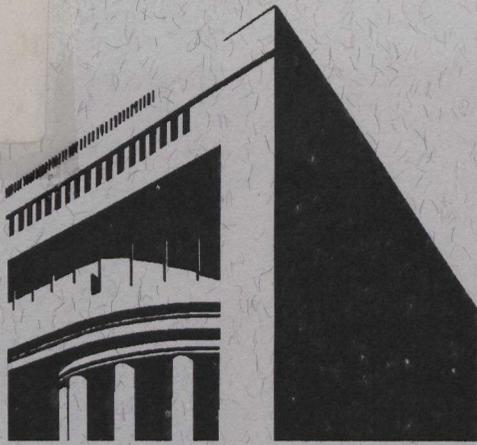


doc
CA1
EA980
97N25
ENG



Canadian Studies Grant Programs

The New Politics of Great Lakes Water
Diversion: A Canada-Michigan Interface

James Hill
Central Michigan University, Mt. Pleasant

Canadian Embassy/Ambassade du Canada
Washington, D.C.

1997

9709 907

This manuscript is a product of the Canadian Studies Research Grant Program. The program promotes research in the social sciences, journalism, business, trade, environment, and law with a unique relevance to Canada, or in the context of the bilateral or North American relationship; and the social, cultural, political, and economic issues that impact on these relationships in the 1990s.

Research grants are designed to assist individual American scholars, a group of scholars, and/or scholars working with a cooperating Canadian institution, in writing an article-length manuscript of publishable quality that contributes to the development of Canadian Studies in the United States and reporting their findings in scholarly publications.

According to the terms and conditions of the grant, the rights of the manuscript remain the exclusive property of the researcher. Copies of the manuscript are provided to the Embassy and the Department of Foreign Affairs and International Trade.

James P. Hill
Director

Center for Applied Research and Rural Studies

CA
CA 090

February 24, 1997

Dept. of External Affairs
Min. des Affaires extérieures
FEB 24 1997
RETURN TO DEPARTMENTAL LIBRARY
RETOURNER A LA BIBLEIOTHEQUE DU MINISTERE

THE NEW POLITICS OF GREAT LAKES WATER DIVERSION: A CANADA-MICHIGAN POLITICAL INTERFACE¹

The New Politics of Great Lakes Water Diversion: A Canada-Michigan Interface

**Submitted to complete the
requirements of the 1995-96
Canadian Studies Research Grant**

James P. Hill

Director

Center for Applied Research and Rural Studies

February 24, 1997

¹The research for this article was funded in part by a research grant from the Canadian Embassy.

²Charles, Anne, Letter to Governor John Engler, 14 August, 1991 concerning the proposed Lowell, Indiana diversion.

THE NEW POLITICS OF GREAT LAKES WATER DIVERSION: A CANADA-MICHIGAN POLITICAL INTERFACE¹

At first glance, the troubling question of whether or not to divert the water of the Great Lakes to other water shortage areas of the nation appears to be, to paraphrase Hamlet, quite simple: to divert or not to divert, that is the question. And, despite the fact that the Great Lakes constitute 18% of the world's supply of fresh surface water and almost 95% of the U.S. fresh surface water, the uniform response the Great Lakes states through the 1980's has been equally simple: no diversion to other sections of the country for development purposes. Similarly, the position of Canada on water diversion according to the Consul General remains, "We are opposed to all diversions from the Great Lakes to meet the needs of communities outside the basin."²

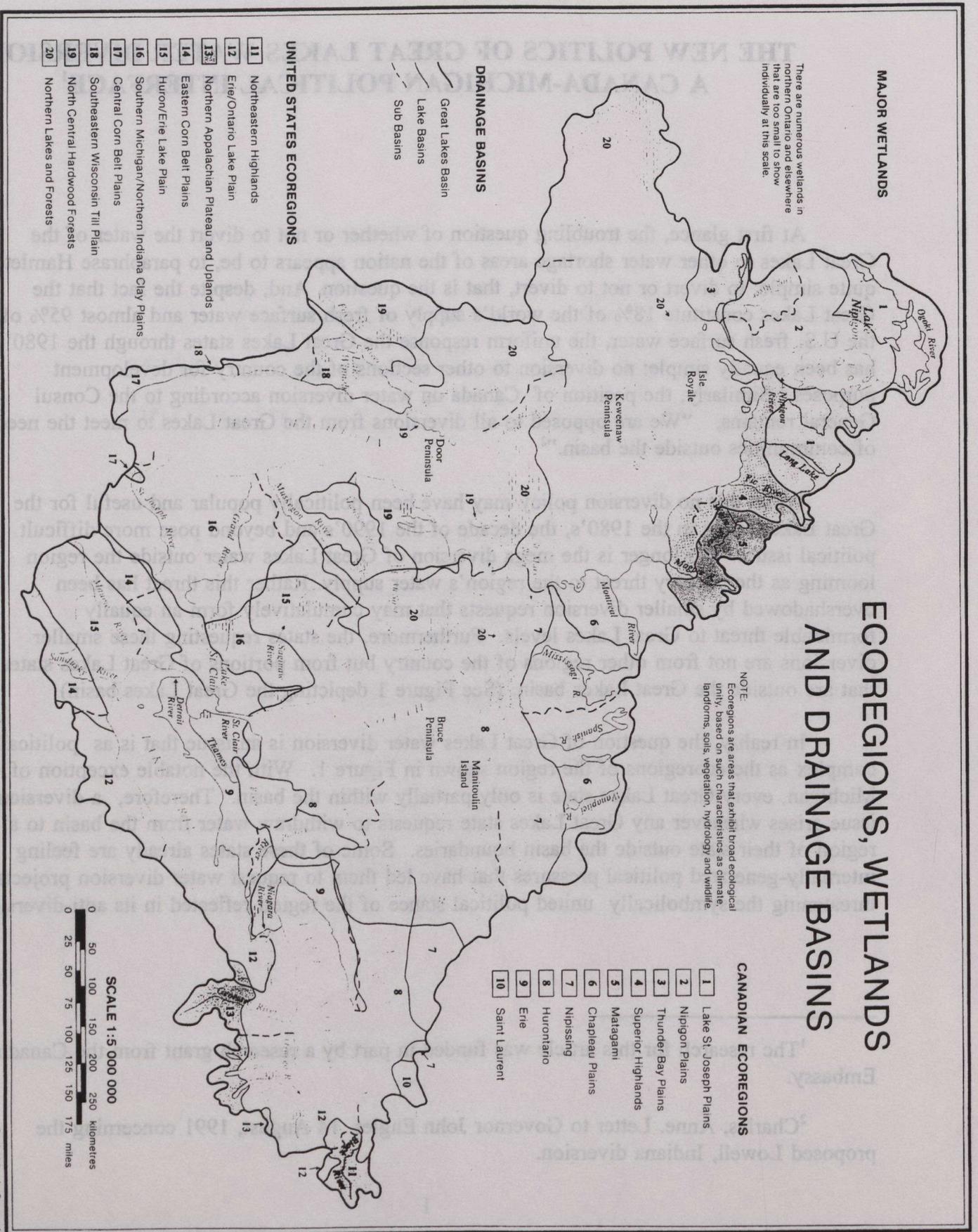
While this no diversion policy may have been politically popular and useful for the Great Lakes states in the 1980's, the decade of the 1990's and beyond pose more difficult political issues. No longer is the mega diversion of Great Lakes water outside the region looming as the primary threat to the region's water supply. Rather this threat has been overshadowed by smaller diversion requests that may cumulatively form an equally formidable threat to Great Lakes levels. Furthermore, the states requesting these smaller diversions are not from other regions of the country but from portions of Great Lakes states that are outside the Great Lakes basin. (See Figure 1 depicting the Great Lakes basin)

In reality, the question of Great Lakes water diversion is an issue that is as politically complex as the ecoregions of the region shown in Figure 1. With the notable exception of Michigan, every Great Lakes state is only partially within the basin. Therefore, a diversion issue arises whenever any Great Lakes state requests to withdraw water from the basin to a region of their state outside the basin boundaries. Some of these states already are feeling internally-generated political pressures that have led them to request water diversion projects, threatening the symbolically united political stance of the region reflected in its anti-diversion

¹The research for this article was funded in part by a research grant from the Canadian Embassy.

²Charles, Anne. Letter to Governor John Engler. 14 August, 1991 concerning the proposed Lowell, Indiana diversion.

Figure 1



water policy.³

With increasing regional consumptive use⁴ pressures on a surprisingly fragile Great Lakes water supply⁵, the de facto political strategy facing the region's stakeholders has evolved from a policy of blanket denial of out-of-basin diversions to one whose aim is to ensure that new diversions do not permanently compromise the water levels necessary to maintain the ecological integrity of the basin. Needless to say, this new political strategy is considerably more complicated than the historical no diversion strategy and, consequently, is the focus of this article.

Drawing upon past and current survey research and position papers of the various stakeholders in the Great Lakes basin as well as official correspondence, this article explores the political dimensions of water diversion in order to identify politically acceptable criteria for evaluating future water diversion proposals. In the process of identifying these criteria, the author will explore the legal and political changes that have led to a political environment more likely to be sympathetic to diversion projects. Canada and Michigan, as the two governmental entities most affected and thus most sensitive to diversion projects⁶, will be compared to determine how water diversion criteria can be crafted to meet their individual and sometimes divergent water diversion political strategies.

The Rise and Demise of the Historic Great Lakes Anti Diversion Strategy

Before the approval of the Pleasant Prairie, Wisconsin, water diversion project in 1989, the Great Lakes had only five existing diversions⁷. The five diversions have had a long history associated with the development of the region and only two of them actually divert water out of the basin. Despite the interstate and international nature of the Great Lakes and thus the potential preemptive authority of the U.S. government, the riparian states of the Great

³Moskal, Jerry. "Canada, 8 states vow to fight lakes diversion plan", Lansing State Journal, 8 May, 1983: p 1B.

⁴For purposes of this article the term consumptive use of water is water withdrawn or withheld from the Great Lakes by entities within the Great Lakes basin while the term diversion is the transfer of water from the Great Lakes to another watershed. In 1992, consumptive use of water in the Great Lakes Basin increased by 37% over the previous year.

⁵It is estimated that only one percent of the waters of the Great Lakes are renewed each year.

⁶It is estimated that Michigan and the province of Ontario constitute 45% of the total consumptive use of Great Lakes water.

⁷The Long Lac and Ogoki (Canada), the Lake Michigan diversion in Chicago, the Portage Canal in Wisconsin, and the New York state Barge Canal.

Lakes historically have exercised substantial authority in the region's water policy, particularly in the area of water diversion issues.

