust and to recognize private rights in such lands.

What lands are within the public trust? The answer to this question has, too, varied over time. In five Atlantic states, private ownership of tidelands can extend to the ordinary low water line, or even further seaward, although the public retains trust rights of use up to the ordinary high water mark. That is, while the *jus privatum* title may extend to the low water mark, the *public trustee retains the jus publicum.* In a 1988 decision in *Phillips Petroleum v. Mississippi,*[39] the U.S. Supreme Court stood by the tidal test rather than navigability-in-fact as the basis for determining lands subject to the public trust doctrine.

The question of which lands in freshwater ecosystems were public trust lands was initially in dispute, since tides did not wash them. But more than a century after the landmark U.S. Supreme Court decision in *Barney v. Keokuk,*[40] it is now settled law that

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[37] *See id.* at xix.
[38] *The Genessee Chief v. Fitzhugh,* 53 U.S. 443, 454 (1851).
[39] *Phillips Petroleum Co. v. Mississippi,* 484 U.S. 469, 478 (1988).
[40] *Barney v. Keokuk,* 94. U.S. 324 (1876).

lands under navigable freshwater lakes and rivers were within the public trust given the 37 states admitted subsequent to the initial 13. Such lands are held to extend to the ordinary high water mark. Interestingly, while the Court recognized in *Phillips Petroleum v. Mississippi* that the many diverse public uses of public trust tidelands would not be well guarded or protected solely by the navigability test, the same test is the sole determinant of whether freshwaters are subject to the doctrine.

A Detailed History of Public Trust Rulings

U.S. courts made several significant rulings involving the public trust doctrine in the early 1800s. In an 1821 case, *Arnold v. Mundy,* the New Jersey Supreme Court found in favor of defendant Mundy in a case involving alleged trespass by Mundy into an oyster bed in Raritan Bay.[41] While Arnold claimed title to the bed, the court held that any grant of the land beneath Raritan Bay that had been made by the Crown, and carried over under American law to the State of New Jersey as sovereign, had been made subject to the right of the people to navigate and fish.

The same resource was the subject of an 1842 case, *Martin v. Waddell*, resolved by the U.S. Supreme Court.[42] The plaintiff claimed title to the oyster fishery in Raritan Bay by virtue of an express grant by the New Jersey Legislature. Rather than ruling on the applicability of the public trust doctrine, the Court sustained the grant on separate grounds, thus creating an apparent inconsistency.

In the 1892 *Illinois Central* ruling, the Supreme Court clarified and strengthened the U.S. application of the public trust doctrine. Joseph L. Sax, one of the staunchest

[41] *Arnold v. Mundy,* 6 N.J.L. 1 (1821).
[42] *Martin v. Waddell,* 41 U.S. 367 (1842).

defenders of the doctrine in modern America, in 1970 called the case "the lodestar in American public trust law."[43]

In 1869 the Illinois legislature granted extensive submerged lands at Chicago to the railroad. The grant conveyed all the land extending one mile out from the shoreline, and one mile in length along that shoreline in the heart of the city. Four years later the legislature repealed the 1869 law conveying the land and brought an action to declare the original grant invalid. The Supreme Court upheld the state's claim.

The Court did not hold that a state may not grant public trust property to private parties. Rather, apparently impressed by the enormous size of the conveyance to the Illinois Central, the Court found that the state had essentially abandoned its authority to protect the relevant shore lands for public use, especially navigation. The court said: "The state can no more abdicate its trust over property in which the whole people are interested, like the navigable waters and the soils under them,...than it can abdicate its police powers in the administration of government and the preservation of the peace."[44]

The Court made several other important findings. In determining whether a legislative rescission of the original conveyance was proper, the Court affirmed that Illinois was admitted to the Union in 1818 on an equal footing with the original 13 states. This entitled Illinois to sovereign ownership of the Great Lakes submerged lands within its borders and clarified that the public trust doctrine did not apply only to the 13 states that had formed the United States in 1787, which previous rulings had implied.

Significantly, the Court distinguished between the sale of noncoastal public lands that Illinois had received in being admitted to the Union, and the sale of submerged lands

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[43] Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 *Michigan Law Review* 489 (1970).

falling under the public trust doctrine. The title to the submerged lands was different in character because it was "held in trust for the people of the state that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interferences of private parties."[45] In contrast, noncoastal public lands sold by Illinois to private parties would not likely interfere with such public interests as navigation and commerce.

Sax suggested that one basis of the Court's ruling was a view of government as operating "in order to provide widely available public services, such as schools, police protection, libraries, and parks." While governments might direct resources to benefit particular subpopulations, such as farmers or the poor, such actions would typically be based on a finding that the public interest was served. Sax notes that transferring the submerged lands to a railroad advanced no rational goal of government. Most relevant to the application of the public trust doctrine, it was unlikely to provide for the maintained public access to and use of the trust resources.

The case has shaped more than a century of law and inspired some to detect a potentially expansive role for the state in protecting environmental resources. As articulated by the court in *Illinois Central*, "the basic common law principle of the public trust doctrine is that the trust can never be surrendered, alienated, or abrogated. It seems to be a rule, beyond question, that the rights of the public are impressed upon all navigable waters, *and other natural resources which achieve a like public importance* [emphasis added]. And the state may not, by grant or otherwise, surrender such public

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[44] See *Illinois Central*, *supra* note 33 at 453.
[45] *See id.* at 452.

right any more than it can abdicate the police power or other essential powers of government."[46]

Sax traces the evolution of the public trust doctrine at the state level through several landmark cases. In *Gould v. Greylock Reservation Commission*,[47] the Supreme Judicial Court of Massachusetts applied the doctrine to changes in the use of lands dedicated to the public interest. In the late 1800s a citizens association had formed to set out a public park on Mount Greylock. The state acquired approximately 9,000 acres at the site and the state legislature created the Greylock Reservation Commission to act as a park commission. In 1953 the legislature created an authority to construct an aerial tramway and ski development on the mountain and authorized the Commission to lease lands to the authority. The authority ultimately leased 4,000 acres of the reservation from the Commission, and prepared to build the tramway and ski development. Five citizens of the county in which the reservation is located sued the Greylock Reservation Commission and the Tramway Authority. Acting as beneficiaries of the public trust, they asked the court to declare invalid the lease of the 4,000 acres of land and an agreement between the Authority and a management corporation, which had contracted to build and manage the development. The citizen plaintiffs asked the court to interpret narrowly the statutes authorizing the project to prevent the large-scale development and the transfer of powers to a profit-making corporation. Sax points out that the case "seemed an exceedingly difficult one for the plaintiffs, both because the statutes creating the Authority were phrased in extremely general terms, and because legislative grants of

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[46] James M. Olson, *The Public Trust Doctrine: Procedural and Substantive Limitations on the Governmental Reallocation of Natural Resources in Michigan*, 1975 *Detroit College of Law Review*, 163 (1975).

[47] 350 Mass. 410, 215 N.E. 2d 114 (1966).

power to administrative agencies are usually read quite broadly. Certainly, in light of the statute, it could not be said that the legislature desired Mount Greylock to be preserved in its natural state, nor could the legislature be said to have prohibited leasing agreements with a management agency.'[48] Yet the plaintiffs prevailed.

The locus of the Court's finding was the project's profit sharing feature, which it said "strongly suggest a commercial enterprise." The Court found no authorization from the legislature to the Authority to permit the use of public lands and borrowed funds for a commercial venture for private profit. Rather than striking down the legislative act itself, the court devised a rule that presumes that the state does not ordinarily intend to divert trust properties so as to lessen public uses. The plaintiffs prevailed because the Court found that the proposed project, as constituted by the Authority, did lessen such uses.

Another important public trust doctrine case is *Just v. Marinette County*, decided in 1972. The *Just* plaintiffs purchased lake front property in 1961. Six years later, Marinette County passed a Shoreland Zoning Ordinance that required permits for activities that involved substantial changes to the natural character of the wetlands adjacent to navigable waters. The Supreme Court of Wisconsin held that enforcement of the ordinance would not work a taking:

> "This is not a case where an owner is prevented from using his land for natural and indigenous uses. The uses consistent with the nature of the land are allowed and other uses recognized and still others permitted by special permit. . . .The changing of wetlands and swamps to the damage of the general public by upsetting the natural environment and the natural relationship is not a reasonable use of that land which is protected from police power regulation."

This construction of the public trust doctrine to enable governments to protect resources held in trust has been applied elsewhere. For example, a Florida appellate court

[48] *See* Sax, *supra* note 43 at 493. supra note 5, p. 493.

rejected a takings challenge to prohibitions on offshore drilling on the ground that the public trust doctrine permitted the legislature to exercise without compensation its "authority to protect the lands held in trust for all people." Courts have also recognized that the public trust doctrine limits private rights in a non-takings context.

In a 1969 case, citizens concerned about protecting a singular fossil bed successfully invoked a variant of the public trust doctrine. A group called Defenders of Florissant sued to block the development of Colorado's Florissant fossil beds, a 6,000-acre site internationally known for its geological richness. Prehistoric volcanic eruptions and mud flows engulfed and buried lakeshore trees, insects, leaves, and other forms of life. By the late 1800s scientists had already identified the site as one of the richest in the world for high-quality fossils. In recognition of its scientific value and also its wildlife populations and scenic beauty, Congress had begun moving toward purchase of the site for preservation as a national monument. But the private owners of the site were moving even more quickly to convert the land to a subdivision. The U.S. Tenth Circuit Court of Appeals issued an injunction blocking the developers from proceeding until Congress could act. The land was ultimately purchased and made into a national monument.

Because the Court was never required to issue an opinion in the case, its significance in advancing the public trust doctrine is somewhat speculative. The plaintiffs sought to articulate a public trust responsibility for the private owners of the land, arguing "that the Defendants individually and their Successors in Interest, hold the unique national natural resource of the Florrisant Fossil Beds, with respect to its paleontological,

paleobotanical and palynological values in trust for the full benefit, use and enjoyment of all the people of this generation, and those generations yet unborn."[49]

California courts substantially expanded the reach of the public trust doctrine in the 1970s and 1980s. In the 1971 case of *Marks v. Whitney,* the trial court applied the trust to a case involving the filling of submerged lands by a private owner, which would have harmed private shoreowners and depleted fish and waterfowl populations.[50] Noting that the public trust had historically been defined in terms of navigation, commerce and fisheries, the court said times called for a changing interpretation.

> In administering the trust the state is not burdened with an outmoded classification system favoring one mode of utilization over another. There is a growing public recognition that one of the most important public uses of the tidelands – a use encompassed within the tidelands trust – is the preservation of those lands *in their natural state*, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life, and which favorably affect the scenery and climate of the area [emphasis added].[51]

In a 1983 ruling in *National Audubon Society v. Superior Court of Alpine County*, the Supreme Court of California modernized the application of the public trust doctrine in a case touching directly upon the interbasin diversion of water and its effect on public trust resources.[52]

The second largest lake in California, Mono Lake is saline and supports a large population of brine shrimp that are a major food supply for nesting and migratory birds. A large breeding colony of California gulls, about 25 per cent of the world's population of the birds, inhabit islands in the lake. Spires of tufa on the north and south shores are an unusual tourist attraction and a feature of geologic interest. Historically, snowmelt in the

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[49] Victor L. Yannacone, re: *Defenders of Florissant v. Park Land Development Co. et al,* (unreported), *Environmental Law*, 47-60 (1970).
[50] *Marks v. Whitney,* 6 Cal. 3d 251 (1971).
[51] *See id.* at 380.

Sierra Nevada flowed through five freshwater streams to replenish the lake. But in 1940, the state of California granted the City of Los Angeles a permit to take almost the entire flow of four of the streams to support the city's rapidly expanding population. The City completed two diversion tunnels by 1970 to take the water.

The level of the lake dropped 45 feet and its surface area diminished one-third. The lowered water levels exposed a land bridge to one of the two principal islands in the lake, permitting predators to exploit the gulls there. The shrimp hatch fell 50 per cent in 1980 and 95 per cent in 1981. In addition, the dried former lakebed contributed to unhealthful blowing dust in the area, violating the Clean Air Act. The court found "that both the scenic beauty and the ecological values of Mono Lake are imperiled."

The court's ruling turned on a joint reading of the appropriative water rights system that had traditionally characterized California water law *and* the public trust doctrine. While the Court refused to strike down all granted rights to divert water if they jeopardized public trust values, it articulated a new principle that state agencies and courts must consider the effect of such diversions on public trust values and attempt, as far as feasible, to avoid or minimize any harm to those values. The Court declared:

> "Thus, the public trust is more than an affirmation of state power to use public property for public purposes. It is an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust."

The significance of the court's ruling is that it clearly recognized that the public trust doctrine could encompass the environmental values of Mono Lake, including its scenic beauty and importance as habitat for wildlife and shrimp. This was an important departure from a traditional interpretation in which public uses, such as navigation, trade

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[52] *National Audubon Society et al v. Superior Court of Alpine County,* 33 Cal. 3d 419 (1983).

and fishing, were the primary public interests protected by the doctrine. Perhaps most importantly for the issue of Great Lakes water diversions, the court extended the reach of the public trust doctrine to non-navigable tributaries. That is, if the ecosystem of Mono Lake depended, in large part, on the flow supplied by such tributaries, then the public trust in the Lake's ecosystem was jeopardized by diversion of the tributaries.

Sax, one of the leading authorities on the public trust doctrine, has noted and argued for an expansion of its application during his career. "It is clear that the historical scope of the public trust law is quite narrow," Sax wrote in 1970. "Its coverage includes, with some variation among the states, that aspect of the public domain below the low-water mark on the margin of the sea and the great lakes, the waters over those lands, and the waters within rivers and streams of any consequence. Sometimes the coverage of the trust depends on a judicial definition of navigability, but that is a rather vague concept which may be so broad as to include all waters which are suitable for public recreation. Traditional public trust law also embraces parklands, especially if they have been donated to the public for specific purposes..."[53]

Sax argued for a more expansive view ten years later, saying that the core of the trust idea would not be found in Roman law or the English experience.[54] Observing that the "essence of property law is respect for reasonable expectations," Sax said that this idea of justice had wrongly been applied only to private property rights. In cases involving natural resources under threat of rapid depletion or eradication, where destabilizing change threatened the public's "reasonable expectations" of continued access to and enjoyment of those resources, the doctrine could be said to emerge from

[53] Sax, *see supra* note 5, p. 556.

property law. Said Sax: "The central idea of the public trust is preventing the destabilizing disappointment of expectations held in common but without formal recognition such as title. The function of the public trust as a legal doctrine is to protect such public expectations against destabilizing changes, just as we protect conventional private property from such changes."

