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## Selling Great Lakes Water to a Thirsty World: Legal, Policy & Trade Considerations

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**Selling Great Lakes Water to a Thirsty World:  
Legal, Policy & Trade Considerations**

Brian D. Anderson\*

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## I. Introduction

In the spring of 1998, Ontario granted a permit to a private corporation allowing bulk tanker exports of water from Lake Superior for sale in Asia.<sup>1</sup> This sparked Canadian and American outrage based in equal parts on environmental concern for the Great Lakes and on visceral ties to the lakes and rivers that shape a regional sense of identity. By issuing the permit as they might for any other resource extraction, Ontario failed to recognize what water law expert Professor Joseph Sax refers to as the popular notion of water as a "heritage resource."<sup>2</sup> Those who wish to engage in bulk exports<sup>3</sup> of water often compare it to other natural resources like timber or natural gas, but the unique life and economy-sustaining features of water have made its export a bitterly contentious political and social issue. Professor Sax has observed that a community's attachment to water more closely resembles its attachment to historic architecture, art or other cultural iconography. "Water is as Canadian as hockey, as the Mounties, as the beaver," observed Bill Blaikie, a Member of Parliament from Manitoba. Following the controversy, and just weeks after granting permission to tap the lake water, Ontario cancelled the permits and the Canadian national government declared

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<sup>1</sup> See Heather Scoffield & Paul Adams, *Canada-U.S. Commission Urges Great Lakes Water-Export Ban; Ottawa to Proceed with Long-Delayed Legislation to Outlaw Bulk Sale*, TORONTO GLOBE & MAIL, Aug. 19, 1999, at A2.

<sup>2</sup> Joseph L. Sax, *Understanding Transfers: Community Rights and the Privatization of Water*, 1 WEST-NORTHWEST 13,14 (1994).

<sup>3</sup> "Bulk water removal broadly refers to large-scale removals of water by man-made diversion, such as canals, tanker ships or trucks, or pipelines. It is not necessarily exported out of the province or country, but is 'exported' from its basin of origin. Also, it does not include small-scale water removal, such as for bottled water." Environment Canada website (visited Sept. 6, 1999) <[http://www.ec.gc.ca/water/en/manage/removal/e\\_FAQ.htm](http://www.ec.gc.ca/water/en/manage/removal/e_FAQ.htm)>.

a temporary moratorium on water exports. Said Canadian Foreign Minister, Lloyd Axworthy, shortly after announcing the moratorium, "[Water] is not just a commodity."<sup>4</sup>

While conservationists consider Great Lakes waters a cultural resource not to be bought and sold, potential exporters argue that the international sale of water has become a humanitarian issue, as pollution, overuse and population pressures have imperiled water supplies.<sup>5</sup> Trade now, they argue, would provide relief in a world where water resources have not been equitably disbursed, establish a workable legal framework to stabilize future trade, and put loads of cash into the border economy. The growing need for potable water worldwide and the fact that drinking water sells for a higher price than oil, would-be exporters argue, makes banning its export both humanitarian and economic folly.

Regardless of the outcome of the current debate over water exportation, it is clear that the Great Lakes will continue to be viewed as an international source of fresh water and profit. The five Great Lakes, Superior, Michigan, Huron, Erie and Ontario, hold 18% of the world's freshwater supply, 95% of the surface waters of the United States, and the world's largest fresh water lake, Lake Superior (82,100 sq. k.).<sup>6</sup>

More than 33 million people, including 10% of the United States population and 25% of Canadians live in the Great Lakes Basin.<sup>7</sup> Over 23 million people from eight states, two provinces and

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<sup>4</sup> Anthony DePalma, *Free Trade in Fresh Water? Canada Says No; Fearing U.S. Will Pry Away Its Resources, Ottawa Moves to Halt Bulk Exports*, N.Y. TIMES, Mar. 7, 1999, at A10.

<sup>5</sup> See PETER H. GLEICK, *THE WORLD'S WATER; THE BIENNIAL REPORT ON FRESHWATER RESOURCES 1998-1999*, ix-x (1998).

<sup>6</sup> See International Joint Commission (visited Aug. 1998) <<http://www.ijc.org/about/how.html#What>>.

<sup>7</sup> See *id.*

two nations depend on the Great Lakes for drinking water.<sup>8</sup> Many of these people also rely on the Great Lakes for agriculture, shipping and industry.