The history of Great Lakes water resources management (or mismanagement) is beyond the scope of this paper.⁸ However, suffice it to say that the region has been considered as a source of water for a host of mega diversion projects ranging from coal slurry pipelines in the West to a source of drinking water for New York City.⁹ From state antiexportation statutes¹⁰ to the "watershed limitation of eastern riparian law, the states of the region have successfully forestalled major diversion projects dating back to the 1960's, arguing that these diversions would not be cost effective; and, more importantly, would permanently lower Great Lakes water levels, leading to a series of additional impacts including reduced hydroelectric power output; shallower navigation channels; loss of productive coastal wetlands; reduced shoreline, dockage and property values; and loss of fish spawning grounds.

The regional no diversion strategy seemed to have made the Great Lakes water relatively safe from major interstate diversions unless they were accomplished by interstate compact or congressional allocation.¹¹ As one water expert observed, "As a political matter, neither Congress nor the states would act affirmatively (on a major interstate diversion) unless the area of origin consented to the transfer."¹²

⁸For an interesting and concise overview of Great Lakes water management, see "A new Era for Regional Water Resources Management: A Great Lakes Case Study", by Michael Donahue, the 1996 Wayne S. Nichols Lecture delivered at Ohio State University, Columbus Ohio on November 14, 1996.

⁹The Grand Canal project was a proposal to connect the Hudson Bay and the Western U.S. with the Great Lakes, which would serve as a storage basin for water to be tapped when needed (proposed in the late 1950's through the 1980's). The concept of linking New York City with Lake Ontario water was proposed in the mid-1960's and the mid-1980's. Other proposals have included a coal slurry pipeline proposal linking Lake Superior with Wyoming, a North American Water and Power Alliance plan in the mid-1960's linking the Great Lakes with the Mississippi and Hudson River to Mexico, and other proposals to meet the needs of water shortage western states.

¹⁰Michigan passed such an embargo law on out-of-state diversions (the Michigan Great Lakes Preservation Act, P.L. 130) which became effective August 2, 1985.

¹¹Goldfarb, William. *Water Law*, 2d ed. Chelsea, Michigan: Lewis Publishers, 1988. p. 57.

¹²*Id.*

Indeed, the U.S. government historically has shown sensitivity to Canadian as well as Great Lakes concerns about major water diversions. In 1954, President Eisenhower vetoed a bill to increase the Chicago diversion in part because of Canadian concerns.¹³ In 1976 the U.S. Department of State advised against a bill to authorize an increased diversion at Chicago because of what it perceived were legitimate Canadian concerns. In short, the Great Lakes seemed secure in protecting its water from major out of basin water diversions despite the precarious nature of state legal authority.

In 1982, the U.S. Supreme Court struck down a Nebraska anti-exportation water statute and ruled that groundwater was an article of interstate commerce, weakening one line of state defense to water diversion and potentially opening the door to new Congressional intervention.¹⁴ Subsequent court cases indicated a need for an evenhanded approach to in-state and out-of-state water users in state water withdrawal statutes. The response of the Great Lakes states and the premiers of Ontario and Quebec was to sign a Great Lakes Charter in 1985. Principle IV of the Charter provides the following prior notice and consultation provision:

It is the intent of the signatory States and Provinces that no Great Lakes State or Province will approve or permit any major new or increased diversion or consumptive use of the water resources of the Great Lakes Basin without notifying and consulting with and seeking the consent and concurrence of all affected Great Lakes States and Provinces.

* * *

Consultative Procedures. The principle of prior notice and consultation will apply to any new or increased diversion or consumptive use of the water resources of the Great Lakes Basin which exceeds 5,000,000 gallons (19 million liters) per day average in any 30-day period.

Although not legally binding like an interstate compact, the Great Lakes Charter represented a symbolically united political stance against out of basin diversions. The basin was also protected by Article III of the Boundary Waters Treaty of 1909 which provided:

It is agreed that, in addition to the uses, obstructions, and diversions heretofore permitted or hereafter provided for by special agreement between the Parties hereto, no further or other uses or obstructions or diversions, whether temporary or permanent, of boundary waters on either side of the line, affecting the natural level or flow of the boundary waters on the other side of the line, shall be made except by authority of the United States or the Dominion of Canada within their respective

¹³Whitehead, M. Digest of International Law, volume III, pp. 790-791.

¹⁴458 U.S. 941, 102 S. Ct. 3465, 73 L. Ed. 2d. 1254 (1982).

jurisdictions and with the approval, as hereinafter provided of a joint commission, to be known as the International Joint Commissionnor are (these) provisions intended to interfere with the ordinary use of such waters for domestic or sanitary purposes.

However, it should be noted that this treaty provision applies only to diversions that affect the “natural level or flow of the boundary waters”, thus limiting its applicability to large scale diversions and to “boundary waters”, which the U.S. argues does not include Lake Michigan.¹⁵ These two caveats would prove to be important limitations on the ability of Canada to control the issue of smaller scale diversions from Lake Michigan.

Finally, the anti-diversion trilogy of authority was completed by provision added to the Water Resources Development Act of 1986, which included the following provision:

*“(d) 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 a diversion is approved by the Governor of each of the Great Lakes States”. [Illinois, Indiana, Michigan, Minnesota, Ohio, Pennsylvania, New York, and Wisconsin]*¹⁶

Despite continued water shortage issues in other regions of the United States and the shrinking political power of the Congressional delegation to stop repeal or modification of the statutory veto Congress granted the basin’s governors, the Great Lakes states generally turned their attention to water quality issues¹⁷ and left unarticulated how to handle requests for diversions utilizing their newly acquired veto authority.

However, the seeds of political disunity in the region became apparent even before Congress granted gubernatorial veto power to the Great Lakes states. Preserving water levels against water diversions in 1985 and 1986 when all of the Great Lakes states except Lake Ontario reached their highest level in a century raised mixed sentiments by shoreline property owners victimized by beach erosion, who saw water diversion as a “quick fix” for reducing the damaging high water levels. In 1988, the Governor of Illinois was the first governor to officially to break ranks among the region’s states on the no diversion regional strategy by requesting the U.S. Corps of Engineers to increase the diversion of water at Chicago to handle drought-induced low water navigation problems in the Mississippi River (affecting ships in Illinois connecting waters). The response was swift from Canada, with the headline in a

¹⁵Since Lake Michigan is entirely within U.S. waters, it is argued that the IJC has no jurisdiction over diversions from that lake, even though it flows into the boundary waters.

¹⁶42 USC sec. 1962d-20 (Water Resources Development Act of 1986, sec. 1109).

¹⁷However, as U.S. Supreme Court Justice Sandra Day O’Connor noted in *Jefferson County Public Utility District v. Washington* No. 92-1911, the distinction between water quality and water quantity is an artificial one. (May 31, 1994)

Canadian paper calling such a proposal “dangerous”¹⁸ and the U.S. Corps later withdrew its request for the increased temporary diversion.¹⁹

Despite the fact that this 1988 Corps diversion attempt was unsuccessful, it was nevertheless clear that the political solidarity of the region’s states and provinces upon which the Great Lakes Charter depended was weakening. Furthermore, the fact that the Water Resources Development Act of 1986 granted veto power to U.S. governors reduced the ability of the Canadian provinces to influence Great Lakes diversion issues in Lake Michigan, contrary to their equal status to states under the Great Lakes Charter.

What may have inflicted a mortal wound to the traditional Great Lakes water diversion ban strategy came from a tiny town known as Pleasant Prairie, Wisconsin, where a request for Lake Michigan water to meet safe public drinking water needs first officially pitted Great Lakes states against each other over a new out of basin water diversion.

What made this situation unusual was that Pleasant Prairie, although a part of the Great Lakes state of Wisconsin, was considered geographically outside the Great Lakes basin and thus subject to gubernatorial veto power by any of the Great Lakes state governors. While the size of the diversion was small and by itself unlikely to have any significant impact on Great Lakes water levels, the region’s historic no diversion policy was clearly threatened from a precedential standpoint by Wisconsin and a number of other states sympathetic to Pleasant Prairie’s plight (and perhaps foreseeing similar situations in their own states). Only Michigan (which was wholly within the Great Lakes basin and, unlike Canada, possessed a Congressionally empowered veto) had the luxury of looking at this project from a regional versus more parochial perspective.

PLUGGING THE DIKE OF DISSENSION: WATER DIVERSION POLICY ON HOLD

The debate over Pleasant Prairie’s water diversion request in 1989 was a painful one, as correspondence among the region’s governors will attest. Without delving in to the details of the project, the outcome of the project was a half-hearted approval (or perhaps better stated a lack of formal objection) to the proposal by the region’s governors for a variety of reasons. For example, Michigan abstained from using its gubernatorial veto, believing that

¹⁸“Proposal to divert Great Lakes water called dangerous.” Toronto Star, 19 March, 1987: A 10.

¹⁹The U.S. Army Corps of Engineers initially cited their authority to increase the Chicago diversion in navigational emergencies under USC Title 33, section 1, but still sought Great Lakes Governor approval under the WRDA of 1986 cited in footnote 15.

this would be a temporary diversion and that a veto would likely anger Wisconsin and other states supporting the Wisconsin petition. Canada had no formal role in the final decision to permit this diversion as they had no veto authority, but they did express their concern in their role as a signatory of the Great Lakes Charter.

However, it was not long after the Pleasant Prairie diversion project had been "approved" that the region's governors were faced with a similar request from another community -- Lowell, Indiana -- located outside the basin but within another Great Lakes state. It became apparent from this proposal and several others on the horizon that the ad hoc policy of Pleasant Prairie could not be extended indefinitely without totally undermining the no out of basin water diversion policy altogether.

For Michigan, the problem was even more acute. As one news reporter observed: "Because Michigan lies almost entirely within the basin, it has incredible clout. The state will never need the other states' approval to use water."²⁰ However, as G. Tracy Mehan, the Director of Michigan's Office of the Great Lakes also observed in the same article, "But if Michigan vetoes all their (other Great Lakes states) proposals, the other states may become so frustrated that they break away from a united stand on water diversions."²¹

Like Pleasant Prairie, the Lowell diversion project raised public health drinking water concerns. While Lowell was distinguishable from Pleasant Prairie on several fronts including its permanent nature, the real issue was a political one of where to draw the line on these Great Lakes state diversion requests. It was clear from the transcripts of the hearings on the Lowell diversion request that most states, notably with the exceptions of Michigan and New York, were sympathetic to Lowell's plight.