In the last 30 years, both case law and scholarly thinking has pushed the public trust doctrine a great distance. One agricultural economist has suggested that the public interest in a food supply justifies application of the doctrine to vanishing farmland.[55]

"The public trust approach to a farmland protection strategy is not a government vs. landowner issue but a matter of acknowledging the broad though disorganized interest in the public good aspects of farmland. It is an issue of competing rights, those of the owner and those of the broader public with the latter focused on selected side products of agriculture that accompany the target commodity but are not part of the transaction in the land market. The public trust doctrine could be seen as freedom expanding rather than limiting, enhancing the set of choices for future generations in the use of the ecological systems known as farmland."

While the public trust doctrine has not as yet been invoked to provide a shield of protection for the waters of the Great Lakes themselves, as opposed to their bottomlands, there is increasing support for its use as a strong underpinning for protection of whole ecosystems or even economically valuable and threatened natural resources.

The Potential Power of the Public Trust Doctrine

The significance of the public trust doctrine may be regarded, in one sense, as revolutionizing the management of critical natural resources. Some would argue the doctrine shifts the burden of proof from the regulator, acting on behalf of the public, to the developer or applicant. James T. Paul contends:

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[54] Joseph L. Sax, *Liberating the Public Trust Doctrine from its Historical Shackles,* 14 University of California-Davis Law Review 185 (1980).

"The doctrine complements state constitutions, and state and federal statutes. It is potentially powerful. It can override statutes when they conflict with public trust purposes. The doctrine can provide relief for the decision-maker; it has been crafted by decision-makers. It changes the regulators' job from (a) deciding when should we alter and in many cases destroy natural resources – perhaps gradually but inevitably and with certainty – into (b) drawing a fairly firm line as to which resources we must protect. That is at the heart of the doctrine: identifying what resources should be protected over a period of time that spans generations."[56]

The doctrine can thus be said to put in place the precautionary principle, a concept advanced chiefly by environmental organizations in arguing for protection of the status quo in the face of significant uncertainties about the effect of proposed actions on public health and the environment. In arguing for Great Lakes water policies based on this principle, environmental groups define it thus: "...[I]n the absence of certain knowledge, we should have a strong bias toward protection."[57] In the context of managing the environmental risks of pesticides, the Worldwatch Institute says the principle holds that "even in the face of scientific uncertainty, the prudent stance is to restrict or even prohibit an activity that may cause long-term or irreversible harm."[58]

Paul further defines the precautionary principle in application:

"When the environmental effects of a proposed activity are unknown or uncertain, the precautionary principle instructs regulators to err on the side of preventing environmental harm. The precautionary principle thus gives regulators wide latitude to take precautionary measures to protect natural resources and also the public health (which is invariably impacted by environmental damage). The legal ramification of this authority

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[55] Lawrence L. Libby, *In Pursuit of the Commons: Toward a Farmland Protection Strategy for the Midwest*, Center for Agriculture in the Environment, Working Paper 2 (1997).

[56] James T. Paul, *The Public Trust Doctrine: Who Has the Burden of Proof?*, presentation at July 1996 meeting of the Western Association of Wildlife and Fisheries Administrators.

[57] Great Lakes United, Canadian Environmental Law Association, National Wildlife Federation, Lake Michigan Federation, Strategies St.-Laurent, *Water Use and Ecosystem Restoration: An Agenda for the Great Lakes and St. Lawrence River Basin* at 13, December 2000.

[58] Anne Platt McGinn, *Why Poison Ourselves? A Precautionary Approach to Synthetic Chemicals*, Worldwatch Paper 153 17-18 (2000), Worldwatch Institute.

is an implicit allocation of the burden of proof to the party wishing to use the resources to establish that its activities will not damage the environment."[59]

The precautionary principle has its detractors. Reporting on a conference on the principle held at Harvard University in the fall of 2000, *Scientific American* observed, "Critics asserted that the principle's definitions and goals are vague, leaving its application dependent on the regulators in charge at the moment...'If someone had evaluated the risk of fire right after it was invented,' remarked Julian Morris of the Institute of Economic Affairs in London, 'they may well have decided to eat their food raw.'"[60] But such arguments overlook the far more sophisticated tools available to modern society to attempt to scope out possible adverse effects – and overlooks the history of unforeseen effects of technology in the 20th Century. The question is not whether to forestall all technology or human management of natural systems, but whether to move ahead with them only after careful consideration of all foreseeable impacts.

Typical of comments dismissing the public trust doctrine as unacceptably vague in relation to specific statutory construction is a dissent by Justice Mario R. Ramil in a recent Hawaii case upholding the decision of that state's Commission on Water Resource Management to protect in stream water flows by requiring water use applicants to justify their proposed uses in light of the doctrine, which has been engrafted in the Hawaii constitution. A statute setting more specific water use policies, Justice Ramil argued, should take precedence.

"The majority's expansive use of the public trust doctrine in this case, in my view, will create confusion and uncertainty. The public trust doctrine merely imposes an obligation on the State to affirmatively protect and regulate our water resources. The

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[59] *See supra* note 56.
[60] *The New Uncertainty Principle*, 284 Scientific American 18-19 (2001).

doctrine does not provide guidance as to 'how' to protect those waters. That guidance, which is crucial to the decision we reach today, is found only in the Water Code."[61]

Another line of attack on use of the public trust doctrine is that it is simply unable to assist in resolving complex, modern contests over the management of natural resources. In a lengthy review of the doctrine's application beginning in 1970, Richard J. Lazarus likened it to a "patch" used to hold together the emerging fabric of natural resource law, and urged its removal in light of both statutory enactments and the judicial broadening of legal standing to sue that followed the environmental crisis of the 1960s.

"The doctrine amounts to a romantic step backward toward a bygone era at a time when we face modern problems that demand candid and honest debate on the merits, including consideration of current scientific values and the latest scientific information. The complex and pressing resource allocation and environmental protection issues we currently face will continue to tax severely the most concerted societal efforts and the best legal minds...Although perhaps unfortunate, short of a major redirection of this nation's social and economic infrastructure, little, if any room is left in these tasks ahead for the mythopoeism of the public trust doctrine.[62]

Still other skeptics argue that the public trust doctrine is simply a fig leaf behind which government can interfere with private property rights. One critic attacks the application of the doctrine by environmental regulators: "Private property is not held as an indefeasible individual right – it is only held in 'trust' for the public or the community. As simple examples, consider only wetlands regulations and endangered species regulations. Vast tracts of private land have been effectively confiscated by the operation of these two regulations. Individuals still own the land, but their use is now conditioned by a 'public trust.' 'Public trust' has become the new feudal sovereign that conditions and

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[61] In the Matter of the Water Use Permit Applications, Petitions for Interim Instream Flow Standard Amendments, and Petitions for Water Reservations for the Waihole Ditch Combined Contested Case, No. 21309, Appeal from the Commission on Water Resource Management, Case No. CCH-OA95-1, Hawaii Supreme Court, August 22, 2000.

[62] Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 Iowa 1986, p. 715-716.

even extinguishes the right to property."[63] Similarly, writing for the Cato Institute, Allan K. Fitzsimmons argues, "Ecosystem management, then, threatens to radically alter the nature of the relationship between governmental agents and private property owners by expanding the 'public trust' doctrine to justify centrally managed land-use planning."[64]

But in the matter at hand of Great Lakes water transfers, there is simply no reasonable expectation of "private property rights" in the potential sale or ownership of the Lake's waters. They have never been subject to such claims. Further, in light of evolving understanding of the complexity of ecosystems, there is a strong basis for articulating a public ownership interest in natural resources and ecosystems such as the Great Lakes. "The characteristics of dynamic ecosystems complicate the task of safeguarding ecological viability. Decision making authority must be vested in an entity with a frame of reference broader, both spatially and temporally, than may be common among private actors."[65]

As Shafer argues, the public trust doctrine "provides a powerful means for one or more Great Lakes states to enjoin a diversion of Great Lakes waters that would adversely affect public trust resources."[66] Quoting the Michigan Supreme Court in a landmark public trust case, *Collins v. Gerhardt*,[67] he notes that the rights of citizens to fish, swim,

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[63] Edward J. Erlier, *Is Big Brother Moving In?,* remarks at Claremont Institute Constitution Day Conference, September 17, 1999.

[64] Allan K. Fitzsimmons, *Federal Ecosystem Management: A 'Train Wreck' In the Making*, Policy Analysis No. 217, Cato Institute, Oct. 26, 1994.

[65] Alison Rieser, *Ecological Preservation as a Public Property Right: An Emerging Doctrine in Search of a Theory,* 15 Harvard Environmental Law Review 393 (1991).

[66] Chris L. Shafer, *Great Lakes Diversions Revisited: Legal Constraints and Opportunities for State Regulation*, report prepared for the National Wildlife Federation, 43-44 (2000).

[67] 211 N.W. 115, 118 (Mich. 1926).

boat and enjoy public trust waters "are protected by a high, solemn and perpetual trust, which it is the duty of the state to forever maintain."

The doctrine may in fact be Michigan's ace in the hole when it comes to preventing harmful new water transfers – but only if Michigan plays the card wisely.

Chapter Four

Development of New Defenses Against Great Lakes Water Transfers, 1998-2001

An Ontario company, the Nova Group, received a permit in the spring of 1998 from the Ontario Ministry of Water Resources to export the equivalent of up to 50 tankers per year of Lake Superior water to anticipated customers in Asia. The news disturbed citizens across the Great Lakes region, and the company voluntarily surrendered its permit to avoid further adverse publicity. Although the amount of water the company proposed to withdraw from Lake Superior was negligible when compared to the volume of the second largest lake in the world, the permit had the potential to set a precedent that Great Lakes water was a marketable commodity.

Other developments reinforced the widespread concern. In the late 1990s, a Norwegian company obtained a contract to ship water over the ocean in huge fabric bags to Cyprus. A Canadian company planned to export water from a Newfoundland lake to the Middle East by tanker. The province of British Columbia considered marketing water to California.

As Peter H. Gleick noted in *Scientific American*, "The idea that a planet with a surface covered mostly by water could be facing a water shortage seems incredible. Yet 97 percent of the world's water is too salty for human consumption or crops, and much of the rest is out of reach in deep groundwater or in glaciers and ice caps."[68]

And, aware of ever-growing world populations and growing water scarcity, citizens of the region began to worry about increasing demands on freshwater:

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[68] Peter H. Gleick, *Making Every Drop Count*, 284 Scientific American, 45 (2001).

"Our seemingly limitless supply of water is about to confront a nearly limitless demand. There is no more water on the Earth now than there was 2,000 years ago when the population was less than 3 percent of its current size. By 2025, 35 percent of the world's population is predicted to face chronic water shortages...As demand for freshwater grows, governments and corporations are considering the commodification of water – buying, selling, shipping and bottling," an environmentalist warned.[69]

Hurrying to develop a coherent policy, the U.S. and Canadian governments asked the International Joint Commission to study legal and natural resource issues and make recommendations on ways to conserve water and halt harmful water diversions and other exports in the 21st Century. The IJC issued an interim report in the fall of 1999 and a final report in February, 2000 that outlined the state of scientific knowledge of the Great Lakes and proposed strategies to conserve their waters.[70]

The outrage of the region after the Nova Group controversy in 1998 was reminiscent of the anger seven states had felt at Chicago's original taking of Great Lakes water until the 1930 Supreme Court order. "Great Lakes water will never be for sale," thundered Governor John Engler in his 2000 State of the State message. Meanwhile, Engler and governors of the other seven Great Lakes states set about refashioning the 1985 Great Lakes Charter and bringing it up to date to reflect both political and legal realities.

Responding to the Nova Group permit on its own, the Council of Great Lakes Governors commissioned an analysis of the legal issues involved in defending the Great Lakes from large-scale water withdrawals.[71] Submitted to the governors in the spring of 1999, the analysis echoed the concern of the governors and other experts about the

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[69] Detroit Free Press, *Great Lakes for sale? Only conservation ethic can prevent it*, by Tim Eder, director, Great Lakes Office, National Wildlife Federation, November 28, 1999.
[70] The final IJC report was entitled *Protection of the Waters of the Great Lakes: Final Report to the Governments of Canada and the United States, and dated* February 22, 2000.

potential harm to be caused by large-scale water withdrawals, and made the following findings and recommendations for the consideration of the chief executives:

- "...[T]he ability of any authority – state provincial, federal or binational – to impose outright prohibitions on water exports is constrained by U.S. and Canadian constitutional and trade law."
- "...[E]xisting authorities are inadequate to the task of comprehensively or effectively regulating water withdrawals – and in particular water exports."
- "...[H]owever it is adopted, a commonly applied, resource-wide decision making standard that ensures benefit to the waters and water-dependent resources of the Great Lakes Basin, would most effectively promote the coals of conservation and sustainable use."[72]

Shortly after submittal of this paper, representatives of the Great Lakes states began crafting revisions to the 1985 Great Lakes Charter based on its findings and recommendations. But some raised concerns about the legal analysis. One expert concluded that the analysis "presents a worst-case scenario of our region's ability to respond to any new diversion proposals and appears to be written by individuals who are not sensitive to the history and legal doctrines that govern use of Great Lakes water."[73]

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[71] James S. Lochhead, Chad G. Asarch, Milos Birutciski, Patrick J. Monahan, Gray E. Taylor, Pieter M. (Pete) Schenkkan, *Report to the Council of Great Lakes Governors: Governing the Withdrawal of Water from the Great Lakes,* May 18, 1999.
[72] *See supra* Lochhead et al at 4.
[73] Chris A. Shafer, Associate Professor, Thomas M. Cooley Law School to G. Tracy Mehan III, Director, Office of the Great Lakes, Michigan Department of Environmental Quality, July 7, 1999.

The next sections of this thesis address the legal arguments made on behalf of the Governors and analyzes their soundness as a defense against large-scale water withdrawals from the Basin.

Water Diversion and the Interstate Commerce Clause

The 1999 legal analysis submitted to the Governors (hereafter referred to as the Governors' analysis) extensively treats the relationship of the interstate commerce clause (Article I, Section 8 of the U.S. Constitution)[74] to restrictions on export of water from the Great Lakes Basin. Its fundamental contention is that the commerce clause of the Constitution bars the states from simply prohibiting water diversion.

> "Some might argue that each Great Lakes State should 'just say no' to the export of water out of the Basin. While politically popular, the concept would not be legally sustainable, and, as a practical matter, a 'just say no' approach by any single jurisdiction would not prohibit exports in other jurisdictions. In addition, a state law embargo on exports of Great Lakes water would not survive a challenge under the commerce clause of the United States Constitution."[75]

The commerce clause gives Congress the affirmative power to regulate commerce with foreign nations and among the states, providing for federal supremacy over conflicting state laws. But the Supreme Court has found that even if Congress has not exercised the affirmative power, the dormant aspect of its commerce clause power prevents a state from advancing its own interests by curtailing the movement of articles of commerce into or out of the state.[76]

The Governors' analysis argues, "...[T]he basic thrust of the dormant commerce clause is that a state may not discriminate against interstate commerce to advance the economic interests of the state or its citizens. If it does not specifically discriminate

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[74] U.S. Const. Art I § 8: "The Congress shall have power to...regulate commerce with foreign nations, and among the several states, and with the Indian tribes;..."

against interstate commerce, a state may evenhandedly regulate to advance a genuine, legitimate local purpose even if such regulation has incidental effects on interstate commerce. Such effects must be on balance reasonable. In particular, the state needs to evenhandedly advance its legitimate local interests using the approach that is least burdensome on interstate commerce." This summary is consistent with prevailing legal opinion on the subject.