Despite a number of unsettled areas in the North American Free Trade Agreement and hesitation among a number of Canadian provinces, a nearly watertight system of law and treaty has, for now, closed the tap on exportation from the world's largest supply of fresh water. However, these legal mechanisms are by no means permanent. Quebec and Newfoundland could well decide to ignore the Canadian federal call for a national ban on water exportation. Canadian and American decision makers are at a key juncture; they must now lay the groundwork for either the equitable and environmentally sound use of Great Lakes waters or develop a watertight legal mechanism for barring exportation.

This paper explores the political, legal and trade issues involved in the sale of Great Lakes waters. It relates the history and present status of water export proposals, presents arguments for and against allowing the export of Great Lakes waters, summarizes the state of American and Canadian law regarding the Great Lakes water resource, and considers pertinent international trade and resource treaties. Finally, the paper considers a number of relevant international water export arrangements from around the world before concluding with recommendations for policy makers.

## II. History

It is not paranoia. The Canadian fear of Americans coming to pillage Canadian waters has a long and colorful history. Beginning as early as the 1950's, a number of grandiose plans were put forth by Americans looking to tap into Canadian water stocks. Canada holds 20% of the world's fresh water supply and the United States, with one-tenth the water and nine times as many people, has looked to Canada as its solution to dwindling aquifers and parched western

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<sup>8</sup> See *id.*

cities.<sup>9</sup> In the late 1950's, a group of American engineers came up with a plan to dam up part of James Bay and divert the water to the American midwest, but the plan never came to fruition.<sup>10</sup> A similar concept took shape in the 1960's, when engineers planned a diversion of Canadian waters that would have seen water from the Yukon and Mackenzie Rivers in Western Canada sent to the American west.<sup>11</sup> The plan fizzled.

American politicians have long recognized the importance of the diversion issue. In 1954, President Eisenhower vetoed a bill permitting an increase in the Lake Michigan diversion at the Chicago Canal, largely because of Canadian objections.<sup>12</sup> In 1976, the same problem arose; Canada objected to a bill in Congress authorizing an increase in the Chicago diversion. The Department of State then advised Congress that unilaterally increasing the Chicago diversion could "lead to a serious bilateral problem" because it was "clear that Canada does have legitimate rights and interests in the shared waters of the Great Lakes System."<sup>13</sup>

More recently, the controversy has turned from massive engineered diversions to proposals for bulk exports by tanker. In 1991, Jack Lindsey and his company, Sun Belt Water of Santa Monica, California, won a contract to supply the tiny California town of Goleta, just north of Santa Barbara, with Canadian water.<sup>14</sup> Sun Belt signed a deal with Snowcap Waters of Fanny Bay, British Columbia.<sup>15</sup> The proposal was to take waters from pristine British Columbia, put them aboard tankers off the coast, and ship them to Goleta.<sup>16</sup> The deal was terminated only days later, when British

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<sup>9</sup> See *United States Water Policy: There's Plenty Up North*, THE ECONOMIST, Vol.350 Issue 8103, Jan. 23, 1999.

<sup>10</sup> See DePalma, *supra* note 4.

<sup>11</sup> See *id.*

<sup>12</sup> See William L. Griffin, *Great Lakes Diversions And Consumptive Uses In Historical International Legal Perspective*, 75 MICH. B.J. 62, 66.

<sup>13</sup> *Id.*

<sup>14</sup> See DePalma, *supra* note 4.

<sup>15</sup> See *id.*

<sup>16</sup> See *id.*

Columbia's government placed a moratorium on bulk water exports by container ships.<sup>17</sup> Though Great Lakes water was not at stake, the proposal reopened the export issue.

It was the Canadian Nova Group that applied for a permit in the spring of 1998 from the Province of Ontario to carry away 158 million gallons of water a year from Lake Superior and ship it in bulk tankers to Asia.<sup>18</sup> The permit was granted. After word of the permit leaked out, a torrent of public protest arose, and provincial leaders revoked the license.<sup>19</sup> A federal response came when Foreign Affairs Minister Lloyd Axworthy and Environment Minister Christine Stewart announced on February 10, 1999, a strategy to prohibit the bulk removal of water — including water for export — from Canadian watersheds.<sup>20</sup> But the Canadian moratorium, as explained below, is contingent on each province passing its own ban on the export of water.