With New York unlikely to cast a veto against the Lowell request for political reasons,²² Great Lakes United member Bruce Kershner summarized the unfortunate position Michigan faced if it vetoed the Lowell diversion request:

"Michigan is going to be the scapegoat, the seeming villain in all this when in reality, Michigan, because of its central location surrounded by four lakes is the one that is forced right now to take that basin wide position — that basin wide view in being willing to stand up and veto this in spite of the fact that its against the tide of the other states." We think the other states are just not looking at the long term and at the

²⁰Poulson, David. "The Fight for Water." The Ann Arbor News, 4 March 1996: A-1.

²¹Id.

²²Schornack, Dennis. Memorandum to Governor John Engler . 13 August 1991 which outlines Governor Cuomo's likely political rationale for not opposing the Lowell diversion.

ecosystem view.”²³

Accordingly, Michigan’s Governor Engler signaled the formal end of the no diversion Great Lakes regional policy by stipulating specific conditions under which out of basin diversions would receive Michigan approval,

“We are not saying that there are no circumstances under which a proposal to divert Great Lakes water out of basin can be approved. We believe that in order for a diversion proposal to be approved, it must be demonstrated that there is an imminent danger to public health, safety, and welfare, and that there is no prudent or feasible alternative water supply. In addition, such proposals must contain plans to implement meaningful conservation measures. Diversions should be developed with clean water returned to the Great Lakes basin after use.”²⁴

At the Lowell diversion conference, Ontario also moved away from its no diversion stance and stated its specific concerns about the diversion, indicating issues of cumulative impacts, precedent, compensation for loss values due to diversion, a specific approval process, and a moratorium on diversion until a new (and lower) trigger level for diversions is officially established.²⁵

After a May 8, 1992, conference on the Lowell diversion was concluded, Michigan was the only one of the Great Lakes states to veto the Lowell proposal. New York abstained while Ontario and Quebec sided with Michigan and opposed the diversion but had no formal veto power.²⁶ Governor Engler wrote to Governor Bayh indicating that his opposition was based on four criteria: the availability of other water sources, the precedent of a permanent diversion, the lack of a compelling need for this diversion, and the need for water conservation measures and a means to return the used water to the Great Lakes.²⁷

²³“Report on the Disapproval of the Proposed Water Diversion....” op.cit.

²⁴Engler, Governor John. Letter to Indiana Governor Evan Bayh, May 8, 1992.

²⁵ “Report on the Disapproval of the Proposed Water Diversion from Lake Michigan to Lowell Indiana, op. cit., 10.

²⁶Id., at 3, 12.

²⁷Engler, Governor John. Letter to Governor Bayh. 8 May 1992.

Governor Engler and the premiers of both Ontario and Quebec²⁸ tried to steer the water diversion debate away from particular diversion projects and towards the need to develop adequate procedures or criteria to evaluate diversion proposals. However, Michigan lost some of the high ground of advocating water diversion criteria and procedures in the name of Great Lakes water level protection when it approved a Mud Creek Irrigation²⁹ project in 1993. That project would withdraw water from Lake Huron for nonriparian irrigation purposes without the need for regional approval because the project with a small consumptive use, not a diversion.

The Governor was criticized in newspapers³⁰ and by other state governors who argued that Michigan's position on Mud Creek was inconsistent with its position on the smaller Lowell, Indiana project, if the state were truly concerned about water levels and not the semantics of consumptive use versus diversion.³¹ The premier of Ontario wrote to G. Tracy Mehan, the Governor's director of the Office of the Great Lakes, expressing concern about the Mud Creek project and reiterating the need for water diversion criteria:

"I continue to believe in the establishment of effective evaluation criteria before proper consideration can be given to diversions, transfers, and consumptive use proposals."³²

Soon, news of other potential water diversions from Great Lakes states began to emerge, as it was clear that diversions were up for grabs in light of the policy vacuum created by Pleasant Prairie and its successors. In 1996, the City of Akron, Ohio, was the latest applicant for an out of basin diversion from Lake Erie, but Great Lakes United has identified a total of thirteen potential applicants, including at least six sites within the eight Great Lakes states (including Akron) classified as having a high potential for Great Lakes water diversion.³³ In addition, relations among the Great Lakes states were further strained over a

²⁸ Engler, Governor John, Letter to Quebec Minister of the Environment Pierre Parades. 9 December 1993, acknowledging the need for comprehensive water diversion criteria.

²⁹ Authority for Irrigation Districts lie under MCL 279.201 *et. seq.*, P.A. 205 of 1967.

Governor Engler argued that it was the Michigan Natural Resources Commission that approved Mud Creek by a 5-1 vote (the dissenting vote was the writer of this article).

³¹ See letters to Governor Engler from the governors of Ohio (June 15, 1993) and Indiana (June 4, 1993).

³² Mehan, G. Tracy. Letter from Ontario Premier Bob Rae dated February 10, 1994.

³³ In the draft 1996 study tentatively entitled "Enviied Waters: A Study for Great Lakes United", the authors (Carl Bolster and Bruce Kershner identify six sites as high potential for Great Lakes water diversion, including Kenosha-Pleasant Prairie, Lowell-Gary-Hobart,

claim by Michigan and other Great Lakes states that Illinois was diverting more than the 3200 cfs of water from Lake Michigan permitted by U.S. Supreme Court decree, leading to a mediated settlement between Illinois and the other Great Lakes states (with Michigan taking the lead in the mediation) on October 9, 1996.

Most recently, the National Wildlife Federation, the Michigan United Conservation Club (MUCC) and the Wisconsin Wildlife Federation have written to Governor Engler asking that he veto a diversion of groundwater from the Crandon mine in Wisconsin to the Mississippi River, arguing that this groundwater diversion is also covered by gubernatorial veto.³⁴ The environmental groups obviously see Michigan's recent positions on Lowell and the Chicago diversion surplus taking as evidence that Michigan would be the most likely state to protect the region.

It would also seem likely that Canada and its provinces, which have maintained a strict no diversion policy similar to Michigan, might find that Michigan (of all the Great Lakes states) best represents its interests when addressing water diversion issues over which Canada has no veto power. Yet, it is clear that the old facade of Great Lakes unity on water diversion policy is all but gone, and that compromises must be made to avoid the continued political brokering of future water diversion proposals. It is equally clear that the old no diversion policy has a strong symbolic value that still resonates positively among the voters in Michigan and Canada, and thus care must be taken to ensure that modifications of the out of basin water diversion policy are supported by the key stakeholders in Michigan and Canada.

Accordingly, the next section of this article examines the water diversion views of key stakeholders in Michigan and Canada to determine what criteria would be acceptable to adopt in order to reconstitute a politically acceptable, yet protective Great Lakes water diversion policy reflecting the new political realities of the region.

GREAT LAKES STAKEHOLDERS AND WATER DIVERSION POLICY

The official position of Canada and the Council of the Great Lakes governors on the issue of Great Lakes water diversion largely is reflected in the 1995 formal position of the Great Lakes Commission (GLC), created by interstate compact and representing the Great Lakes states including Michigan. The position of the GLC:

Indiana, Waukesha-New Berlin-Milwaukee, Wisconsin, Akron, Ohio, an increase in the Chicago diversion, and New York City.

³⁴National Wildlife Federation, et al.. Letter to Governor Engler. 7 February 1997.

“recognizes that large scale, out of basin water diversions can adversely affect existing uses of the resources and compromise the environment and economic future of the region.”³⁵

Unfortunately, this overly broad policy is no longer useful for specifically addressing the recent and expected future smaller diversions being proposed by the Great Lakes states themselves. However, there continues to be strong public resistance, especially among environmental groups, to developing criteria that would in any way modify this no diversion policy. A 1997 report by the Canadian Environmental Law Association and Great Lakes United recounts the opposition by environmental groups to setting procedures in the original Great Lakes Charter for obtaining approval of diversions. The report chronicles concerns that proposed procedures would form a presumption that diversions were either acceptable or inevitable, and that this controversy led the former Governor Blanchard to delay signing the Charter because of this diversion concern.³⁶

However, there do seem to be some politically acceptable, reoccurring conditions and scenarios that may better define regional diversion policy without creating an overall favorable presumption towards diversion projects. A more specific diversion policy that addresses such issues as emergency health needs, precedent, cumulative water level effects, the long term consequences on the ecosystem, and the lack of solid scientific information regarding diversions are starting points that would make the region's policy less likely to legal challenge on interstate commerce grounds as well as permit evaluation of new projects proposed by Great Lakes states on a less politically divisive basis.

If modifications to the existing Great Lakes water diversion policy were to be formally adopted, what specific criteria would likely be acceptable to both Michigan and Canada? To answer that question requires an understanding of what the major political stakeholders in these two political jurisdictions would accept, as well as the basic predispositions of the governmental subunits of these two political jurisdictions.

To assess the water diversion views of major Great Lakes stakeholders, a combination of previous surveys and studies sponsored by the International Joint Commission as well as a survey conducted for this article in early 1997 of identified stakeholders³⁷ were utilized. The

³⁵Great Lakes Commission. “Great Lakes Guide to Policies, Priorities, and Programs of the Great Lakes Commission,” Ann Arbor, Michigan, 1995: p. 15.

³⁶Farid, Claire, Jackson, John, and Clark, Karen. “The Fate of the Great Lakes”, The Canadian Law Association and Great Lakes United, 10 February, 1997: p. 35.

³⁷Non government Great Lake stakeholders from Michigan and Canada were identified through previous involvement in IJC diversion issues as well as being listed in The Water Network, a May, 1992, report to the IJC identifying major interest groups in the Great Lakes-St. Lawrence River Basin.

focus was on the governmental and non-governmental stakeholders of Michigan and Canada, since these two governments have historically been the most sensitive to basin problems associated with out of basin water diversion projects.

In order to develop a sample of major non-governmental stakeholders in Michigan and Canada, a 1992 directory developed by an IJC work group entitled "Interest Groups in the Great Lakes-St Lawrence River Basin"³⁸ was utilized. Consulting IJC reports and public inputs from IJC hearings, this list was broadened to also include other major groups who have formally participated in Great Lakes water levels/diversion issues in the past 10 years.³⁹ Governmental stakeholders were drawn from a similar 1992 study devised to identify Great Lakes governmental units entitled: "Institutions in the Great Lakes-St Lawrence River Basin."⁴⁰ Specific individuals were identified and targeted within the organizations of both groups of stakeholders for survey responses to ensure that each respondent was indeed familiar with the issues that Great Lakes water diversion raises.⁴¹

To ensure the diversity of stakeholder opinions on Great Lakes water diversion was adequately reflected in this article, the major stakeholders were classified into ten Great Lakes

³⁸The Water Network: Report to the International Joint Commission Water Levels Reference Study (Work Committee 4), "Interest Groups in the Great Lakes-St Lawrence River Basin", May, 1992.