The Governor's analysis closely scrutinizes three federal court rulings that applied dormant commerce clause standards to state restrictions on water transfers. These include *Sporhase v. Nebraska*,[77] *City of El Paso v. Reynolds*, also known as "El Paso I"[78]; and *City of El Paso v. Reynolds*, also known as "El Paso II."[79]

The *Sporhase* case involved a Nebraska law that barred the transfer of water drawn from that state's aquifers across state lines unless the receiving state provided for reciprocal access to its aquifers. The U.S. Supreme Court struck down the law using two general commerce clause standards.

First, the Court reasoned, a state cannot restrict interstate commerce for reasons of economic protectionism – that is, to promote its economy. The restriction must be associated with a legitimate local purpose, and the state bears the burden of establishing a close link between the burden on interstate commerce and the law's local purpose. The Nebraska law at issue in *Sporhase*, the Court ruled, failed to pass this test because it did not appear "narrowly tailored to the conservation and preservation rationale."

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[75] *See supra* Lochhead et al at 4.
[76] E.g., *Fort Gratiot Landfill v. Michigan Department of Natural Resources,* 504 U.S. 353, 359 (1992).
[77] 458 U.S. 941 (1982).
[78] 563 F. Supp 39 (D. N.M. 1983).
[79] 597 F. Supp. 694 (D. N.M. 1984).

Second, the Court held, if a state is evenhandedly advancing a genuinely non-protectionist state interest in restricting water transfers by applying the same restriction to both in-state and out-of-state uses, the constitutionality of the law hinges on whether the incidental effects on interstate commerce are reasonable. The Court upheld three elements of the Nebraska law that it said served the valid public purpose of conserving scarce groundwater.

In *El Paso I*, Texas contested a New Mexico law prohibiting the interstate transfer of groundwater. Using the standards set forth in *Sporhase*, the federal district court struck down the New Mexico statute. New Mexico's legitimate efforts to conserve its water resources did not justify an embargo, the Court ruled, particularly in light of the fact that New Mexico faced no imminent or foreseeable shortage of water. The lack of a meaningful water shortage and water conservation strategies in New Mexico, the Court determined, meant the purpose of the law was chiefly to maximize in-state use of water resources, a form of economic protectionism.

In *El Paso II*, the federal district court considered a subsequent New Mexico permitting statute that was enacted while *El Paso I* was pending on appeal. The new law provided authority for the state to deny proposed water withdrawals if they were found contrary to the conservation of water within the state, or detrimental to the state's public welfare. The law also imposed a two-year moratorium on new appropriations of groundwater from the aquifers to which El Paso sought access.

This statute fared little better than the first. The Court struck down the moratorium because it explicitly sought to discriminate against El Paso. The Court also negated a provision of the law that applied new permitting criteria to domestic wells and

transfer wells, but not to intrastate transfers of water. The Court found that any denial of a permit to an out-of-state water user under the statute would be unconstitutional if the denial was made "to limit exports in order to minimize in-state shortages for local economic benefit."

The Governors' analysis argues, "Great Lakes Basin water is even more likely than Nebraska or New Mexico groundwater to be held to be an article of commerce subject to the commerce clause...[I]t is equally clear that the interest of the Great Lakes States in this resource does not rise to the level necessary to justify a ban or facially discriminatory restriction on the interstate or out-of-basin export of water. The analysis applied in *Sporhase* and *El Paso* I and II would apply to any attempted restriction. Therefore, regulation of water withdrawals by the Great Lakes states must be evenhanded. It must apply equally to in and out-of-basin uses. Any such regulation must also be tied to a legitimate local purpose, that of preserving the water resource, and promoting its long-term health and sustainable use."[80]

The Governors' analysis, however, overlooks several relevant cases and considerations. In the 1986 *Maine v. Taylor* decision[81], the Supreme Court upheld an outright ban on the importation of foreign baitfish due to the risk of disrupting the state's natural resources through the introduction of an exotic species, and because there was no less discriminatory means of protecting the environment. "By analogy, a ban on diversions of Great Lakes water could be defended on the basis that it is needed to protect the Great Lakes ecology, especially fisheries and wetland habitat, and that there is no less discriminatory method available," argues Cooley Law School Associate Professor Chris

[80] *Report to the Council of Great Lakes Governors*, p. 19.
[81] 477 U.S. 131, 106 S. Ct. 2440, 91 L. Ed. 2d 110.

A. Shafer.[82] This points toward an argument that the fragility of the system makes it vulnerable to unforeseen disruptions in the event of major new consumptive uses and diversions, an argument based as much on the precautionary principle as on scientific uncertainties themselves.

In another paper, Shafer observes: "The lesson seems clear from *Taylor* that with the proper scientific and ecological justification, stringent state regulations, up to and including bans on certain activities, will be upheld provided the state applies the regulation in an evenhanded manner and less intrusive measures are not reasonably available."

Shafer goes on to acknowledge that the argument advanced in *Maine v. Taylor* may not by itself be sufficient to withstand a concerted interstate commerce challenge, "but the report should in fairness advise the governors of all reasonable legal arguments, and not paint the situation in the most negative possible light." That the report does not do so is a disservice. By foreclosing discussion of the *Taylor* ruling, the associated Supreme Court ruling, and the public trust doctrine itself, the paper shapes debate toward the apparent desired end of the authors – to produce a water regulatory regime similar to that found in states governed by the prior appropriation doctrine.

Equally important, Shafer argues, the Governors' analysis rests heavily on three Supreme Court cases that concern groundwater, not surface water. There are significant differences in the legal treatment of these resources. The nature of groundwater – flowing sometimes only inches per year, and lying beneath the earth's surface like minerals – has lent itself to private ownership. It has therefore been traditionally regarded

[82] Chris A. Shafer to G. Tracy Mehan III, Director, Office of the Great Lakes, Michigan Department of Environmental Quality, July 7, 1999.

as an article of commerce, while surface water, flowing rapidly between and among parcels of privately held land, has not.

The Governors' analysis does note the Supreme Court's finding in *Sporhase* that "there is more to state ownership or regulation of water than there is to state ownership or regulation of other natural resources, because water is essential for human survival and other resources are not."[83] In the Court's words, it would be "reluctant to condemn as unreasonable [under the commerce clause] measures taken by a state to conserve and preserve for its own citizens this vital resource in times of shortage."

As Shafer suggests, evidence that water exports or diversions could jeopardize the ecology of the Lakes might carry some weight with the courts. Regrettably, however, little research has been done to document these effects. A technical workshop hosted by the U.S. Army Corps of Engineers in 1999 is the most recent effort to summarize what is known and what remains to be known about such effects. The workshop participants concluded that four of ten Great Lakes physical habitats evaluated would likely be significantly affected by a lowering of water level such as that triggered by diversions or exports. But they also concluded, "The magnitude of habitat loss or gain cannot be determined without more precise information on potential water level reductions and the degree of slope lakeward of the habitats...A quantitative assessment of the effects of lake level changes is presently limited by the qualitative nature of knowledge on biological responses to small scale habitat change." The report recommended considerable new research.[84]

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[83] *Report to the Council of Great Lakes Governors*, p. 17.

[84] U.S. Army Engineer Research and Development Center, Waterways Experiment Station, Environmental Laboratory, Vicksburg, MS; *Ecological Effects of Water Level Reductions in the Great Lakes Basin: Report on a Technical Workshop, December 16-17, 1999.*

The Governors' analysis also overlooks considerable case law that suggests Great Lakes states may in fact be able to regulate, if not prohibit, certain activities adverse to the public health, safety and welfare. Shafer points out that Michigan has successfully withstood legal attack in the U.S. Supreme Court on a local air pollution ordinance applied to a Great Lakes shipper and in the U.S. Court of Appeals on a water control pollution regulation that required sanitary waste holding tanks on all commercial vessels navigating through Michigan's Great Lakes waters. In both cases, the court ruled that Michigan's rules were valid because they served a legitimate public purpose and were applied in an evenhanded manner. Shafer contends that a Michigan water use permitting statute would "in all likelihood be found to be constitutionally valid."

But how far can a state go in restricting interstate commerce to serve a legitimate public purpose? And can Michigan impose a prohibition, on water sales and exports, at least on a temporary basis, as long as it caps or reduces its own water use?

Environmental advocates have argued that the public trust doctrine gives states broad latitude to prevent water exports. Cameron Davis, the Executive Director of the Lake Michigan Federation, urged the IJC to give greater weight to the doctrine in drafting its report on water levels. "...[T]he public trust doctrine says that resources that belong to the people of a state cannot be alienated for private use. We've seen cases that apply to the public trust doctrine, probably most famously to submerged lands, lands that run underneath navigable waterways, but the interim [IJC] report doesn't take a look at how the public trust doctrine might apply in terms of water that belongs to the various states."[85]

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[85] Cameron Davis, remarks at International Joint Commission 1999 Great Lakes Water Quality Forum, Milwaukee, Wisconsin, September 24-26, 1999.

In fact, as will be discussed, there is significant legal support for at least a temporary moratorium on major new water withdrawals or consumptive uses in light of the public trust doctrine.

Water Diversion and State Authority

The Governors' analysis barely touches on state authority to limit or prohibit water diversions and bulk exports, other than through discussion of the interstate commerce clause. However, while the analysis suggests that international trade agreements and U.S. federal jurisdiction trump most state actions, Governor Engler has disputed the need for the federal government to authorize or consent to actions taken by the states to defend the Great Lakes. Under the reasoning of the Governors' analysis, it is almost inevitable that Congress would be required to do so.

Briefly acknowledging the public trust doctrine and the *Illinois Central* case, the analysis also notes that water use in the region is founded on the riparian doctrine of reasonable use. It says states "have broad regulatory authorities and have the obligation to exercise those authorities pursuant to the trust." But, the analysis says, that authority is subject to important limitations, including the Congressional power over navigation, foreign relations, natural resources and interstate apportionment.

The analysis also questions the state role where Congress has explicitly authorized one. The authority granted to Great Lakes Governors to veto diversions by the Water Resources Development Act of 1986 (WRDA), it says, would probably not survive attack in the event of a proposed export. WRDA violates the nondelegation doctrine, the dormant aspect of the commerce clause of the U.S. Constitution, does not satisfy the compact clause of the Constitution, and violates the due process clause of the

Constitution, according to the analysis. The following paragraphs briefly address each of these points in turn.

The nondelegation doctrine. The analysis contends that WRDA delegates Congressional power over interstate and foreign commerce to the Governors of the Great Lakes states without providing any standards for the exercise of that power. In the 1928 decision, *J.W. Hampton, Jr. & Co. v. United States*, the U.S. Supreme Court held that such a delegation of Congressional power must be accompanied by standards and rules of conduct provided by Congress: "an intelligible principle to which the person or body authorized to [exercise the delegated authority] is directed to perform."

But until a lower court decision challenging a U.S. EPA rulemaking under the Clean Air Act, it appeared the constitutionality of broad delegations of power to federal administrative agencies was settled.[86] Justice Antonin Scalia noted that "[b]road delegation...,is the hallmark of the modern administrative state."[87] Further, the nondelegation doctrine has almost never been applied to delegation of powers to the states; rather, it concerns delegation by Congress of powers to "coordinate branches" of the federal government. Finally, WRDA does contain an "intelligible principle" guiding decision making: "the Great Lakes need to be carefully managed and protected to meet current and future needs within the Great Lakes basin and Canadian provinces."

WRDA and the dormant aspect of the commerce clause. The Governors' analysis contends that because WRDA "does not clearly and unambiguously indicate a

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[86] On February 27, 2001, the U.S. Supreme Court turned back a challenge to EPA's setting of health-based standards for air pollutants under the Clean Air Act. Plaintiffs challenged the standards on the grounds that Congress impermissibly delegated its decision-making authority to the EPA under the Act. The decision was rendered in *Whitman, Administrator of Environmental Protection Agency et al v. American Trucking Associations et al.*

[87] *Judicial Deference to Administrative Interpretations of Law,* Antonin Scalia, 1989 Duke Law Journal 511 (1989).

Congressional intent and policy," it would not withstand a challenge under the dormant aspect of the commerce clause. The central argument advanced by the analysis is that WRDA does not treat in-Basin uses and out-of-Basin diversions equally, and is therefore facially discriminatory. But this contention is undermined by the fact that an estimated 95 per cent of all water withdrawn for in-Basin uses is returned to the Great Lakes system, whereas water taken for out-of-Basin diversions or exports is almost never returned. The difference in impacts on the ecosystem justifies differing treatment.

The Governors' analysis also contends that WRDA is not clear in its transfer of decision making authority to the states. But the fact is that WRDA does *not* transfer such decision making authority; it expresses the Congressional power under the commerce clause to authorize a specific type of state regulation. In an 1891 decision authorizing states to restrict packaged liquor, the U.S. Supreme Court found that Congress was in effect withdrawing its federal commerce power in that field of regulation in order to permit states to regulate.[88] Such enactments in effect render states invulnerable to constitutional attack under the commerce clause.

WRDA and due process. The Governors' analysis says the lack of a procedure or standards in WRDA for the denial of an out-of-basin diversion or export proposal renders it vulnerable to both a substantive and procedural due process attack under the Fifth and Fourteenth Amendments to the U.S. Constitution. This argument has some merit.

But the analysis argues that "a permit or a legitimate expectation of a right to a permit to withdraw and use water constitutes a protected interest under the due process clause." As Shafer notes, this argument "looks like an attempt to apply western water law concepts under the Appropriation Doctrine to the Great Lakes." The region's historic

reliance on the riparian doctrine and the public trust doctrine would make it virtually impossible for an applicant for a water withdrawal to assert a legitimate expectation of a property interest in taking the water.

A more serious argument is that because WRDA establishes no procedure or standards for the consideration of proposed water diversions, it violates procedural due process requirements. "WRDA does not provide for any notice or hearing either before or after the exercise of an out-of-basin diversion," the analysis observes. "As a result, there is a strong argument that the statute violates the procedural component of the due process clause and is unconstitutional on its face." To address these concerns, environmental interest groups and Michigan legislators have proposed legislation since 1997 that would establish public notice and comment opportunities.[89]

Substantive due process concerns are even more significant. WRDA transferred decision making on water diversions to the Great Lakes states but did not establish a standard, which the states should use in deciding whether to veto diversions. The new proposed Annex 2001 is in part designed to answer this concern. The states and environmental interest groups agree that the states must develop some consistent basis for decision making on proposed new or increased water uses from the Basin. This deficiency is proposed to be cured by the new proposal advanced by the Great Lakes Governors.