The Canadian and American governments, in February of 1999, referred the issue to the International Joint Commission (IJC), the bi-national body set up to monitor and assist in the resolution of Great Lakes issues. The IJC has three responsibilities for the Great Lakes under the original treaty, The Boundary Waters Treaty of 1909. First, the IJC has limited authority to approve applications for diversions of boundary waters that would affect the natural flow on either side of the border.<sup>21</sup> The IJC also conducts studies of specific problems as presented by either nation; these questions, such as the water export query given to the IJC in February, are referred to as "references."<sup>22</sup> Implementation of the IJC recommendations is

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<sup>17</sup> *See id.*

<sup>18</sup> *See id.*

<sup>19</sup> *See id.*

<sup>20</sup> *See Canadian Government Reactions To Bulk Water Export*, Environment Canada website (visited Feb. 10, 1999) <[http://www.dfait.maeci.gc.ca/english/news/press\\_releases/99\\_press/99\\_023-e.htm](http://www.dfait.maeci.gc.ca/english/news/press_releases/99_press/99_023-e.htm)>.

<sup>21</sup> *See* DAVID HUNTER, *INTERNATIONAL ENVIRONMENTAL LAW AND POLICY* 845 (1998).

<sup>22</sup> *See id.*

entirely at the discretion of the parties.<sup>23</sup> Finally, the IJC may be called upon to mediate disputes that arise between the two governments relating to boundary waters.<sup>24</sup> Matters of difference between the parties can be forwarded to the IJC for decision, but this procedure, requiring the approval of both nations, has never been used.<sup>25</sup>

On August 18, 1999, the IJC, after public hearings in Great Lakes' cities in the spring of 1999 and consultation with legal, environmental and policy experts, issued its report. Recommendation One from the report advised all federal, state and provincial governments that they "should not authorize or permit any new bulk sales or removals of surface water or groundwater from the Great Lakes Basin."<sup>26</sup> The report cited a number of environmental concerns ranging from potential damage to ecosystems<sup>27</sup> to potential impacts of global warming.<sup>28</sup> Most importantly, the report concluded "there is never a 'surplus' of water in the Great Lakes system."<sup>29</sup> The complex web of relationships between lake levels, water ecosystems, and shoreline ecosystems has evolved over time as the lakes' levels have naturally risen and fallen over centuries.<sup>30</sup> To say that there is excess water in the lakes would be to ignore the natural rising and falling of water levels that work to preserve biological diversity in the basin.<sup>31</sup> The report was a resounding victory for environmentalists in Canada and demonstrates the decidedly green leanings of the IJC. After all, the same "no surplus" argument could be made about timber, with environmentalists claiming that there is never an excess of timber once devastating ecosystem impacts are fully considered.

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<sup>23</sup> See *id.*

<sup>24</sup> See *id.*

<sup>25</sup> See *id.*

<sup>26</sup> International Joint Commission, *Protection of the Waters of the Great Lakes, Interim Report to the Governments of Canada and the United States*, at 23.

<sup>27</sup> See *id.* at 20.

<sup>28</sup> See *id.*

<sup>29</sup> *Id.*

<sup>30</sup> See *id.*

<sup>31</sup> See *id.*



A number of the IJC's policy and trade arguments from the Interim Report are considered below; a final IJC report is due out in February, 2000.

### III. Policy Arguments

Despite a seemingly visceral Canadian rejection of bulk water exports from the Great Lakes, water exporters believe exportation would benefit the region. They point not only to potential profits, but argue that water exportation involves little or none of the environmental damages caused by other approved Canadian resource extractions, such as timber and mining.

By giving water a value in the marketplace, an incentive may be created to keep the water clean and well managed. Environmental economists have long argued that putting a price on environmental damages via the marketplace is the most efficient and effective means of protecting the environment.<sup>32</sup> Government taxes and penalties have a similar effect, but operate less efficiently, have high administrative costs, and often involve uneven enforcement. Were water to become a trade commodity, it may have its own industry lobby active in legislatures across the Great Lakes states and provinces, in Washington and Ottawa, working to protect Great Lakes water purity. Of course, exporters might also continue to lobby for their right to export water in the face of environmental harm resulting from diminished water levels.