³⁹IJC Sources of information for the views of stakeholders include the Living with the Lakes: Challenges and Opportunities Progress Report plus Annex C and the 10 Work Group reports of Functional Group 3 of this 1989 report, "Annex 3 of the 1993 Levels Reference Study of the Great Lakes-St. Lawrence River Basin : Existing Regulation, System-wide Regulation and Crisis Conditions", a March 7, 1987 report entitled "A Survey of Public Perceptions of Great Lakes Users" by Anne Sudar (Inland Waters) Land Directory, Burlington, Ontario), a 1987 Canadian survey by Mary Gilmore entitled "Summary of Local Government Responses" for the Great Lakes Water Level Study, and an IJC-sponsored group in-depth interview report by Synergy Consultation Services (Judy Walsh and W.A. Weidman, Jr. (which involved 9 cities and 180 individuals).

⁴⁰The Water Network: Report to the International Joint Commission Water Levels Reference Study (Work Committee 4), "Institutions in the Great Lakes-St Lawrence River Basin, May, 1992.

⁴¹By seeking specific individuals who over the past decade had been personally involved in Great Lakes water levels/diversion issues, 81 of the 268 individuals identified were not able to be located. Of the remaining 187 individuals surveyed, 71 responded. The intent of the survey was not to devise a random sample but rather to obtain the views of those most involved or most interested in the issue of Great Lakes water diversion.

interest groups which had been identified in the 1989 IJC report.⁴² The views on Great Lakes water diversion of each of these 10 interest groups were extrapolated from the work group papers of this 1989 IJC report as well as other supplementary surveys and public hearing reports recorded by the IJC since the Great Lakes high water levels crisis of 1986. While some of these groups obviously reflect a variety of viewpoints because of the many interests clumped into specific categories (i.e. industry or transportation), Table 1 reflects a general summary of the basic concerns of the group and therefore their general position on issues related to Great Lakes water diversion.

TABLE 1

Interest Group Concerns and Positions on Great Lakes Water Diversion

Interest Group	Position
Agriculture	Concerned over high water and flooding with some members in favor of regulating water levels to control flooding, which could include water diversion.
Commercial Fishing	Generally opposed to diversion as it is seen as unnecessary and this group has learned to live with fluctuations in water levels.
Commerce/Industry	Most members feel diversion out of the basin would hurt industry. They generally favor high water levels. Members in the middle of the region some form of regulation which could include some form of regulation while those in the St. Lawrence River and connecting channels oppose water level regulation.
Electric Power	Generally favors high water levels and a stable water level with limited fluctuations. Generally opposed to the Chicago diversion and other diversions that would lower water levels or bypass hydroelectric plants.
Environmental	Strongly against diversion or management of water levels.

⁴²In the "Living with the Lakes: Challenges and Opportunities" Progress Report to the IJC, 10 work groups were formed to reflect the interests of what were perceived as the 10 major interest groups in the region. The 10th group was non federal units of government. These individual reports were reviewed to derive the views of each of these groups on Great Lakes water diversion, although the focus of the study was on the more general issue of Great Lakes water levels.

Native People	Supports natural control of water and believe there is a need to increase understanding of Great Lakes natural system before considering any water flow restrictions
Non Riparian Recreation	A divided group with boaters favoring maintaining high water levels while the remainder prefer lake fluctuation. Generally support diversion to protect beaches and to maintain water levels.
Riparians	Support controlling water fluctuation to stabilize water levels and support using the Chicago diversion as an emergency release valve. Lake Superior riparians opposed diversion while middle lakes riparians favor diversion. Opposition to water diversion for economic development purposes.
Transportation	While there are a variety of subcategories in this group, they generally favor high water levels and do not support efforts by government to manage water levels.
Government (Non-federal)	Generally favors natural water level fluctuation , concerned about Chicago diversion precedent, but favor intra basin water transfers.

As is apparent from the general summary of interest groups in Table 1, the region is divided over the issue of water diversion because of the variety of impacts that high or low water levels will have on each group, not to mention the overall environmental impact of permanently lowering the lake levels. However, the division of the opinion primarily arise over whether or not opposition to water diversion should be unconditional.⁴³ The general concerns of the groups who appear to unconditionally oppose water diversion are fears of permanently lowering lake levels and the economic and environmental consequences that would follow such a lowering. Those groups who are not unconditionally opposed to water diversion seem to be more concerned about maintaining high water levels for economic reasons.

Although this divided opinion may seem to be an obstacle to devising any type of regional diversion policy, one must take into account not only the formal positions of each group but also identify specific conditions and scenarios where the stakeholders could find

⁴³The three groups most likely to support some form of out of basin diversion (agriculture, riparians, and non-riparian recreational groups) are not considered to be as powerful in the water diversion debate from a political standpoint as other actors such as transportation, electric power, and environmental groups (See generally The Water Network "Institutions...." report cited in footnote 36).

agreement on favorably evaluating certain types of water diversion projects without altering their overall positions for or against Great Lakes water diversion.

Accordingly, the hearing transcripts, position papers, government correspondence and staff memorandum of water diversion proposals in Pleasant Prairie, Wisconsin and Lowell Wisconsin were reviewed to determine the specific positions of governments, organizations and individuals on these proposals. From this information and a review of potential future diversions identified by Great Lakes United⁴⁴, a list of conditions and potential scenarios were created in a survey instrument. The survey instrument was then sent to individuals identified with the groups listed in Table 1 to explore commonalities among the major Great Lakes stakeholders.

While the number of respondents to the survey was relatively small⁴⁵, the survey nonetheless received responses from all of the targeted groups except agriculture.⁴⁶ Survey responses to a question asking individuals to describe their organization's views on Great Lakes water diversion confirmed the earlier findings on Table 1. As will be discussed further in another section of this article, information gathered indicates that all of these groups appear to have de facto criteria that would permit them to support some type of diversion project.

Another survey question outlined 10 potential conditions and asked survey respondents to indicate how these conditions would affect their organization's position on out of basin, Great Lakes water diversion projects. A follow-up question asked the respondents to identify which of those conditions would be most influential in terms of supporting or opposing a proposed Great Lakes water diversion project. A list of the 10 conditions are listed in Table 2.

⁴⁴"Envied Waters", op. cit.

⁴⁵ Of the 187 valid survey instruments sent, 71 surveys were returned as of January 20, 1997

⁴⁶Agricultural groups have not been active in the water diversion issue. Flooding issues in general are their concern.

TABLE 2

**List of conditions that might affect an interest group's position on out of basin
Great Lakes water diversion projects**

- a. The amount of water diverted by the project would be returned to the Basin either from some other source or in the form of treated wastewater (no net loss of water)
- b. The project is temporary in nature and will be terminated at a set date in the future.
- c. There is no feasible alternative to the water diversion project in order to meet the benefitting community's current water needs.
- d. The water diversion project will have no discernible effect on Great Lakes water levels.
- e. The water diversion project is necessary to meet a crisis or emergency situation.
- f. There are no direct adverse environmental impacts associated with the construction or operation of this proposed water diversion project.
- g. The water diversion project is privately owned and operated rather than publicly owned and operated.
- h. The water diversion project is primarily for the benefit of residential rather than industrial users.
- i. The water diversion project is primarily for the benefit of a community located in a Great Lakes state rather than a community located in a non Great Lakes state.
- j. The water diversion project is proposed for the benefit of a community that already has in place a plan for water conservation, water treatment, and managed growth.

The responses to the survey were divided into Canadian and Michigan⁴⁷ respondents to detect any differences in response based upon the group's political jurisdiction. Both Canadian and Michigan non governmental respondents generally agreed that the conditions that would increase their organization's support for a water diversion were as follows:

- a. The amount of water diverted by the project would be returned to the Basin either from some other source or in the form of treated wastewater (no net loss of water).

⁴⁷In a few cases, respondents were federal or interstate in nature and represented states in addition to Michigan.

- d. The water diversion project would have no discernible effect on Great Lakes water levels.
- e. The water diversion project is necessary to meet a crisis or emergency situation.
- f. There are no direct adverse environmental impacts associated with the construction or operation of this proposed water diversion project.
- j. The water diversion project is for the benefit of a community that already has in place a plan for water conservation, water treatment, and managed growth.

Canadian and Michigan government survey respondents generally agreed with the non governmental respondents that the conditions that were likely to increase their organization's support of a water diversion project were (a) no net loss, (d) no discernible effect on water levels and (f) no adverse environmental impact, but conditions (e) and (j) would have no effect on their support or opposition to a diversion project.

Of these five conditions identified, the criteria that would equip existing diversion policy was criteria to address small, out of basin water diversion projects by Great Lakes states would be (a) no net loss of water, (e) to meet a crisis or emergency situation, and (j) a community with water conservation and managed growth policies. The other two conditions dealing with adverse environmental effects and discernible effects on Great Lakes water levels (while very important for any policy) are more likely to be used to evaluate large scale rather than small scale water diversion projects.

When both the government and non government groups were asked to identify the criteria in Table 2 that were most important to their respective organization's position on a water diversion project, the non governmental and governmental Canadian respondents (but not the Michigan respondents) added conditions (b) and (c):

- b. The project is temporary in nature and will be terminated at a set date in order to meet the benefitting community's current water needs.
- c. There is no feasible alternative to the water diversion project in order to meet the benefitting community's current water needs.

It should also be noted that these conditions were listed by Michigan interests as generally having no impact on their policies; hence they would not likely be opposed by Michigan interests.

Thus, it would appear that survey respondents in Michigan and Canada generally agree upon at least three specific conditions applicable to large and small scale projects which could affect the predisposition of the groups to support a water diversion project. In addition, there are four other conditions that are supported by at least two of the four groups (Canadian and

Michigan government and non government groups) and not viewed negatively by the remaining groups. Since many of these groups have been identified as having considerable influence on Canadian and Michigan governmental policy on the Great Lakes⁴⁸, it could be argued that these conditions could also sway official Michigan and Canadian governmental positions on specific diversion projects. In addition, Canada would seem to be more inclined to limit these diversion projects even further by adding the temporariness and no feasible alternative conditions.