The 2000-2001 Great Lakes Governors Proposal

Spurred by the 1998 Nova Group proposal and by rapidly declining Great Lakes water levels in 1999-2000, the Council of Great Lakes Governors moved swiftly to

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[88] *Wilkerson v. Rahrer,* 140 U.S. 545 (1891).

develop a new standard to guide decision making on future proposals to withdraw water from the Great Lakes. The legal analysis commissioned by the Governors heavily influenced the proposal.

Proposing an annex to the 1985 Great Lakes Charter, the Governors said that no new or increased withdrawals of Great Lakes water should be allowed unless the proponent can demonstrate:

- An "improvement to the waters and water-dependent natural resources of the Great Lakes Basin. This means that the individual, cumulative, immediate and long-term adverse impacts of the withdrawal are outweighed by the beneficial, restorative impacts and associated enhancement measures."
- The withdrawal, individually or cumulatively, "must not cause significant adverse impact to the quantity or quality of the Great Lakes Basin waters and resources dependent on them.
- The proponent of the project implements all reasonable and appropriate water conservation measures; and
- The project complies with all other applicable laws.

The key to the proposal, known as Annex 2001, was the new standard applied to water withdrawals – that they must result in an "improvement" to the waters and water-dependent resources of the Great Lakes Basin. "This new standard is designed to

[89] See, for example, State Senate Bill 668, sponsored by State Senator Joe Young, Jr., 1997-1998 legislative session; State Senate Bill 319, sponsored by State Senator Loren Bennett, 1999-2000 legislative session.

withstand constitutional and trade law challenges because it is based on a resource-based rationale: resource conservation and improvement," said an architect of the plan.[90]

"Reaching a consensus to manage the waters of the Great Lakes on the basis of actually improving these resources – not presiding over their gradual degradation – meets the challenge of a growing, thriving society seeking to reconcile conservation and economic growth," said Governor John Engler in a press release. "In the future, water projects will be approved only if they do more good than harm."[91]

The December 14, 2000 draft of Annex 2001 added several features to the outline originally revealed in the summer of 2000:

- The Governors of the Great Lakes States and Premiers of the Great Lakes Provinces agreed to embody the basic provisions in a "Basin-wide binding agreement," such as an interstate compact, within 3 years of approval of the Annex.
- The states and provinces called for a *de minimis* exception in the to-be-negotiated binding agreement allowing minor water uses to be exempt from the decision making standard in the agreement.
- The new resource-based standard would be implemented immediately, pending the new binding agreement, pursuant to WRDA.
- An immediate *de minimis* exception would be established under WRDA of any withdrawal resulting in a loss of less than one million gallons of water per day on average during a 30-day period.

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[90] G. Tracy Mehan III, *Great Lakes Water Management: Governors Work Toward Common Standard*, Michigan Forward: A Publication of the Michigan Chamber of Commerce, 8 (December 2000).
[91] Press Release, Executive Office of the Governor, *Governor Engler Announces New Standard for Protection of Great Lakes*, June 19, 2000.

- The parties would develop "a decision support system" that ensures the best information is available in decision making on water withdrawals.

The Governors' Annex 2001 proposal won generally favorable reviews from constituent groups and the press.

"Gov. John Engler has taken a huge step forward in protecting the Great Lakes from the threat of water diversions, leading the other Great Lakes governors and premiers toward new standards for requests to take water," said the *Detroit Free Press.* "Reports like this winter's International Joint Commission study have made it clear that Great Lakes residents can't hold outside requests for water to a standard higher than they themselves maintain. Trade treaties and interstate commerce laws leave no room for that kind of protectionism."[92]

The *Grand Rapids Press* editorialized:

"Mr. Engler has led the region's governors and the premiers of Ontario and Quebec in drafting proposed new safeguards against water withdrawals. The standards are designed to head off constitutional and international trade-law challenges that could arise, legal experts say, from refusals by governors and ministers to approve exports of Great Lakes water."[93]

Annex 2001 assumed new urgency with the release of census data late in 2000 showing a continued population shift from the Great Lakes and northeastern states to the Sunbelt. Michigan will lose one of its U.S. House seats as a result of the shift, and the Great Lakes states overall will lose nine. The Detroit Free Press noted that a powerful Texas member of Congress had joked about coveting Great Lakes water.

"Texas Congressman Dick Armey, during a visit last year to northern Michigan to stump for a candidate, looked adoringly at the waters of Grand Traverse Bay. Texas, which experienced months of drought last year, could use 'some of that water of yours,' Armey told a luncheon crowd. Although the Republican leader was joking, those who worry about water from the Great Lakes being shipped or sent by pipeline out of the region weren't laughing."[94]

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[92] *Detroit Free Press,* "Great Lakes: Michigan must continue to lead the way in strengthening protections, June 25, 2000 at 2E.

[93] *Grand Rapids Press,* "Engler, Congressional Efforts Will Add to Protection of Great Lakes," July 16, 2000.

[94] *Detroit Free Press*, "Census shifts power over water: States race to stave off siphoning of Great Lakes, January 12, 2001.

Noting that Michigan Governor Engler was scheduled to become chairman of the National Governors Association and held other important national and regional positions of influence, the *Grand Rapids Press* urged him on: "He will need all of that muscle to unite the Great Lakes states and Canadian provinces behind stricter water-withdrawal standards and to win congressional approval of them....[T]he tide of the census change is a real threat. Mr. Engler must continue to keep the Great Lakes states ahead of it."[95]

While the rhetoric of governors and the news media concentrated on the potential for transfers of water to Asia or the far-off Southwest or Midwestern states whose population growth outstrips available water resources, water demand projections submitted to the IJC for the next 20 years suggested an entirely different scenario. The *Great Lakes states themselves*, according to the IJC-commissioned studies, will place an increasing demand on the resource. In the most likely scenario projected by the studies, water withdrawals in the U.S. section of Great Lakes Basin itself are projected to rise just 5.58 percent by the year 2025, but consumption of water is expected to rise 27.05 percent. Study authors explain that this is the likely result of increasing use of Great Lakes water in manufacturing, and to a lesser extent, to support municipal water supply.[96]

But the IJC has even more to say that challenges the conventional wisdom about threats to the hydrologic integrity of the Great Lakes system.

"In the short run, pressures for small removals via diversion or pipeline are most likely to come from growing communities in the United States just outside the Great Lakes Basin divide where there are shortages of water and available water is of poor quality. The cost of building the structures needed to support such diversions would be relatively small by comparison to the cost of building structures to move water vast distances. Population distribution suggests that several communities that straddle or are

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[95] *Grand Rapids Press,* "Legal armor for the lakes: Engler can use national position to shore up Great Lakes defenses,", January 4, 2001.

[96] Donald Tate and Geoff Harris, GeoEconomics Associates, for the International Joint Commission, *Water Demands in the United States Section of the Great Lakes Basin, 1985-2020*, 50 (March 2000).

near the Great Lakes Basin divide, particularly communities in Ohio, Indiana, and Wisconsin, may look to the Great Lakes for a secure source of municipal and industrial water supplies in the future."[97]

The Commission's observation is borne out by recent history. Since 1988, four Great Lakes water diversions have been proposed. All came from Great Lakes states. Three were proposed in order to provide water supplies either to support population growth or to replace contaminated supplies. Two – at Pleasant Prairie, Wisconsin and Akron, Ohio – were approved. The third, at Lowell, Indiana, was rejected. The fourth proposal came from the State of Illinois during an unusual drought in the summer of 1988. The State proposed tripling on a temporary basis the existing Chicago diversion to help increase flows on the Illinois and Mississippi Rivers and float barge traffic. The diversion was designed for a flow of 10,000 cubic feet per second (cfs) and infrastructure remains in place for a diversion of as much as 8,700 cfs, compared to the Supreme Court-ordered limit of 3,200 cfs. The Great Lakes states rejected the 1988 proposal to increase the Chicago diversion, and the end of the drought soon terminated discussion of the proposal.

Thus, while public concern (at least in Michigan) and the consensus of Great Lakes public officials focuses on long-distance transfers or bulk exports of Great Lakes water, the most likely short-term application of Annex 2001, if adopted, is to diversions and consumptive uses proposed by the Great Lakes states themselves.

For Michigan, the question then becomes whether the Annex is sufficiently protective to assure that other Great Lakes do not exploit the water resources of the Basin – particularly in a way that undermines efforts to stop long-distance transfers at a later date.

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[97] See supra note 5, *Protection of the Waters of the Great Lakes*, at 17.

In this regard, the Annex contains three troubling flaws:

- While the immediate proposed *de minimis* standard of a one million gallon per day average is unlikely to cause significant damage to the Great Lakes ecosystem and is conditioned on a public health and welfare necessity, the open issue of a permanent *de minimis* standard suggests a desire on the part of some Great Lakes states to build an exemption for uses that will support population growth (or "urban sprawl") just outside the hydrologic boundaries of the Basin. Such relatively small diversions may be what is needed to supplement existing supplies in fast-growing urban areas.[98]
- For any withdrawals proposed under Annex 2001 and subsequent binding agreements, it is unclear whether the applicant or the regulator will have the burden of proving or disproving that the withdrawal will "cause significant adverse impact to the quantity or quality" of the Great Lakes. In light of current scientific uncertainties regarding the Great Lakes ecosystem, it will be difficult for regulators to meet this burden of proof.
- New or increased withdrawals may be approved if they result in an "improvement to the Waters and Water-Dependent Natural Resources of the Great Lakes Basin." The proposed Annex 2001 defines improvement

[98] In its critique of Annex 2001, the regional environmental group Great Lakes United noted that a de minimis standard "is unwise environmentally because it takes no account of the cumulative damage such proposals might cause over many years...The conservation elements must be improved...Annex 2001 calls for 'reasonable and appropriate' conservation, a phrase that can be interpreted very loosely. It would be better to implement 'maximum achievable' conservation, a legislative phrase that more or less means 'your best effort.'" See "Water Preservation: Historic Great Lakes plan needs strengthening on some key points," *Detroit Free Press*, Reg Gilbert, Great Lakes United, February 13, 2001, page 7A.

> to include "enhancement" or "restoration measures" undertaken by or on behalf of the withdrawer. The definition suggests that enhancement of resources not directly connected to the local ecosystem may be permitted – perhaps the enhancement or restoration of fish, wildlife, or plant communities far removed from the use at hand. This would permit significant adverse local impacts on the waters and water-dependent natural resources.

Significantly, the Annex does not include a standard recommended by the IJC for major review of water transfers out of the Basin – that there is "no net loss to the area from which the water is taken and, in any event, there is no greater than a 5 percent loss (the average loss of all consumptive uses within the Great Lakes Basin)..." The IJC recommendation proposes to treat out-of-Basin users in a fashion comparable to in-Basin users by establishing a comparable tolerable level of water loss. But Annex 2001 conceivably would allow uses that result in much greater percentage losses, so long as the "resource improvement" standard is also met and conservation measures are implemented as part of the project.

Michigan's interests may well diverge from those of the remaining Great Lakes states as near-term water withdrawals are proposed. As I will discuss in the next section, the state's ability to contest such withdrawals and defend its interests in the Great Lakes may well depend not only on amendments to the draft Annex, but also its ability to demonstrate care and stewardship in the conservation of water resources. And that ability is questionable at best.

In a related effort coordinated by Michigan's U.S. Senators, the Congress amended WRDA in 2000 to clarify the 1986 language pertaining to the right of Governors to veto diversions. The amendments accomplished two tasks. First, they clarified that the Governors' veto power extends to exports as well as diversions. Second, the amendments encouraged the states to pursue the development of standards for the review of water withdrawal and export proposals, relying on a "resource improvement" approach.

> "...[T]his language uses the phrase 'resource improvement' as one principle in encouraging the states to develop a common conservation standard. This phrase is intended to embody the concept of improvement of the quality of the natural resource, not the development of the resource."[99]

While generally supportive of the approach taken by the Governors, leading Great Lakes environmental organizations challenged the chief executives to go farther. In the fall of 2000, expressing alarm that the Governors had yet to adopt the new standard for water withdrawals formally, they complained that the governments seemed to be shrinking from the tough measures needed to build a defense against the withdrawals. They noted that the U.S. and Canada use water at a rate twice per capita that of Europe. Without aggressive water conservation efforts, they contended, the region was raising the risk of losing battles to stop diversions and bulk exports. "Legal opinions commissioned by the states have said that making water conservation and environmental protection the basis of the region's water use law would dramatically strengthen the area's ability to defend against future export and diversion proposals. Otherwise, international trade and domestic constitutional law might limit what state and provincial governments can do to

[99] *Congressional Record*, October 31, 2000, S11406.

prevent such projects."[100] The groups released a plan, *Water Use and Ecosystem Restoration: An Agenda for the Great Lakes and St. Lawrence River Basin.* It called for a regional water conservation strategy; a ban on transfers of water between the watersheds of the individual Great Lakes; a moratorium on new or increased water uses in the Great Lakes and St. Lawrence Basin; increased monitoring and research on the water system and the life it supports; increased public participation in water resources decision making; and a legal guarantee of every individual's access to water for the basic human needs of drinking, cooking, and bathing.

But the environmental groups themselves shrank from their earlier position of urging closer attention to the public trust doctrine. While continuing to urge a moratorium on new water uses until the Annex was fully in place, the groups abandoned the public trust doctrine as the primary basis for Great Lakes water policy. Agreeing with the Governors' analysis that the doctrine would not support a permanent ban on diversions and bulk exports, they support the recommendation for a water use permitting law in all the states, including Michigan. They acknowledged that a prohibition or embargo was not likely to withstand attack under either the interstate commerce clause or international trade agreements.[101]

But the full scope and power of the public trust doctrine has not been seriously examined during the latest debates over Great Lakes water diversions and bulk exports. As earlier discussed, the Annex and supporting documents virtually ignore the public trust doctrine, perhaps forfeiting an important opportunity for Michigan and its neighbors

[100] Press release, Great Lakes United, the National Wildlife Federation Great Lakes Resource Center, the Canadian Environmental Law Association, the Lake Michigan Federation, and Strategies StLaurent, "Concerned Groups Challenge Governments on Export and Diversion of Great Lakes Water," December 5, 2000.

to withstand diversions and consumptive uses. It may, ironically, be the federal government that will step in if the states fail to exercise their public trust responsibilities.

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[101] Great Lakes United et al, *Water Use and Ecosystem Restoration: An Agenda for the Great Lakes and St. Lawrence River Basin*, December 5, 2000.

Part Five

Federal vs. State Powers
In Managing and Protecting the Great Lakes

At the dawn of the nation, the new federal government held title to the submerged lands of rivers and lakes in trust for future states upon their admission to the Union. The process by which states took title became the Equal Footing Doctrine. Simply said, this doctrine holds that states took ownership and became trustees for submerged lands upon their admission to the Union, just as the original 13 states had acquired title. Since the admission of Tennessee in 1796, Congress has included in each State's act of admission a clause providing that the State enters the Union "'on an equal footing with the original States in all respects whatever."