The next step in the 1997 survey was to identify a series of specific, out of basin water diversion scenarios that include and combine the conditions in Table 2 based upon past and likely future diversion/consumptive proposals by both Great Lakes and non Great Lakes states. Some of these scenarios also directly address the interests of specific Great Lakes stakeholders to test their acceptability among all of the region's major stakeholders. A list of these 13 scenarios is provided in Table 3

TABLE 3

Out of Basin Water Diversion Scenarios

-
- a. The proposed water diversion project was developed to address dangerous, natural contamination of public water supplies and there is not feasible water supply alternative.
 - b. The proposed water diversion project was developed to address dangerous, man-made contamination of public drinking water supplies and there is no feasible water supply alternative.
 - c. The proposed water diversion project is necessary for a community to meet its current, essential water supply needs because all nearby sources of groundwater and surface water have been exhausted.
 - d. The proposed water diversion project is necessary to respond to a natural crisis (flood or drought) an is temporary in nature.
 - e. The project has become a diversion because the community drawing water from the Great Lakes proposes to discharge its treated wastewater outside the basin for financial reasons.
 - f. The proposed water diversion project would allow small, out of basin cities to hook up to cities already drawing water from the Great Lakes basin in order to avoid the high cost of

⁴⁸See discussion of the considerable political influence of survey respondents in the transportation and electric power groups in The Water Network, "Interest Groups....", op.cit.

constructing a new water facility.

g. The proposed water diversion project would help stabilize the fluctuating high water levels adversely affecting shoreline property owners.

h. The primary purpose of the proposed water diversion project is to advance an environmentally beneficial activity (e.g. energy conservation, recycling, etc.)

i. The proposed water diversion project would open the Great Lakes to increased world shipping, economically stimulating the region as a whole.

j. The proposed water diversion project would involve the transfer of Great Lakes water from one Great Lake to another in order to reduce water transportation costs, bypassing a Great Lake in the process.

k. The proposed water diversion project would increase the ability of the benefitting community to handle anticipated future growth.

l. The proposed water diversion project would be used for agricultural irrigation purposes in order to enhance the ability of the benefitting area to increase its agricultural productivity or the variety of crops able to be grown in that area.

m. The proposed water diversion project would economically enhance a general industry associated with the Great Lakes region, such as the hydroelectric power, transportation and navigation, or recreational/sports industries.

Among the non governmental stakeholder groups, there was consensus by both Canadian and Michigan survey respondents that scenarios would influence their organization's position on water diversion projects:

(a) The proposed water diversion project was developed to address dangerous, natural contamination of public water supplies and there is no feasible water supply alternative.

(b) The proposed water diversion project was developed to address dangerous, man-made contamination of public drinking water supplies and there is no feasible water supply alternative.

Only Canadian governmental groups agreed that (a) would affect their organization's water diversion policy, while Michigan and Canadian governmental groups indicated that three different scenarios would affect their organization's water diversion policy:

(d) The proposed water diversion project is necessary to respond to a natural crisis (flood or drought) and is temporary in nature

(i) The proposed water diversion project would open the Great Lakes to increased world shipping, economically stimulating the region as a whole, and

(m) The proposed water diversion project would economically enhance a general industry associated with the Great Lakes region, such as hydroelectric power, transportation and navigation, or recreation/sports industries.

In general both Michigan and Canadian non governmental interests indicated (with the exception of the electric power, transportation, and some commercial interests) indicated economic scenarios (i) and (m) would decrease the likelihood that their organizations would support a water diversion project under those scenarios. Despite the statistical limitations of this survey, the views of non federal and state governmental units versus non governmental groups differ significantly on the issue of economic benefits of a water diversion project and thus indicate the growing importance of economic considerations by non federal governmental units in evaluating any water diversion project.

Michigan (but not Canadian) non governmental groups indicated that 2 additional scenarios would increase the likelihood that their organization would support a Great Lakes water diversion proposal:

(c) The proposed water diversion project is necessary for a community to meet its current, essential water supply needs because all nearby sources of groundwater and surface water have been exhausted, and

(g) The proposed water diversion project would help stabilize the fluctuating high water levels adversely affecting shoreline property owners.

However, both Canadian non governmental and Michigan governmental interests indicated that scenario (g) would decrease the likelihood that they would support a Great Lakes water diversion project, leaving scenario (c) as the only one not receiving opposition.

Finally, all stakeholders were asked (whether they were unconditionally opposed to water diversion or not) what criteria should be used to evaluate whether or not an out of basin Great Lakes water diversion project should be approved. Non governmental group criteria proposed in addition to conditions cited in Table 1 are presented in Table 4.

TABLE 4

**Specific Criteria for Evaluating Out of Basin Great Lakes Water Diversion Projects:
Summary of Written Responses by Individual Non governmental Survey Respondents ⁴⁹**

1. Water to be returned in as good a condition (or better) than when it was withdrawn.
 2. Legitimate public health reasons for the diversion must be demonstrated.
 3. The diversion must not be economically harmful, and/or compensation must be paid for injury to Great Lakes businesses hurt by the diversion.
 4. The diversion approval process must be jointly administered by the U.S. and Canada.
 5. The cumulative and long range impact of the project must be considered in the process.
 6. There must be sufficient proof that an emergency exists to justify a diversion.
 7. The project should enhance the ecosystem and not be justified on the basis of economic growth alone
 8. Does not set a precedent that will undermine the ability to stop future diversions.
-

Table 5 provides the written governmental responses of Canada and Michigan to the question of what criteria should be used to evaluate our of basin water diversion projects,

TABLE 5

**Specific Criteria for Evaluating Out of Basin Great Lakes Water Diversion Projects:
Summary of Written Responses by Individual Governmental Survey Respondents**

1. Retains or enhances the water quality of the lakes.
 2. No adverse environmental impact, particularly on wetlands, fish spawning, exotic species.
-

⁴⁹These are the combined responses of Canadian and Michigan nongovernmental group responses. References to conditions already identified as of interest to all stakeholders are not repeated in this table.

3. Affect on public health by contamination problems and lack of dilution capability of water.
4. The long term impact of the project on the regional economy and tourism.
5. The nature of the precedent set by the diversion.
6. The impact on the changing flow patterns of the lakes.

Summarizing and classifying these written specific criteria, the non federal governmental non governmental interests of both Canada and Michigan indicates the following criteria considerations in addition to the conditions and scenarios previously described:

1. A skepticism of the need for a project (legitimate health reasons and proof of an emergency)
2. A concern that the diversion not be economically harmful to the region, that environmental and economic impacts be considered, and that compensation be considered
3. The quality of returned water and cumulative, long range environmental impacts be considered
4. Diversion decisions be U.S. and Canada decisions
5. Concern for precedents undermining the ability to stop future diversion projects

To incorporate these previously described conditions and scenarios into a formula for identifying politically acceptable criteria for evaluating Great Lakes water diversion projects, the following test was used:

The four combined Great Lakes interests are defined as:

- 1 Michigan non governmental interest (Mng)
2. Michigan governmental interests (mgov)⁵⁰

⁵⁰While it is true that Michigan governmental interests are subordinate to the political wishes of the governor and the legislature, these interests are nonetheless important in terms

3. Canadian non governmental interests (Cng)
4. Canadian government non federal governmental interests (Cgov)

The positions of these four groups on the conditions or scenarios described are assigned the following values:

- 1 = increases the likelihood that the group would support a water diversion project
- .5 = has no impact on the group's support for a water diversion project
- 1 = decreases the likelihood that the group would support a water diversion project

Since consensual decisions on water diversion are being sought, a veto was given to any one of the four groups who found the condition or scenario would decrease the likelihood of their groups support, and an indifference veto would arise if more than two groups found the condition to have no impact on their organization's support of a water diversion project. Thus a minimum score of +3 would be necessary for a criteria to be considered politically acceptable.. Hence the formula for each criterion would be as follows:

$$Mng(\text{score}) + Mgov(\text{score}) + Cng(\text{score}) + Cgov(\text{score}) = +3 \text{ or more}$$

Using this formula, the conditions and scenarios identified in Tables 2 and 3 that qualify under this formula and the scores are provided in Table 6

TABLE 6

Potential factor to consider in developing criteria for a regional water diversion policy

Conditions

1. The amount of water diverted by the project would not be returned to the Basin either from some other source or in the form of treated wastewater (no net loss of water) Score 4
2. The water diversion project would have no discernible effect on Great Lakes water levels. Score 4
3. There are no direct adverse environmental impacts associated with the construction or operation of this proposed water diversion project. Score 4
4. The water diversion project is necessary to meet a crisis or emergency situation. Score 3

of assuring implementation of the wishes of Michigan's political leaders and therefore are given a separate status like the provinces of Canada (who do have separate water diversion authority).

5. The water diversion project is for the benefit of a community that already has in place a plan for water conservation, water treatment, and managed growth. Score 3

Scenarios⁵¹

1. The proposed water diversion project was developed to address dangerous, natural contamination of public drinking water supplies and there is no feasible water supply alternative. Score 3.5

2. The proposed water diversion project was developed to address dangerous, man-made contamination of public drinking water supplies and there is no feasible water supply alternative.

Score 3

3. The proposed water diversion project is necessary to respond to a natural crisis (flood or drought) and is temporary in nature. Score 3

4. The proposed water diversion project would open the Great Lakes to increased world shipping, economically stimulating the region as a whole. Score 3

5. The proposed water diversion project would economically enhance a general industry associated with the Great Lakes region, such as hydroelectric power, transportation and navigation, or recreation/sports industries. Score 3

Taking into account the specific written criteria summarized in Table 5, the conditions and scenarios in Table 6 should be addressed so that there is joint U.S.-Canadian decision-making power, both economic and environmental impacts should be considered before approving a project, the burden of proof of need for the project and a showing of no long term negative impact on the basin should be on the project applicant to satisfy the skepticism of anti-diversion groups, and each project should be evaluated on its individual merits without consideration of past diversion proposals to avoid the concern for precedential diversion decisions.

⁵¹It should be noted that the conditions of temporariness of the project and the no feasible alternative to the diversion project (mentioned in scenarios 1,2, and 3) were assigned the most important criteria by the Canadian non governmental and governmental groups and thus deserve additional valuation in water diversion criteria development.

A GREAT LAKES IMPACT STATEMENT (GLIS)?

Even the most ardent anti-diversion stakeholders --the environmental groups -- have identified criteria upon which to evaluate water diversion projects⁵², despite their protestations that other steps need to be taken first such as strengthening the Great Lakes Charter, developing better data bases, and reducing water consumption levels. This article has identified conditions and scenarios upon which criteria can be derived that meet the needs of diversion decision-makers. The final question is who and in what context should these conditions/scenarios be translated into specific Great Lakes water diversion criteria?

Should the decision to approve or disapprove a water diversion request remain a single state veto approach. Because Michigan is finding this an increasingly uncomfortable political situation, the alternative is to expand this function to a regional decision-making body, such as the International Joint Commission, the Great Lakes Commission, or the Council of Great Lakes Governors and its creation: the Great Lakes Charter. Although the Council choice is the organization with the least formal legal authority, it has the strongest state political authority in terms of representation; and has Canadian representation in the Great Lakes Charter it created. While it is not necessarily suggested that each governor relinquish his/her veto to the Council and Charter members, it is suggested that they defer exercising the veto until the Charter members have the first opportunity to review the water diversion project.

It is further suggested that the Great Lakes Charter be amended to include specific criteria for evaluating water diversion proposals based on the conditions and scenarios in Table 6. The table reflects not only the primary concerns raised by the major Great Lakes stakeholders but, equally importantly, the primary concerns of the state of Michigan⁵³ and the Canadian federal government⁵⁴ and the two provinces as well. As the Deputy Minister for Natural Resources for the Province Ontario indicated in a letter to this author, the province recognizes the need to deal with emergency situations on a temporary basis until alternative supplies of water can be secured as long appropriate procedures and criteria are employed to evaluate any water diversion proposals.⁵⁵

⁵²Engler, Governor John. Letter from 12 U.S. and Canadian environmental groups. 4 September 1991. In this letter, the groups outlined five objections to the Lowell diversion project: precedent, permanence, all alternatives not addressed, lack of Lowell water conservation plan, and the water requested was more than needed.

⁵³See Governor Engler quote in footnote 23.

⁵⁴See Consul General Anne Charles in footnote 1, highlighting concerns about precedent and cumulative effects.

⁵⁵Vrancart, Ronald. Letter to James P. Hill. 20 February 1997.

Even if the decision on specific water diversion criteria is made only by a subcommittee of states with U.S. veto power, it seems clear from this review of Michigan and Canadian views on water diversion that they share a similar protective attitude towards the basin. The only areas of clear Michigan-Canada priority (see footnote 50 on the conditions of temporariness and no feasible alternative) were incorporated in scenarios approved by groups from both countries. Thus, Canada's concerns about water diversion would be adequately reflected by Michigan in a states only subcommittee even if the provinces were not voting members of any water diversion project evaluation procedure.

Finally, to ensure that every project receives an equal hearing on water diversion (whether it is a Great Lakes state or non Great Lakes state applicant), it is suggested that the criteria adopted by the region be incorporated into a Great Lakes Impact Statement (GLIS) which every applicant would be required to submit. The GLIS would be modeled along the lines of the Environmental Impact Statement (EIS) of the National Environmental Policy Act (NEPA) with two important exceptions. First, the statement would have to address long range environmental and economic impacts of the project, with the burden of proof on the applicant to present the best available evidence to evaluate these impacts⁵⁶. Secondly, the adequacy of the GLIS would be determined not by a court but by a vote of either the Charter members or of the Council of Great Lakes Governors. Thus, the precedential value of each decision would be limited while the power of the states to delay or redefine diversions in an era of scientific uncertainty would be preserved.

With a regional body utilizing regionally protective and political acceptable criteria to evaluate water diversion proposals in a GLIS format, the political pressure on individual governors to veto a project is eased. The water diversion applicants will know the criteria in advance and some may well choose not to go forward if they do not meet these criteria. Those that do seek approval will be subject to regional scrutiny and information requirement that may well obviate the need for a gubernatorial veto but rather result in deferral until appropriate research is completed to evaluate the overall environmental and economic impacts as well as the cumulative effects on water levels. Only the smaller and best researched projects are likely to survive such scrutiny, and if a politically unacceptable project does manage to endure the process, a gubernatorial veto by the Governor of Michigan could be exercised as a last resort.

Brooks, Wyatt L. and Valerie M. Poglemon. "New Mexico Continues to Study Water Embargo Measures: A Reply to the State Water Law Study Committee." *Texas Technology Law Review* 16 (1985): 939-962.

Burby, R. et al. "Cities Under Water, A Comparative Evaluation of Ten Cities' Efforts to Manage Floodplain Land Use." (1988).

Cutler, L. "Water Resource Cooperation in River Basin Development." *Iowa Law Review*

⁵⁶Including the issues of cumulative water impacts and the quality of the water returned from any diversion.

CONCLUSION

During the 1996 Presidential campaign, Michigan's Secretary of State Candice Miller introduced language to be included in the GOP platform that stated, "we oppose any diversion of Great Lakes water."⁵⁷ However, this language received little attention in the news media not only because of the relatively obscure document in which the language was proposed, but also because it is no longer the de facto policy of the Great Lakes basin.

Instead, through a series of court and legislative decisions, the region's anti-diversion policy has become a political football pitting Great Lakes states against each other and all but shattering the illusion of Great Lakes unity in water diversion policy. Changing political and legal circumstances, however, have opened a window of opportunity to modify the historic and largely symbolic no diversion policy that Secretary Miller proposed into a useful policy to meet the challenges of smaller water diversion projects sponsored by Great Lakes states. Despite the long battles among Great Lakes stakeholders, it appears that there is indeed common ground to move the issue of regional water diversion policy from the status of political rhetoric to one that is more legally defensible as well as protective of the variety of interests affected by water diversion.

Whether or not the conditions and scenarios presented in this paper are adopted in part or in their entirety in a regional water diversion policy is not as important as recognition of the fact that there are indeed common grounds for evaluating water diversion projects other than ad hoc political decision-making. Similarly, despite the lack of Canadian legal veto authority, it also appears that there is a strong protective interface between Canada and Michigan that may well serve to ensure that Canadian interests are protected in future water diversion decisions. It is up to Michigan to support an evaluation approach such as the one proposed in this paper that will reduce the political risks of Michigan overusing this veto authority.

⁵⁶Engler, Governor John. Letter from 12 U.S. and Canadian environmental groups, 4 September 1991. In this letter, the groups outlined five objections to the Lowell diversion project: precedent, permanence, all alternatives not addressed, lack of Lowell water conservation plan, and the water requested was more than needed.

⁵⁷See Governor Engler quote in footnote 23.

⁵⁸See Consul General John Charles in footnote 1, highlighting concerns about

⁵⁷Department of Environmental Quality. "Office of Great Lakes Activity Report". October, 1996: p. 3.

III. REFERENCE LIST AND BIBLIOGRAPHY

- Abrams, Robert H. "Interbasin Transfer in a Riparian Jurisdiction." William & Mary Law Review 24 (1983): 591-623.
- Advisory Committee. Study of the Relationship Between the Council of Great Lake Governors and the Great Lake Commission: Final Report Lexington, KY: State Research Associates, 27 Nov. 1985.
- Argiroff, C., CA Inc. "Analysis and Report on Stage Damage Relationships for Selected U.S. Shoreline Reaches." For the Potential Damages Task Group, Working Committee 2, Levels Reference Study, International Joint Commission (1992).
- Baird, W.F. and Associates. "Future Avoided Costs of Shore Protection." For the Potential Damages Task Group, Working Committee 2, Levels Reference Study, International Joint Commission, (1992).
- Baldwin, Pamela. "Legal Issues Related to Division of Water from Lake Michigan to the Mississippi River." CRS Report to Congress. Library of Congress. 31 Aug. 1988.
- Bates, Karl L. "Water Diversion from the Great Lakes." Illinois Issues 10 (1984): 17-20.
- Block, Peter. Conservation of Water and Related Land Resources 2nd ed. New Jersey: Rowman & Littlefield, 1987.
- Bonner, Patricia. "America's Great Lakes Program: The Bureaucratic MESS in the U.S." Economic and Legal Enforcement Mechanisms. The International Joint Commission. Windsor, Ontario. 21-22, Feb. 1977.
- Bradshaw, Michael. Regions and Regionalism in the United States. Mississippi: University Press of Mississippi, 1988.
- Brooks, Wyatt L. and Valorie M. Foglemon. "New Mexico Continues to Study Water Embargo Measures: A Reply to the State Water Law Study Committee." Texas Technology Law Review 16 (1985): 939-962.
- Burby, R. et al. "Cities Under Water, A Comparative Evaluation of Ten Cities' Efforts to Manage Floodplain Land Use," (1988).
- Caldwell, Lynton. "Interstate Cooperation in River Basin Development." Iowa Law Review 32 (1947): 232-243.
- Carter, Neil. "Measuring Government Performance." The Political Quarterly July-Sept. 1988: 369-375.

- Charles, Anne. Letter to Michigan Governor, John Engler. 14 August 1991.
- Chi, Keon S. "Interstate Cooperation: Resurgence of Multistate Regionalism." The Journal of State Government 63 (1990): 59-63.
- Citizens Advisory Committee, "Final Report - Annex 5." Submitted to the Levels Reference Study Board, International Joint Commission, (March 31, 1993). ISBN 1-894085-49-7.
- Clyde, Steven E. "State Prohibitions on the Interstate Exportation of Scarce Water Resources." University of Colorado Law Review 53 (1982): 529-558.
- Condon, David L. "The Never Ending Story: Low Level Waste and the Exclusionary Authority of Noncompacting States." National Resources Journal 30 (1990): 65-86.
- Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data, "Apparent Vertical Movement of the Great Lakes," (1977).
- Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data, "Brochure on the International Great Lakes Datum," (1992).
- Craven, Bill. "Kansas, Colorado in Water Fight." National Law Journal 8 Oct. 1990: 15.
- Crisis Conditions Task Group, Working Committee 3, "Crisis Conditions: Summary." Levels Reference Study, International Joint Commission, (1992).
- Crisis Conditions Task Group, Working Committee 3, "Crisis Condition Responses: Final Report - Annex B." Submitted to the Levels Reference Study Board, International Joint Commission, (March 31, 1993). ISBN 1-895085-50-0.
- Crossland, Charlotte B. "Breach of an Interstate Compact: Texas U. New Mexico." Natural Resources Journal 287 (1988): 849-862.
- Curlin, James. "The Interstate Water Pollution Compact-Paper Tiger of Effective Regulatory Device?" Ecology Law Quarterly 2 (1972): 333-356.
- Davis, Phillip. "Revamping Clean Water Act May Be a Big Problem." Congressional Quarterly 49 (1991): 739.
- Derthick, Martha. Between State and Nation. Washington D.C.: The Brookings Institution, 1974.
- Department of Environmental Quality. "Office of Great Lakes Activity Report." October 1996: 3.
- Donahue, Michael. "Institutional Arrangements for Great Lakes Management." Michigan Sea Grant College Program. Ann Arbor, Nov. 1987.