Under the Submerged Lands Act of 1947, the U.S. government has relinquished all right, title and interest to bottomlands beneath ocean or Great Lake waters. Case law since that date consistently upholds the pre-eminent role of states in exercising jurisdiction over submerged lands within their borders. For example, in *North Dakota ex rel. Board of University and School Lands vs. Andrus*, a district court held that the purpose of the 1947 law was "to turn the matter of issuing oil and gas leases to the beds of navigable waters over to the [states] once and for all."[102]

But this does not eject the federal government from any role in governance of the waters above these bottomlands. The federal government has an interest in the Lakes, like all navigable waters, to ensure their control and use for purposes of commerce, navigation, national defense and international affairs. This interest reaches back to the

[102] *Andrus*, 506 F. Supp. At 26.

Northwest Ordinance of 1787, which began to shape the development of what would become the upper Great Lakes states. The act reads in part: "The navigable waters leading into the Mississippi and St. Lawrence, and the carrying places between the same, shall be common highways and forever free, as well to the inhabitants of the said territory as to the citizens of the United States, and those of any other States that may be admitted into the confederacy, without any tax, impost, or duty therefore."

Further codified in the 1899 Rivers and Harbors Act, this federal interest was exercised in the mid-20th Century to regulate pollutant discharges (prior to the enactment of environmental statutes expressly limiting pollution). The U.S. Army Corps of Engineers has recently attempted to assert jurisdiction under the same statute over proposed directional oil drilling beneath Great Lakes bottomlands, noting that the Act requires a permit for "work under or over a navigable water of the United States." Congress has explicitly assigned the Corps a role in regulating discharges of dredge and fill material into navigable waters of the United States under Section 404 of the Clean Water Act.

Jensen argues that the federal government may properly assert a role in defending bottomlands (and the waters above them) from harm caused by state leasing or regulatory actions.[103] He reasons that the obligations of the public trust doctrine supersede statutory law and repose authority in that level of government which seeks to enforce its paramount value that certain lands and the waters over them are inalienable from the public. "When the State of Michigan authorizes the use of public trust property that is not in the best interests of all citizens, the federal government must step in as a check on what

[103] Larry R. Jensen, *Ensuring the Purity of the Great Lakes: A Case for Federal Intervention in the Directional Drilling Process*, 1998 Detroit College of Law Review, 6 (1998).

is essentially local environmental policy at the state level," he writes. "...[J]urisdiction should reside with the party who has demonstrated a clear commitment to the public without any possibility of any undue influence in the decision making process." He argues that jurisdiction is then best decided in a court of law.

The issue of federal involvement is a sensitive one. In the summer of 2000, Governor Engler and members of Michigan's Congressional delegation squared off against U.S. Rep. Bart Stupak, who represents the Upper Peninsula and several counties in northern lower Michigan, regarding legislation giving explicit approval to the Lakes' states efforts to protect the resource from diversions and bulk exports. Engler and Republican allies argued that the states should exercise the pre-eminent role in setting policy and law; Stupak argued that Congress could not abdicate its role, but could consent to and concur in state efforts. The Republican view won general editorial praise:

> "For instance, Rep. Bart Stupak, D-Menominee, last year proposed legislation to outlaw the sale of Great Lakes water without federal permission. But congressional conservatives such as Texas Rep. Dick Armey[104] wisely defeated the legislation for fear that, precisely because of the emerging congressional arithmetic, such federal say would likely lead to a diversion – not preservation – of Great Lakes waters down the road."[105]

Trying to bridge the divide, noted environmental attorney James Olson argued that the legislation should explicitly reference the state's public trust responsibilities. Said Olson, "The inclusion of public trust principles within the standards directive of the offered amendment to WRDA 2000[106] would affirm the federal Congressional role of assuring that the title to the waters and bottomlands granted to, and public trust imposed on, the Great Lakes states on their admission to the Union is protected. In other words,

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[104] Armey was quoted as coveting the waters of the Great Lakes himself in a summer 2000 visit to Michigan. See footnote 75.
[105] *Detroit News*, "Preserving the Great Lakes," January 14, 2001at 10A.

the federal government can and should assure that the states, in setting the standards for conservation, do not fall below their public trust responsibility. This will guard against states that may have want to break from the desire of other states to protect this minimum trust obligation towards the Great Lakes. At the same time, this will respect and honor the title and public trust authority of these States under the common law. In fact, a state that opposed the inclusion of a public trust principle or standard, in effect, would be operating outside the realm of the state rights vested in it under the common law and the 11th Amendment to the U.S. Constitution."[107]

Using the public trust doctrine to assert a federal role in protecting the Great Lakes ecosystem, including its bottomlands and the waters over them, and as a method of assuring strong resource protection policies by the states, is a novel approach in the water use debate. Although outside the mainstream of legal scholarship, it suggests a line of attack for a federal government either unhappy with the failure of the Great Lakes states to protect the Lakes – or interested in claiming decision making power over politically and socially important water diversions and bulk exports, should the states fail to uphold public trust principles.

A Note on Great Lakes Water and International Trade Agreements

The federal government, some critics say, has stealthily asserted control over the Great Lakes and other critical environmental resources through recent international trade agreements. If true, these criticisms could mean the agreements – and the international bodies that superintend them – have the ultimate power over Great Lakes water resources.

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[106] Both Stupak and Republican U.S. Rep. David Camp proposed amendments to the Water Resources Development Act, or WRDA.

Nongovernmental organizations have been deeply suspicious of expansive free trade policies initiated by the U.S. federal government in the 1980s and pursued aggressively in the ensuing decade. When President Clinton proposed the North American Free Trade Agreement (NAFTA) in 1992, Michigan environmental organizations, led by Clean Water Action and the East Michigan Environmental Action Council, joined forces with counterparts throughout the Basin to argue the pact would make it impossible to halt shipments of Great Lakes water across international lines and even out of North America.[108]

Responding to this concern, the governments of Mexico, Canada and the U.S. issued a nonbonding "joint statement" clarifying their intent.

> "The NAFTA creates no rights to the natural water resources of any Party to the Agreement...nothing in the NAFTA would oblige any NAFTA Party to either exploit its water for commercial use or to begin exporting water in any form. Water *in its natural state* [emphasis added] in lakes, rivers, reservoirs, aquifers, water basins, and the like is not a good or product, is not traded, and therefore is not and never has been subject to the terms of any trade agreement."[109]

In defending proposed Canadian legislation to impose a moratorium on the bulk export of Great Lakes water through an amendment to the Boundary Waters Treaty Act, in which Canada ratified the treaty establishing the International Joint Commission, Minister of Foreign Affairs Lloyd Axworthy declared, "Water in its natural state can be equated with other natural resources, such as trees in the forest, fish in the sea, or minerals in the ground. While all of these things can be transformed into saleable commodities through harvesting or extraction, until that crucial step is taken they remain

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[107] James Olson to Sean Wearley (aide to Rep. Stupak), July 19, 2000.
[108] Press release, Clean Water Action, "NAFTA threatens future of Great Lakes," November 2, 1993.
[109] Press release, Office of Canadian Prime Minister, "Prime Minister Announces NAFTA Improvements; Canada to Proceed with Agreement," December 2, 1993. The governments of the United States and Mexico issued similar statements.

natural resources and outside the scope of trade agreements."[110] The Canadian federal government reiterated this view with the reintroduction of legislation barring diversion of boundary waters, including the Great Lakes, in 2001.

> Water does not become a good until it is removed from its natural state and enters into commerce as a saleable commodity, such as in bottles or bulk containers. It would not include water provided by licence, or as a service by municipalities or a province for domestic, industrial, and agricultural uses where the charge for such water reflects the cost of supplying it rather than a price for it as a commodity. Even if that water were considered a good, it would only be in respect of that particular water and not water remaining in its natural state. Likewise, the issuance of a licence to withdraw water for a limited purpose, such as a temporary use, is not sufficient to transform that water into a good...Because water in its natural state is not a good and therefore outside the scope of the trade agreements, the proposed Accord on bulk water removal, and any federal or provincial measure regulating the extraction of water in its natural state, would not be subject to international obligations concerning trade in goods."[111]

Environmental groups are not so sanguine, and the attorneys who prepared the 1999 comprehensive briefing memorandum for the Council of Great Lakes Governors speculated that NAFTA and the WTO agreements put the region's water at risk of being traded in commerce. A general prohibition on export of Great Lakes water, they wrote, "would likely fail to survive scrutiny" under the agreements. Arguments that water is not a good in its natural state are not sufficient, they argued.. Article XI of the General Agreement on Tariffs and Trade (GATT), the attorneys noted, bars all quantitative restrictions on imports or exports from or into GATT countries. "These arguments run contrary to the logic and integrity of Article XI and, indeed, also run contrary to the United States' own jurisprudence with respect to the characterization of water as an article of commerce for purposes of the commerce clause, see *Sporhase*." Because

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[110] Canadian Department of Foreign Affairs and International Trade,*An Act to Amend the International Boundary Waters Treaty Act,* November 1999.

[111] Canadian Department of Foreign Affairs and International Trade, "Buk Water Removal and International Trade Considerations," background paper (November 16, 1999), introduction updated February 2001.

NAFTA expressly incorporates Article XI of GATT by reference, they argue the analysis would be the same under it. The 1993 official statement by the NAFTA parties, they add, didn't directly address the status of water in a pipeline or tanker hold, which could be likened to bottled water and therefore an article of commerce. But, like the environmentalists, they note that Article XX of NAFTA authorizes measures by party states that conserve exhaustible natural resources "if such measures are made effective in conjunction with restrictions on domestic production or consumption."

This brief review seems to suggest that any conservation-based statute or policy that is applied uniformly to water users both inside and outside the Great Lakes Basin – and Canada and the U.S. – would thwart large-scale water exports under trade agreements just as they would under domestic law, including the interstate commerce clause.

Politics and an Amended Boundary Waters Treaty

Preliminary results of the 2000 U.S. Census show a significant relative shift of population to southern and western states, fueling fears of "water raids" by those fast-growing arid regions. The resulting shift of power to the Sunbelt states in the U.S. Congress, as earlier described, has some observers fretting that the nation's lawmakers will seek to wrest control of the Great Lakes from the Great Lakes States. In response, Michigan politicians have argued the federal government should adopt a 'hands-off' policy for the lakes. Invoking the theme of resisting water grabs by the Southwest, Michigan State Senate Majority Leader Dan DeGrow said President George W. Bush should "view Great Lakes diversions on a par with cattle rustling."[112]

[112] *Michigan Report,* Gongwer News Service, Jan. 25, 2001, p. 6.

Yet at the same time Michigan political leaders have raised the specter of a realignment of political power in Washington, D.C., as a future threat, they have generally scorned any role for the current federal government in safeguarding the Great Lakes and enhancing Michigan's authority to protect them. The legal analysis commissioned by the Great Lakes Governors has created a general perception, echoed again and again not only by state officials but by environmental groups, that there is no legal theory or instrument by which Michigan can permanently exercise a veto on water diversions. This is inaccurate.

An amendment to the Boundary Waters Treaty of 1909, which created the International Joint Commission and empowered it to adjudicate diversions of the boundary waters, could legally empower Michigan or any other state to block proposed diversions or harmful consumptive uses. The Supreme Court has held since 1920 that under the federal government's treaty power, the United States may take actions that would not otherwise be held constitutional. In its landmark ruling upholding a Congressional act implementing the 1916 Migratory Bird Treaty Act, the Court observed that treaties made under the authority of the U.S. are the supreme law of the land.

"Acts of Congress are the supreme law of the land only when made in pursuance of the Constitution, while treaties are declared to be so when made under the authority of the United States....It is obvious that there may be matters of the sharpest exigency for the national well being that an act of Congress could not deal with but that a treaty followed by such an act could, and it is not lightly to be assumed that, in matters requiring national action, 'a power which must belong to and reside in every civilized government is not to be found.'"[113]

The *State of Missouri* case clearly articulated the principle that pursuant to an international treaty, the United States may supersede restrictions otherwise imposed by the Constitution. In *State of Missouri*, plaintiffs argued, *inter alia*, that the 1918

Migratory Bird Treaty Act was an unconstitutional interference with the reserved right of the state pursuant to the Tenth Amendment to own and manage wildlife. The state sought to invalidate the 1918 act on the grounds that it unconstitutionally extended the reach of the federal government. But the Court held that the treaty power in fact fashioned the supreme law of the land and that treaties and resulting Congressional enactments were not subject to the same Constitutional tests as other initiatives.

In negotiating an amendment to the Boundary Waters Treaty to give the states decision-making power or a veto over harmful consumptive uses and water diversions, the federal government would in effect be seeking to strengthen the hand of the states, but the same finding applies: the treaty power may trump constitutional and statutory restrictions on the powers of either the federal or state governments. Thus, a Boundary Waters Treaty amendment could lawfully provide a state veto over consumptive uses and water diversions, enabling Michigan to anchor the Great Lakes Basin with its natural resistance to harmful water uses and transfers, regardless of the Constitution's interstate commerce clause. Of course, the political likelihood of either the initiation or ratification of such a treaty amendment is dubious. But it is an absolute impossibility without the advocacy of Michigan officials and constituent groups.

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[113] *State of Missouri v. Holland*, 252 U.S. 416.

Part Six

Conclusion and Recommendations

In devising a strategy to see Michigan and the Great Lakes through coming times of water scarcity and competition for freshwater resources, it is important to keep in mind constitutional and statutory issues as well as physical facts about the Great Lakes system and public sentiment in Michigan and the region. It is the contention of this thesis that Michigan can build a potentially powerful defense against out-of-Basin water transfers in spite of concerns about constitutional restraints and trade agreements. It is also the contention of this thesis that Michigan is not currently well positioned to support such a defense by demonstrating a link between its own water use policies and protection of the fragile Great Lakes ecosystem. In other words, the state must immediately and officially act – through statutory and budget policies – to demonstrate a conservation ethic and to develop scientific information on the intricacies of the ecosystem if it is to protect the Lakes from transfers.

Michigan's Program for Water Uses

While arguing for strong and unified actions to protect the Great Lakes from water transfers, Michigan has lagged behind other states in taking action to improve management of water uses. It can be argued that Michigan is last among the states in monitoring water uses, limiting their impact on ecosystems, and researching the effects of lowered water levels.

The relative paucity of data on water uses in the region stuns observers used to fierce contention over far smaller quantities of water in more arid regions of the country. G. Tracy Mehan, Director of Michigan's Office of the Great Lakes and former director of

the Missouri Department of Natural Resources, observed, "The states and provinces have been flying blind with respect to basic data and information on the quantitative issues. The lack of a hard-target water budget would shock managers from the western states. The states and provinces will need to heed the call for a renewed commitment to this part of the Charter."[114]

In the same presentation, Mehan acknowledged Michigan's failure to enact a basic statute governing water use. "Painful as it is for me to say, water-rich states like Michigan will have to move to some sort of water withdrawal regulatory program with respect to their own riparians in order to maintain political legitimacy and to avoid legal challenges to their authority to regulate, even prohibit, diversions out of the Great Lakes Basin."[115]

Following the adoption of the Great Lakes Charter in 1985, each Great Lakes state created or expanded water use reporting and permitting programs. Except for Michigan, each state established a program consisting of two to four full time staff positions and between $200,000 and $300,000 in annual appropriations. Wisconsin and New York enacted and toughened water use permitting statutes.[116]

Michigan, however, capitalized on existing federal grant monies and temporary state funding to maintain a water use program consisting of one full-time employee. Only

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[114] G. Tracy Mehan III, presentation at CLE International Conference on Great Lakes Water Law, February 24-25, 2000.

[115] Mehan, however, in statements made to Michigan audiences, has rarely mentioned the need for the state to obtain statutory authority over water uses. Enactment of such a statute would be politically difficult, particularly with regard to agricultural uses. As is the case in surrounding states, agriculture is largely exempted from compliance with environmental statutes because of the industry's political cloutin the state capital. Mehan instead uses the terms "standards" and "requests," e.g.: "Last December, the governors released a draft of their agreement on standards to be used when looking at future requests to withdraw Great Lakes water from out of state." *Detroit Free Press,* January 30, 2001, page 7A.

[116] Information on the history of DEQ's water use reporting and monitoring program was supplied January 17, 2001 by staff of the Office of the Great Lakes

after five years of debate – and after resistance from the agriculture community was overcome – did the state enact a water use reporting statute, in 1990. Public Acts 326 and 327 of 1990 required approximately 1100 major water users to register with the state – but the Governor and Legislature balked at establishing standards for new withdrawals from the Great Lakes or tributaries.

Patching together temporary grant funding and modest state general fund support, Michigan's water use program struggled to survive until 1996, when the Legislature approved a flat annual fee of $50 per major water user, raising approximately $53,000 each year for monitoring of water uses. The agriculture industry continued to chafe at the reporting requirement, fearing state oversight of irrigation. Also in 1996, the Legislature excused irrigators from reporting individually by requiring the Department of Environmental Quality and Michigan State University to develop an estimation model enabling the two institutions to make an informed estimate of the amount of water withdrawn for this use.

In fiscal 2001, the DEQ continues to operate on a shoestring budget for water use reporting and monitoring, and is unable both programmatically and statutorily to review new water uses no matter what volume. "We would need significant additional resources to comply with the 1985 Charter, let alone Annex 2001," said a DEQ official.[117] The state program is deficient in several respects:

- It compiles and reports annual water use data for only two and one-half of the five major water use categories required under the Great Lakes

[117] *See id.*

Charter.[118] Lacking are data on hydroelectric power generation, livestock, and domestic uses.

- Public water supplies and hydroelectric systems are exempted from the $50 annual fee, shortchanging the program.
- Analysis of the data is conducted not by the State of Michigan, but by the Great Lakes Commission, a regional body created pursuant to an interstate compact. While necessary to promote standardization of data across the region, reporting to the Commission should not be the sole means of assuring proper data analysis. Michigan must retain an independent capacity not only to analyze in-state water uses, but also to monitor and analyze uses across the Basin, since the interests of the Great Lakes states may at some future date diverge.[119]

Michigan's water use reporting and analysis deficiencies are by no means unique. Commenting on the Great Lakes Commission's August 1999 report, *Consumptive Use in the Great Lakes-St. Lawrence Basin*, the Michigan Department of Environmental Quality observed, "...[T]he Great Lakes states and provinces vary considerably in the nature and extent of their water use monitoring, reporting, and analysis capabilities. It was emphasized that limited staffing and financial resources have compromised the comprehensiveness,

[118] Michigan Department of Environmental Quality, *Report to the Legislature of the State of Michigan by the Department of Environmental Quality Pursuant to Section 32714, Part 327, Great Lakes Preservation, Natural Resources and Environmental Protection Act, 1994 PA 451, as amended*, December 29, 1999.

[119] Michigan's failure to implement a satisfactory water use monitoring and regulatory program may well leave it vulnerable to an attack from concerned citizens on the grounds that the state has failed to exercise its authority to protect the public trust resources of water and the ecosystems it feeds. In a recent petition to the Washington Department of Fish and Wildlife, a group known as Public Employees for Environmental Responsibility (PEER) has argued that the State of Washington is failing to meet its public trust mandate to

accuracy, and timeliness of such efforts and have limited usage of such data in decision-making processes."[120]

As the only state lying almost entirely in the Great Lakes Basin, Michigan withdraws the greatest amount of water from the Great Lakes and must demonstrate the ability to monitor its water use as a first step toward demonstrating politically and legally a commitment to water conservation. This will be critical to meet the standard outlined by Justice Stevens in *Sporhase*, when he said the Court would be "reluctant to condemn as unreasonable [under the commerce clause] measures taken by a state to conserve and preserve for its own citizens this vital resource in times of shortage." Execution of Annex 2001 will increase the need for state funds. In addition to water use reporting, the state should pledge to enact a statute to review and approve or reject proposed major water uses based on objective criteria related to the public health, safety and welfare.

In this regard, the IJC recommendations offer several advantages in language over the standard in the draft Annex 2001:

- The IJC recommends no new or increased withdrawals of Great Lakes water unless there are "no practical alternatives" for obtaining the water, a much stricter standard than the Annex 2001 requirement that proposals include "implementation of all reasonable and appropriate water conservation measures."
- The IJC calls for "sound planning practices with respect to the proposed removal."

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protect the state's valuable sport and commercial fisheries through inadequate budgets, inadequate enforcement of laws, and political interference. The petition is a prelude to a potential public trust lawsuit.

[120] See supra note 119, *Report to the Legislature of the State of Michigan by the Department of Environmental Quality Pursuant to Section 32714.*

- The IJC calls for full consideration of the potential cumulative impacts of the proposed removals, "taking into account the possibility of similar proposals in the foreseeable future."
- As noted, the IJC argues for a standard of "no net loss to the area from which the water is taken, and in any event...no greater than a 5 percent loss (the average loss of all consumptive uses within the Basin); and the water is returned in a condition" that protects the quality and biological integrity of the waters of the Great Lakes.

The final point is particularly noteworthy. By imposing a 5 percent loss standard, the Great Lakes states would appear to meet the constitutional standard of evenhanded regulation under the commerce clause while erecting a substantial barrier to exports or diversions across great distances. It is doubtful that any bulk export or diversion to distant areas of the U.S. could economically return 95 percent of the water taken, while on average all in-Basin uses, even new ones, would do so. In addition, the IJC standard would prevent adverse impacts to localized regions, such as headwaters areas of Great Lakes tributaries, by preventing large consumptive uses or diversions in such areas that are offset by mitigation efforts elsewhere that do not provide benefit to the local ecosystem.

The IJC also stresses the need for aggressive efforts to remedy water use data deficiencies, something not explicitly addressed by the Governors. These efforts would include broader and deeper information on current water uses, efforts to make such data consistent across the Basin, and the undertaking of coordinated research efforts "to provide improved information for future water planning and management decisions."

Conservation and a Moratorium on New Water Withdrawals and Exports

The *Sporhase* and *Fort Gratiot* commerce clause rulings, taken together, point the way to the remaining elements of a Michigan strategy to conserve and manage the waters of the Great Lakes.

The U.S. Supreme Court has in the two rulings suggested that state statutes placing restrictions on the interstate transfer of water will not be held inconsistent with the commerce clause of the Constitution if they are designed to conserve vital resources necessary to the public health, safety and welfare. Because the water of the vast Great Lakes system is the foundation of life in the Great Lakes region – and not just human life – its conservation is clearly well within the police powers of government. And because science still admits to great unknowns regarding the effects of even minor fluctuations of water on the flora and fauna of the Great Lakes ecosystem, the public trust doctrine may be a powerful tool to use as the basis for forestalling major new water withdrawals and exports outside the Basin.

Michigan would be obligated to establish several critical facts in any effort to uphold such a moratorium:

- It must adopt and aggressively enforce a program to reduce water withdrawals and consumption within its borders. Mandatory water metering in areas served by public water supplies and water conservation education and technical assistance for other water users would be important elements of such a program. If they were adopted, a moratorium on withdrawals for uses or exports outside the Basin could

well be construed as the least burdensome possible method of achieving the state's police power aims.

- It must increase efforts to analyze the scientific unknowns themselves. The $100 million Great Lakes Protection Fund, a regional endowment created by the eight states, provides an ample foundation of funding to carry out a long-term ecosystem research program pinpointing the relationship between surface and groundwater availability and such matters as wetland productivity, public health, and economic impacts. Such a program should be engineered without delay.
- Perhaps most important, Michigan must attempt to persuade its seven U.S. neighbor states that in the short term, at least, region-wide water conservation is preferable to the risk that would be created by new diversions of Great Lakes water outside the Basin, but within the Great Lakes states. That is, new diversions, even if justified as necessary to meet public health concerns in such states as Wisconsin, Illinois, or Indiana, could undermine the region's case that diversions or exports to more distant regions cannot be permitted. Such a policy would clearly not be evenhanded under the commerce clause.
- Finally, and importantly, at least as a negotiating position, Michigan should advocate an amendment to the Boundary Waters Treaty of 1909 providing any Great Lakes state veto power over proposed diversions and consumptive uses of Basin water. Alternatively, the amended treaty could simply bar such diversions and consumptive uses directly on the

grounds that the Great Lakes are a resource of national and international significance and must be conserved for the benefit of current and future generations.[121] In the interests of sound public policy and to facilitate Congressional ratification of such an amendment, the state should propose that the amendment be coupled with far more aggressive efforts by the Great Lakes states to conserve water, to research the effects of lowered water levels on the waters of the Great Lakes ecosystem, and to regulate by statute major water users within all the Great Lakes states. Canadian ratification of such an amendment could be facilitated through reciprocal language empowering the provinces of Ontario and Quebec to veto proposed diversions and consumptive uses.

Conclusion

The 1998 Nova Group proposal to export Lake Superior water to Asia has done a service to the Great Lakes region, spurring the states, Ontario, and the Canadian and U.S. federal governments to reconsider whether adequate protections are in place for this globally significant water resource. Michigan has exercised particular leadership in attempting to fashion measures that will build upon existing authority and regional consultation processes to prevent harm to the Great Lakes ecosystem and economy.

A review of the measures considered and adopted to date, however, indicates that the Great Lakes governments are not fully exploiting the potential of the public trust

[121] Great Lakes advocates, such as the nongovernmental group Great Lakes United, have argued that the U.S. Congress should dedicate resources to the Great Lakes ecosystem comparable to the $7.8 billion Florida Everglades restoration plan that cleared the Congress in 2000. Half of the money to fund the Everglades plan is expected to be appropriated by Congress. Similar recognition for theGreat Lakes as a national treasure would make their protection via treaty more likely.

doctrine to protect the resource – at least in the ecological short term of the next 10 to 20 years. In effect, the governments are conceding in advance major new water uses that will adversely affect the ecosystem, rather than stressing that water conservation is imperative and capping water use at current levels. This is, no doubt, a result of the historic public perception that conservation is unnecessary in a water-rich region – and a fear that efforts to stimulate or impose conservation on Basin residents will stimulate a political revolt.

But public support is a potent force for the future of the Great Lakes, with residents of Michigan, at least, almost unanimous in their opposition to water diversions and exports. These strong sentiments should be harnessed to support steps that will protect the resource in the long run. By explaining that conservation is a long-term necessity for all who seek to use Basin water resources, political leaders can build support for measures that might be otherwise politically difficult.[122] A moratorium on consumptive water withdrawals and exports that do not return at least 95 percent of water withdrawn will enhance the perception of fairness in the public's mind, and provide the necessary support for in-Basin conservation efforts.

The use of the public trust doctrine to support such an interim strategy has a strong basis in legal history and is easily understood by the public as a bulwark of protection for the Lakes. Michigan, cradled by the Lakes, has a unique opportunity to promote the use of the doctrine and to press its neighbors to go farther than they otherwise would, provided that the state takes steps to conserve water within its boundaries and to commission the scientific research necessary to understand better the intricacies of a system harboring so much of the world's fresh water. The proposed

Annex 2001, while improving the position of Michigan in protecting and conserving the Great Lakes, contains subtle but legally and politically significant loopholes that may cost the state in the future. It should be amended, and complemented by an aggressive conservation and education program by the State of Michigan.

[122] The willingness of Michigan citizens to tax themselves to support water cleanup– as evidenced by overwhelming voter approval of general obligation bond issues in 1968, 1988 and 1998 for this purpose – amply illustrates the concern of the Michigan public for this resource.

Appendix A

A Hypothetical Memorandum to the Governor of Michigan From the Executive Office Environmental Advisor[123]

Governor, you have asked for recommendations on the complex issue of Great Lakes water diversion. During the past six months, I've met with representatives of the State Chamber of Commerce, Michigan Manufacturers Association, and Michigan Farm Bureau, as well as environmental and conservation organizations; met and discussed the issue with numerous legal experts; solicited views and data from the state departments of Natural Resources, Environmental Quality, Agriculture, Transportation and the Michigan Economic Development Corporation; met and discussed the issue with representatives of the other Great Lakes states and the Province of Ontario; met with the staff of several members of our state's Congressional delegation; and consulted with the International Joint Commission.

The following memo is a distillation of the best advice and data I've collected in this effort. In my mind, it provides the wisest course you can take in marshaling public support and fostering new legal mechanisms to protect the Great Lakes from new and increased water diversions, large-scale water withdrawals that might have adverse impacts, and sales of Great Lakes water outside the Great Lakes Basin. I have listed a number of initiatives that I encourage you to announce as a package. However, with the exception of a proposed five-year renewable moratorium on Great Lakes water

[123] Under Michigan law, documents internal to the Executive Office are not subject to the Freedom of Information Act in order to promote the confidentiality of Governor-staff communications. In practice,

withdrawals, exports and sales, any one initiative can be deleted from the program without significant impact. I believe the recommendations provide you with maximum flexibility and leadership opportunities.

Public Attitudes and Legal Constraints

As you understand, there appears to be a conflict between what the public of Michigan demands and what international, Constitutional and U.S. statutory law provides and permits. The most recent poll of attitudes among Michigan citizens on Great Lakes water exports, taken in 1992, showed an overwhelming 91% of registered voters flatly opposed any increase in water exports from the Lakes. There is no reason to think these attitudes have changed.

Meanwhile, the prevailing legal wisdom is that a variety of legal barriers block the ability of any state, all of the Great Lakes states, or even the U.S. government from prohibiting new or increased diversions or the sale of Great Lakes water. These barriers are thought to include:

- *International trade agreements*, including the General Agreement on Tariffs and Trade, administered by the World Trade Organization (WTO), and the North American Free Trade Agreement (NAFTA). To the extent that water in lakes, rivers and/or groundwater can be considered a commodity and not simply a natural resource, these agreements may well bar both prohibitions on export and limitations on export that are not based on a compelling justification of protecting the public health, safety or welfare.