- Donahue, Michael J. "Institutional Ecology: Political/Institutional Mechanisms for Change in Great Lakes Management." Symposium on Social Ascent of Fisheries Resources. Kettunen Center, Michigan, 3-6 Sept. 1985.
- Ecological Services for Planning Ltd., "Historical Coastal Wetland Mapping Study: Phase II." For the Natural Resources Task Group, Working Committee 2, Levels Reference Study, International Joint Commission, (1992).
- Ecologistics Limited, "Evaluation of Shoreline Management Practices - Canadian Shoreline." For the Land Use and Shoreline Management Task Group, Working Committee 2, Levels Reference Study, International Joint Commission, (1992).
- Ecologistics Limited, "Lake Level Regulation and Shoreline Management." For the Land Use and Shoreline Management Task Group, Working Committee 2, Levels Reference Study, International Joint Commission, (1992).
- Ecologistics Limited, "Private and Public Shore Protection Expenditures Along the Canadian Great Lakes - St. Lawrence River Shoreline, 1985-1987." For the Potential Damages Task Group, Working Committee 2, Levels Reference Study, International Joint Commission, (October 14, 1992).
- Ecologistics Limited, "Hypothesis Testing of Riparian Surveys: Ontario, Quebec and Native North Americans." For the Social Impacts Task Group, Working Committee 2, Levels Reference Study, International Joint Commission, (May 25, 1992).
- Ecologistics Limited, "Review of Relevant Experiences Outside the Basin Pertaining to the Policies and Measures in the Great Lakes-St. Lawrence River Basin," (May 26, 1992).
- Elanzor, Daniel. American Federalism: A View from the States 3rd ed. New York: Harper & Row, 1986.
- Elloit, Michael. "Water Wars." Geographical Magazine May 1991: 27-30.
- Engelbert, Ernest A. "Strategies for Western Regional Water Development." Western Interstate Water Conference. Corvallis, Oregon. 1965.
- Engler, Governor John. Letter from 12 U.S. and Canadian Environmental Groups. 4 September 1991.
- Engler, Governor John. Letter to Indiana Governor Evan Bayh. 8 May 1992.
- Engler, Governor John. Letter to Quebec Minister of the Environment, Pierre Parades. 9 December 1993.

- Erosion Processes Task Group, Working Committee 2, "Erosion Processes and Waer Level Fluctuations, Summary." Levels Reference Study, International Joint Commission, (March 30, 1992).
- Erosion Processes Task Group, Working Committee 2, "Final Report." Levels Reference Study, International Joint Commission, (March, 1993).
- Farid, Claire et al. "The Fate of the Great Lakes." The Canadian Law Association and Great Lakes United. 10 February 1997: 35.
- "First Volleys of New Water Wars." U.S. News and World Report. 30 May 1988:20-22.
- Forer, Lois. "Water Supply: Suggested Federal Regulation." Harvard Law Review 75 (1961): 332-349.
- Foster, Charles H.W. "Cooperation to Live by: Bioregionalism in New England." A Report to the Mass Foundation for Humanities and Public Policy. Fund for New England, Boston. Sept. 1987.
- Fredrichs, Stephen, and W. Easter. "Regulation of Interbasin Transfers and Consumptive Uses from the Great Lakes." National Resources Journal 30 (1990): 561-579.
- Gage, Robert W. "Key Issues in Intergovernmental Relations in the Post-Reagan Era: Implications for Change." American Review of Public Administration 20 (1990): 155-169.
- Geomatics International, "Great Lakes Shoreline Classification and Mapping Study: Canadian Side." For the Erosion Processes Task Group, Working Committee 2, Levels Reference Study, International Joint Commission, (July 31, 1992).
- Girardot, Joseph W. "Toward a Rational Scheme of Interstate Water Compact Adjudication." Journal of Law Reform 23 (1989): 151-178.
- Glendening, Paul and Morris Reeves. Pragmatic Federalism. Pacific Palisades: Palisades Publishers, 1984.
- Goldfarb, M. Water Law. 2nd ed. Chelsea, MI: Lewis Publishing, 1988.
- Grad, Frank P. "Federal-State Compact: A New Expericment in Cooperations Federalism." Columbia Law Review 63 (1963): 825-858.
- Grandori, Anna. Perspectives on Organizational Theory. Cambridge: Bollinger Publishing Co., 1987.
- Gray, Tom. "Historic Diversion Decision Awaited." The Great Lakes United 1 (1991): 2.

- Great Lakes Commission. "Great Lakes Guide to Policies, Priorities, and Programs of the Great Lakes Commission." Ann Arbor (1995): 15.
- Great Lakes Commission Staff. "The Great Lakes Basin Compact: A Framework for Discussion." Great Lakes Water Resource Conference. Mackinac Island, MI 10-11 June 1982.
- Great Lakes Charter. 1985.
- "Great Lakes Compact is an Advisory Body." Ann Arbor News 17 Apr. 1984.
- Greenhouse, Linda. "Old Friends Divide in Old Dispute, Water in West." New York Times 2 Sept. 1986: A16.
- Griffin, William L. "A Prologue to Protecting Great Lakes Water Quality." Cooley Law Review 4 (1987): 275-299.
- Gross, Sharon. "The Galloway Project and the Colorado River Compacts: Will the Compacts Bar Transbasin Water Diversions." National Resources Journal 25 (1985): 935-960.
- Hawkins, Robert. "The Dramatic Rise of Federal Supremecy." The Journal of State Government 63 (1990): 10-14.
- Hengeveld, H., "Understanding Atmospheric Change: A Survey of the Background Science and Implications of Climate Change and Ozone Depletion: A State of Environment Report." Atmospheric Environment Service, Environment Canada (1991) ISBN 0843-6193, SOE Report No 91-2.
- Heron, Kevin J. "The Interstate Compact in Transition: From Cooperative State Action to Congressionally Coerced Agreements." St. John's Law Review 60 (1985): 1-25.
- Hitt, M.A. "The Measuring of Organizational Effectiveness: Multiple Domains and Constituencies." MIR 28 (1988): 28-40.
- Huffman, James. "Governing America's Resources: Federalism in the 1980's." Environmental Law 12 (1982): 863-901.
- Hundley, Norris. Water & the West. Berkeley: University of California Press, 1975.
- Indiana Department of Natural Resources. Transcripts of Lowell, Indiana Diversion Consultation. Indianapolis: Administrative Cause No. 91-269W, 1991.
- Indiana Governor. Letter to Governor Engler. 4 June 1993.

- Ingram, Helen. "The Political Economy of Regional Water Institutions." American Journal of Agricultural Economics 55 (1973): 10-18.
- International Great Lakes Levels Board, "Regulation of Great Lakes Water Levels." Report to the International Joint Commission (1973).
- International Great Lakes Technical Information Network Board, "Great Lakes Hydrometeorologic and Hydraulic Data Needs." Report to the International Joint Commission (December 1984).
- International Joint Commission, "Great Lakes Diversions and Consumptive Uses (1985).
- International Joint Commission, "Interim Report on 1985-86 High Water Levels in the Great Lakes-St. Lawrence River Basin" (October 1988).
- International Joint Commission, Letters to Governments (November 14 and December 10, 1986).
- International Joint Commission, "Revised Directive to the Levels Reference Study Board (Phase II)" (February 8, 1990, revised April 20, 1990).
- International Lake Erie Regulation Study Board, "Lake Erie Water Level Study." Report to the International Joint Commission (1981). Main Report and Appendices A through H.
- International Joint Commission. Living with the Lakes: Challenges and Opportunities. Annex C. Washington, D.C., Water Levels Reference Study, 1989 (7 volumes).
- Jackson, James M. "Enhancing State Regulation Through the Compact Clause." Journal of Insurance Regulation 9 (1990): 151-192.
- Jean, M., D'Aoust, M., Gratton, L., and Bouchard, A., "Impacts of Water Level Fluctuations on Wetlands: Lake Saint-Louis Case Study." For the Natural Resources Task Group, Working Committee 2, Levels Reference Study, International Joint Commission (1992).
- Kreshner, Bruce. "Report on the disapproval of the proposed water diversion from Lake Michigan to Lowell, Indiana." 8 May 1992.
- Kreutzeiser, R.D., and Gabriel, A., "Identification of High Water Storm Thresholds For Property Damage." For the Crises Condition Task Group, Working Committees 2 and 3, Levels Reference Study, International Joint Commission (March 19, 1992).
- Kreutzwiser, R.D., Gabriel, A., MacKenzie, and Slaats, J., Institutions in the Great Lakes - St. Lawrence Basin: A Review and Assessment of Their Ability to Implement Lake-Level Related Measures. For Working Committee 4, Levels Reference Study,

International Joint Commission (1992).

Land Use and Shoreline Management Task Group, Working Committee 2, "Final Report." Levels Reference Study, International Joint Commission (1993).

Land and Water Management Division, "Emergency Home Moving Program Final Report," Michigan Department of Natural Resources (May 1987).

Larloch, Dan A. "One River, Three Sovereigns: Indian and Interstate Water Rights." XXII (1987): 631-671.

Lavalin Environment Inc., "Water Levels Fluctuation Study - Methodology for an inventory of the effects of water level variations on riparian property along the St. Lawrence River between Cornwall and Lac Saint-Pierre, Quebec." For the Social Impacts Task Group, Working Committee 2, Levels Reference Study, International Joint Commission (November, 1991).

Lavalin Environment Inc., "Study of Water Level Fluctuations - Effects of Water Level Variations on Riverfront Property Owners: St. Lawrence River, Quebec Segment."

Leach, Richard. "Interstate Authorities in the United States." Law and Contemporary Problems 26 (1961): 666-702.

Lester, James P. and Emmett N. Lombard. "The Comparative Analysis of State Environmental Policy." National Resources Journal 30 (1990): 301-317.

Leuchtenburg, William E. Flood Control Politics: The Connecticut River Valley Problem 1972. New York: DA CAPO Press, 1972.

Levels Reference Study Board, "Plan of Study, Phase II." Levels Reference Study, International Joint Commission (July 19, 1991).

Levels Reference Study Board, "Condensed Work Plans, Phase II." Levels Reference Study, International Joint Commission (May 31, 1991).

Levels Reference Study Board, "UPDATE/AU COURANT." Levels Reference Study, International Joint Commission (December 1991 to March 1993) Issues 1 through 8.

Levels Reference Study Board, Great Lakes - St. Lawrence River Basin. Submitted to the International Joint Commission (March 31, 1993). ISBN 1-895085-43-8.

Light, Stephen S. and John R. Wodraska. "Forging a New State-Federal Alliance in Water Management." National Resources Journal 30 (1990): 477-484.

Light, Stephen S. and John R. Wodraska. "National Water Policy: A Prospect for Institutional Reform." Public Administrative Review Sept./Oct. 1990: 594-598.