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however, staff are careful with their words in order not to risk a controversy in the event of a "leak" of written communications.

- *The interstate commerce clause* of the U.S. Constitution, which reserves to Congress the authority to regulate trade among the several states. In recent years, even state restrictions on solid waste shipments across state lines have been struck down by the U.S. Supreme Court as an unconstitutional infringement on this Congressional authority.
- *Limitations of the authority of both the International Joint Commission (IJC) and the Great Lakes Commission (GLC).* Under the Boundary Waters Treaty of 1909, which established the IJC, the Commission in theory has the authority to disapprove diversions of the boundary waters. However, this authority has been checked by the fact that tributaries to Lakes Superior, Huron, Erie and Ontario are not considered boundary waters, nor is any part of the watershed of Lake Michigan, since it lies entirely within the U.S.[124] The IJC has also not demonstrated, to date, a willingness to exercise existing authority or seek additional authority to regulate any or all Great Lakes diversions. The GLC, meanwhile, exists largely as a mechanism to promote consultation and cooperation among the Great Lakes states. Amendments to the Great Lakes Basin Compact would be required to grant the GLC regulatory authority over water withdrawals, and this would be politically problematic because of the divergent views of the states and the divergent character of the delegations of each Great Lakes state to the GLC.
- *Limitations of the single existing federal statute expressly relating to Great Lakes diversions.* A 1986 amendment to the federal Water Resources

[124] This is a legal, not a hydrologic fact, of course. Lakes Huron and Michigan are considered by hydrologists to be a single lake, since they have a single water level.

Development Act (WRDA) granted what amounts to a veto of any new or increased diversion of Great Lakes water to the Governor of any Great Lakes state. Some argue that this statute is unconstitutional. And it may come under increasing scrutiny in Congress because of population shifts and increasing relative power for the Southern and Western states.

- *Limitations of the 1985 Great Lakes Charter.* This voluntary, non-binding agreement among the eight Great Lakes states, later entered into by Ontario and Quebec, is more in the nature of a joint statement of intent, notice and consultation process, and a management plan than it is an effective restriction on new or increased water diversions, withdrawals or water sales.

The prevailing wisdom has been that despite a proliferation of Great Lakes Basin agreements, consultative mechanisms, statutes, and even an international treaty, the Great Lakes states – and a single state like Michigan – are virtually helpless under current conditions to resist the loss of some, and perhaps major amounts of Great Lakes water. I urge you to reject this defeatist position. It is not only inconsistent with the will of the Michigan public, but is also founded on a crabbed approach to both the law and the possibilities that devolve from strong leadership by the chief executive of Michigan.

Legal and Political Opportunities

The two most important limitations on a strong anti-water export position are obvious. First, Michigan doesn't control the Great Lakes. Any effective action we take in the short term, at least, depends on winning the support and cooperation of most or all of the other seven Great Lakes states and Ontario. Second, the interstate commerce

clause only *appears* to bar Michigan or even the eight Great Lakes states acting in concert from seeking to slap an embargo on trade in Great Lakes water.

While we cannot change the first limitation, we can certainly challenge the second. The following points are relevant here:

- *The U.S. Supreme Court has not absolutely ruled out state restrictions on interstate trade, particularly when the public health is involved.* One of the most recent Court rulings in the area of environmental restrictions on interstate commerce is its 1992 decision on Michigan's law providing counties the authority to ban imports of solid waste, whether from within Michigan or from outside of the state.

A closer reading of the Court's ruling, however, shows that it virtually invited states to make a case that a prohibition on some forms of interstate commerce was justified in order to protect the public health, safety or welfare. In the *Fort Gratiot* case, Justice Stevens wrote for the majority: "Of course, our conclusion would be different if the imported waste raised health or other concerns not presented by Michigan waste. In *Maine* v. *Taylor*, 477 U.S. 131 (1986), for example, we upheld the State's prohibition against the importation of live baitfish because parasites and other characteristics of nonnative species posed a serious threat to native fish that could not be avoided by available inspection techniques." Legal experts I trust have suggested that Michigan and its neighbors may, in fact, craft at least a temporary prohibition on exports of Great Lakes water if they can demonstrate a credible linkage to the protection of the public health, safety or welfare.

In a 1982 ruling adverse to a state's water-related environmental restriction – a ban by the State of Nebraska on the export of groundwater to another state unless that

state provided a reciprocal opportunity for import of groundwater to Nebraska – Justice Stevens also suggested a manner in which a state must pass constitutional muster in restricting export of Great Lakes water. Referring to cases in which states acted to protect vital and threatened natural resources, he said, "In my view, these cases appropriately recognize the traditional authority of a State over resources within its boundaries which are essential not only to the well-being but often to the very lives of its citizens. In the exercise of this authority, a State may so regulate a natural resource as to preclude that resource from attaining the status of an 'article of commerce' for the purposes of the negative impact of the Commerce Clause. It is difficult, if not impossible, to conclude that 'commerce' exists in an item that cannot be reduced to possession under state law and in which the State recognizes only a usufructuary right. 'Commerce' cannot exist in a natural resource that cannot be sold, rented, traded, or transferred, but only used."

The case, *Sporhase v. Nebraska*, has critical implications for the latitude of Michigan and its neighbors to impose restrictions or temporary moratoria on the export of Great Lakes waters. In supporting its 1985 draft Great Lakes Charter and interpreting existing case law, the Great Lakes Governors Task Force pointed out:

"To summarize, when regulating interstate water transport, states must be able to demonstrate that (1) the regulations apply both to in-state and out-of-state users, although a state may show a limited preference for its own citizens in times of shortage in order to protect their health and welfare (and not simply the economic well-being of the state); and (2) the regulations are narrowly tailored to the purpose of the statute, in this case, to protect and ensure the water supply for a state's citizens."

While arguing *Sporhase* and other precedents made it impossible for the Great Lakes states or any individual to enact water "embargoes," the Task Force did not address the issue of restrictions or prohibitions imposed in order to secure the public health, safety, or welfare, based on the public trust doctrine. This, I believe, presents an important opening for you and chief executives of the other Great Lakes states.

A Moratorium on New or Increased Water Diversions and Exports

The lesson of the 20th Century in Great Lakes management was that the exquisite sensitivity of these majestic lakes is poorly understood, and that human ignorance about subtle changes and interconnections in the Lakes can have devastating consequences. Examples are numerous and include the explosion of non-native aquatic species populating the Lakes and their disruption of the aquatic food chain; the dumping of persistent bioaccumulative chemicals and their intergenerational effects on human and ecosystem health; the sweeping development of terrestrial habitats with impervious surfaces, resulting in more frequent and devastating floods and pulses of pollutants arriving in the Lakes; and the destruction of coastal wetlands, seriously jeopardizing both shoreline property owners and fish and wildlife populations. Time and time again, human actions undertaken with the best of intentions have resulted in unforeseen and often catastrophic consequences for the Great Lakes.

Similarly, proponents of new or increased water diversions and water exports argue that the volume of water in the Great Lakes is so enormous that even large losses will make little difference to the ecosystem or the economy of the region. Such claims are reminiscent of 1800s lumber barons who argued the forests of northern Michigan were inexhaustible or city officials of the early 1900s who contended that dumping raw sewage

into the Great Lakes was not harmful because the huge system would assimilate all such wastes. These memories lie dormant but ready to be reawakened in the popular consciousness of Michigan, and I believe they can assist you in making the case that the Great Lakes governments should impose a moratorium on water transfers and exports from the Great Lakes.

You can make four arguments to support the moratorium. First, the burden of proof in this matter, politically, rests with the proponents of water transfers and exports, at least in the short run. Whatever the legal merits of attempts by water entrepreneurs or out-of-Basin governments to make claims on Great Lakes water, their bids will be politically untenable unless they can demonstrate a serious need that is itself related to the public health, safety and welfare. It is arguable that no significant water shortage will exist within any region of the United States for at least the next decade, if not longer. This gives the region valuable time to improve its understanding of the complicated Great Lakes ecosystem. Preserving the status quo with respect to Great Lakes water diversions and transports has another sturdy basis. The assumption inherent in the ethic of ecosystem management that has taken root not only in this region but throughout North America is the doctor's responsibility: "first do no harm."

Second, the Great Lakes are a resource at greater risk than might be suspected from a casual glance out over their expansive waters. Significantly, the IJC has buttressed this position, at least in the popular mind, by noting in its February 2000 report:

"The waters of the Great Lakes are, for the most part, a nonrenewable resource. They are composed of numerous aquifers (groundwater) that have filled with water over the centuries, waters that flow in the tributaries of the Great Lakes, and waters that fill the lakes themselves. Although the total volume in the lakes is vast, on average less than 1

percent of the waters of the Great Lakes is renewed annually by precipitation, surface water runoff, and inflow from groundwater sources."

Largely a gift from the glaciers, then, the Lakes are perhaps less invulnerable to water withdrawals, sales and diversions than some would think. The IJC has itself advocated in the same report a quasi-moratorium on water removals by suggesting applicants be required to demonstrate their actions will not endanger the Lakes. This is an impossibility using current scientific knowledge. You can couple the cautious views of the IJC with strong public sentiment in Michigan to champion a relatively long-lasting moratorium while Michigan and the other jurisdictions in the Basin pursue the information needed to better understand the hydrology and the ecology of the Lakes.

Third, with water levels of the Lakes near historic lows, a moratorium may well be required to protect the public health as well as the region's economy, and the public is aware of this. There has been extensive news coverage this past year of the difficulties already posed to recreational and commercial navigation by the lowered water levels. The Lake Carriers Association has estimated more than $50 million in costs associated with the lower water levels during the 2000 season, with vessels able to carry significantly less cargo than in previous years. Significantly, some municipal water intakes reliant on the open waters of the Great Lakes may soon be at risk and relocation of the provision of alternative water supplies may be required. Tourism is also at risk if water levels fall. MSU researchers found in a survey of over 3,700 visitors to Michigan that the "most frequently mentioned positive impression" of the state as a pleasure trip destination was "water-related resources," at 29%. The next closest positive impression was related – scenery, at 17%. The water-related resources category included lakes, lake shores, and other resources.

This is of great political and legal significance. The Supreme Court has indicated that state efforts to control water exports may be upheld if the public health is at stake. As Justice Stevens acknowledged in *Sporhase v. Nebraska*, "a State's power to regulate the use of water in times and places of shortage for the purpose of protecting the health of its citizens—and not simply the health of its economy—is at the core of its police power." The 1985 Great Lakes Governors' Task Force dismissed this as an avenue of legal protection for the states, observing, "The water rich Basin states would have a difficult time demonstrating that an out-of-basin diversion would deplete their water supplies to the extent that public health would be jeopardized." But this statement itself is founded on an inadequate and now outdated understanding of the cumulative impact of water withdrawals on public water supplies in the Great Lakes, and on ignorance of the other potential public health impacts resulting from lowered water levels.

Environmental and conservation groups will also applaud any statements you make about the necessity of preserving current or restoring historic water regimes in order to protect fish and wildlife habitat. Great Lakes coastal wetlands are well known as spawning and nursery grounds for species important to sport and commercial fishing, and as feeding and staging habitat for waterfowl. Tampering with water levels through diversions or water sales could well have unforeseen impacts on the biological productivity and diversity of the Lakes.

Finally, several Michigan legal experts I have consulted argue that the public trust doctrine provides a strong underpinning for a moratorium on new or increased water withdrawals, exports and diversions. This venerable legal doctrine has, during the 20th Century, gained in acceptance as a common law method of securing protection of

environmental resources. For example, in the famous Mono Lake case in California, that state's Supreme Court ruled that maintenance of the flows of tributaries is legally tenable under the doctrine in order to protect the fragile fish and wildlife of the scenic lake. The court ruled that the public trust doctrine "is an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust." The Great Lakes compare well with Mono Lake as a resource of national, let alone global significance. The public trust doctrine gives Michigan a strong argument in a court of law as well as the court of public opinion.

In summary, I conclude you will be on the political and legal high ground if you advocate a moratorium on new or increased water exports, diversions or withdrawals as Michigan and the Great Lakes states join with Ontario and the respective federal governments to collect information needed to understand the Great Lakes ecosystem.

Viewpoints of Other Jurisdictions and Constituent Groups

As previously noted and as you well know, Ontario is likely to be our stoutest ally in resisting new or increased water exports, diversions or withdrawals. But after consultation with representatives of the other Great Lakes governors, I am confident you will be supported in at least a short-term moratorium, provided that Michigan joins with neighbors in efforts to pursue a better understanding of the Lakes and their potential for absorbing water reductions.

It is a particular sore point with Illinois, Wisconsin and Minnesota that Michigan remains the only Great Lakes state without a major water use permitting statute. Called

for in the Great Lakes Charter, consistent permitting legislation across the region is necessary to participate in the prior notice and consultation process set forth in the 1985 Charter. The states have permitted Michigan representatives to participate in the process in part out of courtesy, in part out of the subsequent legal veto granted each Great Lakes governor by the 1986 WRDA amendment, and in part out of the hope that Michigan will move forward to strengthen its ecosystem research and water use permitting programs.

We in Michigan are still not ready to enact a full-scale water use permitting program, as you know. The failure of the state's 1987 "master water plan" to accomplish its goals was due in large part to suspicion that the plan was a first step toward centralized state control of water, and in the regulated community, that perception persists. The Michigan Farm Bureau will strongly resist any regulatory control over the use of water by farmers; representatives of MMA and the Chamber continue to hold that the same control will darken Michigan's business climate. But experience with Michigan's 1990 water use registration law and the state's conservative use of the data it has generated has established good will that may help us move carefully forward in the next session of the legislature with a comprehensive water program.

We can make a strong case to the regulated community that while regulation of water use may not now be necessary, water conservation is. As environmental groups never fail to point out, Supreme Court cases such as *Sporhase* have clearly set forth the Court's view that any hope of retarding water shipments out of the region will rest on the ability of the states to demonstrate they have been careful stewards of the water they seek to protect. Stevens made the point in the *Sporhase* ruling: "Obviously, a State that imposes severe withdrawal and use restrictions on its own citizens is not discriminating

against interstate commerce when it seeks to prevent the uncontrolled transfer of water out of the State." While "severe restrictions" are not something anyone advocates for the Great Lakes, more careful monitoring of and limiting of water uses not only makes legal sense, but also is also feasible with emerging technologies.

I think it is fair to say the patience of some of the states has run out. A delay of 15 years in complying with the Charter is not insignificant. But your recent private assurances to your peers at the Council of Great Lakes Governors meetings have gone a long way toward allaying these concerns. A prompt resolution of our negotiations with the governors will move us forward cooperatively.

Federal relations are a different story. My conversations with Detroit district and Cincinnati staff of the U.S. Army Corps of Engineers have unearthed wariness of the region's efforts to control its water destiny. Not surprisingly, there are some in the Corps who believe the federal government ultimately retains authority over regulation of the Lakes' levels and flows under the terms by which the states were admitted to the union. These terms retained the federal authority to assure navigation.

While such bureaucratic resistance is fairly easily overcome through appeals directly to the Secretary of the Army, we should be concerned about signals sent by the Sunbelt senators and representatives who control the relevant committees in Congress. Our unsuccessful efforts to craft consensus anti-diversion, anti-export language in the 2000 version of WRDA not only demonstrated political disagreement internal to the region, but also exposed the skepticism of Senators Smith of New Hampshire and Baucus of Montana and Representatives Young of Alaska and Miller of California regarding the water policies of the Great Lakes jurisdictions. I believe an appearance of weakness

inherent in regional disarray can best be addressed by a quick announcement of a regional water strategy.

My consultations with constituent groups, as suggested earlier, have revealed caution about proposals to regulate water use in the Basin but an otherwise general agreement that the future of the region depends on action in the near term to strengthen the political and legal foundation protecting Lakes water flows. I am pleased to be able to recommend to you a program which I believe will command the support of virtually all Michigan constituencies concerned about this issue, as well as the cooperation of other states, Ontario, and our Congressional delegation.

The Recommended Program

I urge your consideration of the following program for the conservation and management of the waters of the Great Lakes:

- *A five-year renewable moratorium on most new or increased water withdrawals, diversions or bulk exports of Great Lakes water.* This legally binding moratorium, enacted in each jurisdiction by statute, will bar withdrawals, diversions or bulk exports that fail to return 95 percent or more of the water they remove from the Basin; in a condition comparable to the condition in which it is found at the time of removal; and with no net loss to the area from which the water is taken. This tracks the IJC's 2000 recommendations. The 95 percent standard is the average amount of water returned by in-Basin water users. It provides us an opportunity to regulate in an even-handed fashion both in-Basin and out-of-Basin uses, while

discouraging long-range diversions and bulk exports in a way likely to withstand scrutiny from the federal courts.

- *Requiring, in parallel state statutes enacted by all the Great Lake states, that there be "no feasible and prudent alternatives" to the proposed use even when allowed.* While discussion of a proposed Annex 2001 has suggested that a water conservation requirement embedded in each proposal for a withdrawal should suffice, this language, in fact, falls far short of protecting the Great Lakes. Michigan should insist that major water users, just like applicants to develop wetlands and other sensitive areas under our own laws, demonstrate there are no feasible and prudent alternatives to the proposal.
- *Creation of a Great Lakes Ecosystem Research Partnership targeted at gauging the interrelationship of water levels and public health, ecosystem health, and the economy of the Great Lakes region.* As was done with the 1988 creation of the Great Lakes Protection Fund, the eight states and Ontario will commit to the creation of a fund of at least $200 million over the next ten years to conduct and publish peer-reviewed research whose primary purpose will be to pinpoint the interrelationship of Great Lakes water levels (and their natural fluctuations) with fisheries and wildlife productivity, public health, and commercial and recreational navigation. Michigan will take the first step by committing $50 million over 10 years.
- *Enactment of a state-by-state Great Lakes Water Conservation Program.* Each state and Ontario will commit to reviewing current water uses and policies and announcing strategies to cap water withdrawals and consumption

at year 2000 levels by the year 2010. You will convene a panel of industrial, environmental, municipal, agricultural and public health interests to develop a plan to achieve the goal, with the report due no later than six months after its commencement.

- *Enhancement of the monitoring and management of water levels and flows from existing water control structures and diversions by the International Joint Commission.* The Great Lakes states and Ontario will ask the Canadian and U.S. governments to seek appropriate funding to assist the IJC in its mission, under the 1909 Boundary Waters Treaty, of monitoring and managing water diversions at several locations in the Great Lakes Basin.
- *Creation of a Great Lakes Water Conservation Council to participate in implementation of the program and to educate the public on its necessity and status.* The Council will serve as the "bully pulpit" for the regional program you are championing. Each state will nominate three non-governmental and two governmental representatives to the task force to oversee the initiative you are announcing and to launch a public education effort focused particularly on the necessity of implementing a water conservation ethic.
- *Signing of a regional agreement embodying the above.* To dramatize the historical significance of the program, the Governors and Premier of Ontario should formalize the program in a signing ceremony.
- *Enactment of Congressional statute or resolution recognizing the region's conservation efforts and pledging federal support for conservation of the Great Lakes.* While of limited legal significance (because it can always be

undone), Congressional assent to the program you are endorsing will signal a willingness of Washington to permit the states and Ontario to organize themselves to conserve the Great Lakes appropriately. Our Congressional delegation is confident that a resolution of support for the program would have little difficulty winning Congressional approval. A statute imposing a moratorium, however, would obviously have far greater impact and this should be explored.

- *A request to the President and U.S. Trade Representative to clarify the understanding of the federal government with respect to the impact of NAFTA and the WTO on water withdrawals and exports.* Although the feds have repeatedly stated that both NAFTA and the agreements administered by WTO do not impact Great Lakes water withdrawals and exports, the region will be in a much stronger position if it obtains formal confirmation of this understanding. A letter signed by all eight Great Lakes governors, I am told, is likely to force the hand of the Administration on this issue, with a result favorable to our interests.
- *Amending the 1909 Boundary Waters Treaty to bar new diversions and consumptive uses.* The treaty power is supreme. The President can negotiate treaties that supersede even restrictions of the interstate commerce clause. You should propose that this 92-year-old document be updated to bar new diversions and consumptive uses, or that allow the Great Lakes states to veto such projects. This capitalizes on the goodwill fostered by the International

Joint Commission and the Treaty and perhaps provides the final and ultimate defense needed to protect the Lakes.

As always, Governor, I stand ready to answer any questions you have on this recommendation, and I appreciate your strong support of responsible, cost-effective environmental policies.

Appendix B

Existing Diversions in the Great Lakes Basin

From the International Joint Commission, *Protection of the Waters of the Great Lakes*, February 2000

	Operational Date	Average Annual Flow (cfs)
Interbasin		
Long Lac (into Lake Superior Basin)	1939	1,590
Ogoki (into Superior Basin)	1943	3,990
Chicago (out of Lake Michigan Basin)	1900[125]	3,200
Forestport (out of Lake Ontario Basin)	1825	50
Portage Canal (into Michigan Basin)	1860	40
Ohio and Erie Canal (into Lake Erie Basin)	1847	12
Pleasant Prairie (out of Michigan Basin)	1990	5
Akron (out of and into Erie Basin)	1998	0.5
Intrabasin		
Welland Canal	1932[126]	9,200
NY State Barge Canal	1918[127]	700
Detroit[128]	1975	145
London	1967	110
Raisin River (Ontario)	1968	2.5
Haldimand	1997	2

[125] The initial diversion was undertaken without federal permit in 1848.
[126] The initial Welland Canal was dug in 1829.
[127] The initial canal, also known as the Erie Canal, was dug in 1825.
[128] This diversion takes water from Lake Huron for use by the City of Detroit water supply.

Appendix C

Excerpts from "Annex 2001," A Supplementary Agreement to the Great Lakes Charter, and Commentary On Draft dated 12/14/2000

"...WHEREAS, the Governors' authority was enhanced by passage of the Water Resources Development Act of 1986 (WRDA), 42 U.S.C. 1962d-20, which states that '...no water shall be diverted from any portion of the Great Lakes within the United States, or from any tributary within the United States of any of the Great Lakes, for use outside the Great Lakes basin unless such diversion is approved by the Governor of each of the Great Lake(s) States,' and which leaves to the Governors the establishment of a standard, along with mechanisms to implement that standard, to guide decision-making regarding out-of-Basin water diversions; and...

"WHEREAS, the Governors and Premiers agree that the authority of the States and Provinces to protect, conserve, restore and improve the Waters and Water-Dependent Natural Resources of the Great Lakes Basin should be permanent, enforceable, and applicable to all withdrawals of the Waters of the Great Lakes Basin; and...

"WHEREAS, the International Joint Commission recognized in its February 22, 2000 report that 'the Great Lakes Charter is an effective arrangement among the Great Lakes states and provinces of Ontario and Quebec' and recommended that 'Without prejudice to the authority of the federal government of the United States and Canada, the Great Lakes States and Ontario and Quebec, in carrying out their responsibilities under the Great Lakes Charter, should develop, within 24 months, with full public involvement and in an open process, the standards and procedures...that would be used to make decisions concerning removals or major new or increased consumptive uses;' ...

"NOW THEREFORE BE IT RESOLVED

"That the Governors of the Great Lakes States and Premiers of the Great Lakes Provinces hereby amend the Great Lakes Charter pursuant to this Annex and agree to:

"I. **Establish a framework for Basin-wide decisions that retains authority within the Basin.** The Governors and Premiers agree to immediately prepare a Basin-wide binding agreement(s), such as an interstate Compact, and such other agreements, protocols or other arrangements between the States and Provinces as may be necessary to create said binding agreement(s) within three years of approval of this Annex...[129]

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[129] It is important to note that Annex 2001 is merely a framework for negotiation of the "binding agreement" references in this section. Although an interstate compact is explicitly mentioned, the Governors and Premiers have not yet committed to using a compact as a vehicle, and have not said whether they would seek to amend the Great Lakes Compact of 1955, which established the Great Lakes Commission, or to negotiate a new compact. Interstate compacts, of course, are subject to U.S. Congressional ratification, once again demonstrating that federal assent, at least, will be required for any

"II. **Establish a new decision making standard.** The aforementioned agreement(s) will include a standard that no State or Province will allow a new or increased withdrawal of the Waters of the Great Lakes Basin, except for those withdrawals deemed to have a *de minimis* impact, unless the applicant for the withdrawal establishes that its proposal, together with the applicant's existing use:

A. Includes implementation of all reasonable and appropriate[130] water conservation measures; and
B. Does not, individually or cumulatively, together with current basin-wide water uses, cause significant adverse impact to the quantity or quality of the Waters and Water-Dependent Natural Resources of the Great Lakes Basin[131]; and
C. Results in an Improvement to the Waters and Water-Dependent Natural Resources of the Great Lakes Basin[132]; and
D. Complies with all applicable laws.

"The Governors and Premiers will determine, during the course of the creation of the aforementioned agreement(s), which water withdrawal proposals may have *de minimis* impact and the mechanism by which individual and cumulative impacts of water withdrawals will be assessed..."

"III. Implement the new standard for interim decisions under the U.S. Water Resources Development Act. Pending the finalization of the agreement(s) outlined in Section I, the Governors of the Great Lakes States agree that they will exercise their authority under the WRDA using the new standard as outlined in Section II...

"...The Governors further agree that any proposed new or increased diversion subject to review under the WRDA during the interim period shall be presumed to have *de minimis* impact and therefore be deemed approved under the WRDA if the proposal meets all of the following criteria:

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effort to control diversions and consumptive uses, although Governor Engler and other elected officials have asserted they want little or no role for the federal government on the issue.

[130] The nongovernmental organization Great Lakes United has advocated the stronger language of "maximum achievable" conservation measures.

[131] Annex 2001 defines "Waters of the Great Lakes Basin" as meaning "the Great Lakes and all streams, rivers, lakes, connecting channels, and other bodies of water, including tributary groundwater, within the Great Lakes Basin." The explicit mention of groundwater is significant; the U.S. Army Corps of Engineers denied that either WRDA or the Great Lakes Charter was meant to apply to groundwater when it reviewed in the late 1990s a mining permit proposal in Wisconsin that diverted Great Lakes Basin groundwater.

[132] Annex 2001 defines "Improvement to the Waters and Water-Dependent Natural Resources of the Great Lakes Basin" as meaning "additional beneficial, restorative effects to the physical, chemical, and biological integrity of the Waters and Water-Dependent Natural Resources of the Basin, resulting from any associated conservation measures above and beyond those required by Section II, or enhancement, or restoration measures undertaken by, or on behalf of the withdrawer." Environmental groups haveobjected to the definition in the context of the full agreement, as it appears to sanction "beneficial, restorative effects" outside the immediate watershed of the proposed new or increased water use. Conceivably, an applicant to divert water from the Minnesota waters of Lake Superior could seek to provide "beneficial, restorative effects" on Lake Ontario, almost 1,000 miles distant.

(i) The net quantitative loss of water to the Great Lakes Basin, taking into account any return flow, is less than one million gallons of water per day on average in any 30-day period,[133] which is less than one one-thousandth of one percent of the average annual renewable capacity of the Great Lakes system...; and

(ii) It is the only practical alternative available; and

(iii) It includes implementation of all reasonable and appropriate water conservation measures; and

(iv) The water withdrawal will be subject to state water withdrawal or diversion permitting and/or regulatory oversight; and

(v) It is necessary for a public water supply system to protect public health and safety.

"The Governors of the Great Lakes States or their duly appointed representatives shall have standing to rebut the presumptions contained [in] this section.

"IV. Develop a decision support system that ensures that the best information is available to Basin citizens, government agencies, and water project proponents... The Governors and Premiers will complete the design of an information gathering system to be implemented by the States in support of this Charter, this Annex, and the agreement(s). This design will include an assessment of available information and existing systems, an identification of needs, and provisions for a better understanding of the role of groundwater, and a plan to implement the ongoing support system...[134]

"V. Make further commitments to continue to improve the Great Lakes water management system. The Governors and Premiers of the Great Lakes States and Provinces further commit to:

"...B. Seek (where necessary) and implement legislation establishing programs to manage and regulate new or increased water withdrawals from the Great Lakes Basin...[135]

"VI. Implement the Great Lakes Charter of 1985 and Annex 2001. The Governors and Premiers reaffirm that all provisions of the Charter will continue in full force and effect, except that to the extent inconsistent herewith the terms of this Annex shall control. This Annex shall be effective during the interim period between the date on

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[133] The 1985 Great Lakes Charter requires regional notice and consultation on proposed new consumptive uses and/or diversions greater than 5 million gallons per day average in any 30-day period; thus the proposed de minimis standard, it can be argued, is more protective.

[134] While attracting the least attention of any key feature of Annex 2001, implementation of this clause will be crucial to its success. As discussed in this thesis, information on such issues as the interrelationship of groundwater to the Great Lakes and on the economic and ecological effects of permanently lowered water levels will be helpful, if not indispensable, in legal arguments against out-of-Basin diversions or exports. So will an accurate, comprehensive registry and database on major water uses.

[135] This language would appear to commit the State of Michigan to enact a water use permitting statute for all major consumptive uses and/or diversions. However, the State was required to have permitting authority under the 1985 Great Lakes Charter, and despite its absence, was permitted to participate in the regional prior notice and consultation process on major new uses and diversions.

which all Great Lakes Governors and Premiers have completed signing this Annex and the effective date of the new agreement(s) aforementioned in Section 1. This Annex shall expire no later than three years from the date on which this Annex is [signed] by all Great Lakes Governors and Premiers…"

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