- Linden, Eugene. "The Last Drops." Time 20 Aug. 1990: 58-61.
- MacAuoy, Peter. "Towards a Basin-wide Strategy for Managing the Great Lakes." Cleveland, Ohio, Dec. 11-13, 1985.
- Maran, Robert W., et al., "Trends and Emerging Environmental Issues in the Great Lakes: Perceptions and Assessments." Institute for Social Research and School of Natural Resources, University of Michigan, Michigan Sea Grant College Program, Report No. MICHU-SG-89-201.
- Marshall, Macklin, Monaghan, "Great Lakes Flood and Erosion Stage-Damage Curves Update - Canadian Shoreline." For the Potential Damages Task Group, Working Committee 2, Levels Reference Study, International Joint Commission (August 6, 1992).
- Mehan, G. Tracy. Letter from Ontario Premier Bob Rae. 10 August 1994.
- Misch-Cole, Sally. "Great Lakes Diversion: A Conflict Assessment." The Environmental Professional 8 (1986): 112-119.
- Michigan Department of Natural Resources. "Public Information Document: Great Lakes Water Use Proposal, Mud Creek Irrigation District). Huron County, January, 1993.
- Michelmon, Hans J. Organizational Effectiveness in a Multinational Bureaucracy. New York: Praeger Publishers, 1972.
- Moore, John L. The Nation's Water Supply: An Overview of Conditions and Prospects. Washington D.C.: The Library of Congress 1986.
- Moskal, Jerry. "Canada, 8 states vow to fight lakes diversion plan." Lansing State Journal. Reprinted by Gannett News Service. 8 May 1983: 1B.
- Moss, Frank E. The Water Crisis. New York: Praeger, 1968.
- Munson, Dick. "Great Lakes Unity Not Just a Luxury: It's a Necessity." Great Lakes Commission 2 (1989): 1.
- Murray, Rika. "Allocation of Grount Water After Sporhase v. Nebraska ex rel Douglas: A Proposal for Combined Federal-State Regulation." Albany Law Review 48 (1984): 494-520.
- Nairn, R.B., "Erosion Processes Evaluation Paper." For the Erosion Processes Task Group, Working Committee 2, Levels Reference Study, International Joint Commission (1992).
- National Water Commission. "Final Report to the President and Congress of the U.S."

- Water Resources for the Future. New York: Water Information Center Inc., 1973.
- National Wildlife Federation, et. al. Letter to Governor John Engler. 7 February 1997.
- Natural Resources Task Group, Working Committee 2, "Great Lakes-St. Lawrence River Natural Resources and Water Level Fluctuations," Summary, (March 30, 1992).
- Natural Resources Task Group, Working Committee 2, "Impacts of Water Levels on Natural Resources." Levels Reference Study, International Joint Commission (May 1992).
- Natural Resources Task Group, Working Committee 2, "Final Report." Levels Reference Study, International Joint Commission (1993).
- Naujoks, Herbert H. "Compacts & Agreements Between States & a Foreign Power." Marquette Law Review Winter 1952-53: 219-247.
- Nebraska Antiexportation Water Statute. 458 U.S. 941, 102 S. Ct. 3465, 73 C. Ed. 2nd. 1254 (1982).
- Nelson, Carl P.A. "Sporhease v. Nebraska ex rel Douglas: A call for New Approaches to Water Resource Management." Hastings Constitutional Law Quarterly 11 (1984): 283-328.
- Nice, David C. "Cooperation and Conformity Among the States." Polity Spring 1984: 494-505.
- Nice, David C. "State Participation in Interstate Compacts." Publius 17 (1989): 69-83.
- Ohio Governor. Letter to Governor Engler. 15 June 1993.
- Olson, Mancur. The Logic of Collective Action. Harvard University Press, 1971.
- Paragon Engineering Limited, "Potential Damage Estimates For Site Specific Areas: Great Lakes-St. Lawrence River Basin." For the Potential Damages Task Group, Working Committee 2, Levels Reference Study, International Joint Commission (1992).
- Pfeffer, Jeffrey and Gerald Salancik. The External Control of Organizations: A Resource Dependence Perspective. New York: Harper and Row, 1987.
- Potential Damages Task Group, Working Committee 2, "Potential Damages and Water Level Fluctuations: Summary." Levels Reference Study, International Joint Commission (1992).
- Potential Damages Task Group, Working Committee 2, "Detailed Site Study Report-Berrien

- County, Michigan." Levels Reference Study, International Joint Commission (1993).
- Potential Damages Task Group, Working Committee 2, "Detailed Site Study Report-Hoover Beach, New York." Levels Reference Study, International Joint Commission (1993).
- Potential Damages Task Group, Working Committee 2, "Final Report." Levels Reference Study, International Joint Commission (1993).
- Poulson, David. "The fight for water." The Ann Arbor News, 4 March 1996: A1.
- Price, Kent. Regional Conflict and National Policy. Washington D.C.: Resources for the Future, Inc., 1982.
- Prince, David. "State Control of Great Lakes Water Diversion." William Mitchell Law Review 16 (1990): 107-170.
- Project Management Team, "Living with the Lakes: Challenges and Opportunities." Report to the International Joint Commission, Main Report and Annexes A through G (July 1989).
- "Proposal to divert Great Lakes water called dangerous." Toronto Star, 19 March 1987: A10.
- Quinn, F, Derecki, J. and Sellinger, C., "Pre-1900 St. Clair River Flow Regime." For Working Committee 3, Levels Reference Study, International Joint Commission (September 9, 1992).
- "Report to the Great Lakes Governors: Great Lakes Water Diversions and Consumption Uses: Charting a Course for Future Protection." State of Illinois Department of Transportation: Division of Water Resources. 17 Nov. 1983.
- Report to the Advisory Committee. "Study of the Relationship Between the Council of Great Lakes Governors and the Great Lakes Commission." 27 Nov. 1985.
- Rernumagi, Irma U. "Diverting Water from the Great Lakes: Pulling the Plug on Canada." Valparaiso University Law Review 20 (1986): 299-332.
- Rhodes, John J. "Developing a National Water Policy: Problems and Perspectives on Reform." Journal of Legislation 8 (1981): 1-15.
- Ridgeway, Marian. Interstate Compacts: A Question of Federalism. Carbondale: Southern Illinois University Press, 1971.
- Rodgers, Ann B. "The Limits of State Activity in the Interstate Water Market." Land and Water Review XXI (1986): 357-380.

Sax, Joseph L., Robert H. Abrams, and Barton H. Thompson. Legal Control of Water Resources. 2nd ed. St. Paul, Minnesota: West Publishing, 1991.

Schmandt, Jurgen, E. Smerdon, and J. Clarkson. State Water Policies: A Study of Six States. New York: Praeger, 1988.

Schonack, Dennis (Policy Advisor). Memo to Governor Engler. 13 August 1991.

Scott, Richard W. Organizations, Rational, Natural and Open Systems 2nd ed. New Jersey: Prentice Hall, 1987.

Skibicki, A. and Nelson, J.B., "A Review of Existing Great Lakes - St. Lawrence Basin Agreements and Policies and A Draft Statement on Existing and Implicit Management Principles." For Working Committee 4, Levels Reference Study, International Joint Commission (May 21, 1992).

Smith, Michael F. "Great Lakes Water Diversion: Protecting Michigan's Interests." Lansing, Michigan: Public Sector Consultants, Jan. 1986.

Social Impacts Task Group, Working Committee 2, "Final Report." Level Reference Study, International Joint Commission (April, 1993).

Stephenson, Charles. "Interstate Rights to One Waters of the River: Issues Raised by the Proposed Northfield Division." 4 (1982): 641-683.

Stomfield, Rochelle. "Enough and Clean Enough?" National Journal 17 Aug. 1985: 1876-1887.

Sudar, A., Nelson, G., "Survey of Great Lakes - St. Lawrence River Riparian Property Owners in the United States." U.S. Army Corps of Engineers, North Central Division, (April, 1993).

The Water Network. "Institutions in the Great Lakes - St. Lawrence River Basin." Report to the International Joint Commission Water Levels Reference Study (Work Committee 4). May 1992.

Thomas, Cleve S. and Ronald J. Hrebenar. "Comparative Interest Group Politics in the American West." Journal of State Government 53 (1986): 124-135.

"To Form a More Perfect Union? Federalism and Informal Interstate Cooperation." Harvard Law Review 102 (1989): 842-863.

"Toward National Water Policy Coordination: The Challenge of Improving Intergovernmental Relations." Interstate Conference on Water Policy. State-Federal

- Coordinating Work Group. Feb. 1990.
- Tubbs, Robert W. "Great Lakes Water Diversions: Federal Authority Over Great Lakes Water." Detroit College of Law Review 3 (1983): 919.
- United States. Committee on Foreign Affairs. Staff Memorandum on the Great Lakes Basin Compact. Washington D.C.: GPO, 1959.
- United States. Federal-Interstate Compact Commission. "Useful Mechanisms for Planning and Managing River Basin Operations." Report to the Congress. Washington D.C.: GAO, 1981.
- United States. Advisory Commission on Intergovernmental Relations. Multistate Regionalism. Washington D. C.: GPO, 1972.
- United States. National Water Commission. New Directions in U.S. Water Policy: Summary, Conclusions, and Recommendations. Washington D.C.: GPO, 1973.
- Vawter, Wallace R. "Interstate Compacts-The Federal Interest." Commission on Organization of the Executive Branch of the Government. Task Force on Water Resources and Power. June, 1985.
- Vrancart, Ronald. Letter to James P. Hill. 20 February 1997.
- Wandschneider, Phillip. "Managing River Systems: Centralization U.S. Decentralization." National Resources Journal 24 (1984): 1043-1066.
- "Water Diversions and Great Lakes Institutions." Homeline Journal of Public Law and Policy 8 (1987): 301-355.
- "Water Resources and the Law." Summer Institute. University of Michigan Law School, Ann Arbor. 4-6 Sept. 1957.
- Water Resources Development Act of 1986. Sec. 1109. 42 USC Sec. 1962d-20.
- Whitehead, M. Digest of International Law. Vol. 3.
- Wildner, Julia. "The Great Lakes as a Water Resource: Question of Ownership and Control." Indiana Law Journal 59 (1984): 463-501.
- Will, George. "The West's Choice is Water over the Dam." Detroit News 29 Mar., 1991: 7A.
- World Meteorological Organization, "Global Climate Change: A Scientific Review Presented by the World Climate Research Programme," World Meteorological Organization, Geneva (1990).

Yoe, C., "A Critical Review of Existing and Updated U.S. and Canadian State-Damage Curves," For the Potential Damages Task Group, Working Committee 2, (June 1992).

Young, Oran, R. International Cooperation: Building Regimes for National Resources and the Environment. New York: Cornell University Press. 1989.

LIBRARY E A / BIBLIOTHÈQUE A E



3 5036 01070163 2

DOCS
CA1 EA980 97N25 ENG
Hill, James P
The new politics of Great Lakes
water diversion : a Canada-Michigan
interface
57109907