The clearest economic argument for water export is job creation. Proponents maintain that denying the sale of water is to deny economic development to impoverished lake towns. A case in point is Canada's Grand Le Pierre in Newfoundland, where Mayor George Fizzard wants to build a water-bottling plant and a facility to

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<sup>32</sup> See ROBERT V. PERCIVAL, ENVIRONMENTAL REGULATION: LAW, SCIENCE AND POLICY 825-34 (2nd ed. 1996) for a discussion of the United States Trading System for Sulphur Dioxide.

export water by the tanker load from Gisborne Lake.<sup>33</sup> To see the Gisborne Lake water export project succeed would be to help as many as 150 people in this economically devastated area get back to work.<sup>34</sup>

Water sales are also increasingly being promoted as a humanitarian measure; as noted above, the world water supply is both dwindling and becoming dangerously polluted. Changing weather patterns into the 21<sup>st</sup> century may bring devastating droughts to large areas of the world, including the United States and Canada.<sup>35</sup> Providing water relief, as the United States and Canada do today with emergency food aid, might become a matter of course.

The most potent, but not entirely substantiated, argument for water export is that Great Lakes water is plentiful and replenishable, that, like timber, it is a renewable and valuable resource. The Great Lakes comprise 95,000 square miles of surface water, and together constitute the largest single body of fresh water in the world.<sup>36</sup> To ignore this potential, when water now sells at prices greater than an equal amount of gasoline, is to make an unfair and unwise distinction. Some cite statistics indicating that the Great Lakes are in fact underutilized as a water resource, since it is estimated that Canadian and American withdrawals will inevitably increase into the next century.<sup>37</sup> After all, they maintain, billions of gallons of water pour unused each year into the oceans. But the IJC Interim Report argues that the Great Lakes are filled largely by groundwater, and that less than 1% of their water is renewed annually by precipitation, groundwater runoff and other sources.<sup>38</sup> Lake levels are highly sensitive to climactic changes, evidenced by large swings in lake

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<sup>33</sup> See Chris Flanagan, *Newfoundland town fighting Ottawa's Water Export Ban: Free Trade Invoked: Gisborne Lake Project Would Create More Than 100 Jobs*, FINANCIAL POST, Feb. 12, 1999, at CO5.

<sup>34</sup> See *id.*

<sup>35</sup> See International Joint Commission, *supra* note 26, at Section 5.

<sup>36</sup> See Julia R. Wilder, *The Great Lakes as Water Resource: Questions of Ownership and Control*, 59 IND L. J. 463.

<sup>37</sup> See *id.*

<sup>38</sup> See International Joint Commission, *supra* note 26, at 4.

levels over the 20<sup>th</sup> century.<sup>39</sup> In 1998-99, for example, water levels in Lakes Michigan and Huron dropped 57 centimeters in 12 months.<sup>40</sup> During the summer of 1999, Lake Michigan water levels dropped to the lowest levels in 30 years, causing boats to run aground.<sup>41</sup> To maintain the depths necessary for large ships, extensive dredging operations removed large quantities of silt, stirring up deposits of toxic chemicals.<sup>42</sup> Citing great variability in lake levels and slow rates of replenishment, the IJC Interim Report declares Great Lakes waters a non-renewable resource.<sup>43</sup>

Many U.S. and Canadian groups are aligned with the IJC in their opposition to Great Lakes water export. Nationalist and environmental groups like the Council of Canadians and the Canadian Environmental Law Association have joined forces to permanently prevent water exports. They have chided the Canadian national government for considering but failing to pass legislation that might have put a stop to exports years ago.<sup>44</sup> In opposing water exports now, they have marshaled a number of arguments based on environmental, trade and legal concerns.

Allowing a world market to develop for Great Lakes waters, they argue, would lead to a slippery slope of increasing water export and a corresponding decrease in environmental quality and water levels.<sup>45</sup> Under this theory, bulk trade in Great Lakes water would snowball into a full blown economy that would grow entrenched in the region, leading to environmental devastation analogous to clear-

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<sup>39</sup> See *id.*

<sup>40</sup> See *id.*

<sup>41</sup> See Jeremy Pearce, *Drops in Lakes Levels Puzzle, Worry Scientists*, DETROIT FREE NEWS, Aug. 30, 1999.

<sup>42</sup> See Jeremy Pearce, *Dormant in Lake, Dangerous Chemicals Could Find Way Back to Food Chain*, DETROIT FREE NEWS, Sept. 2, 1999.

<sup>43</sup> See International Joint Commission, *supra* note 26, at 4.

<sup>44</sup> See *Backgrounder To March 5, 1999 Action Alert: Beyond Levels and Flows: Sustaining the Great Lakes in the Next Millennium*, Canadian Environmental Law Association (visited May 12, 1999) <[www.web.net/~cela/bg-ijc.htm](http://www.web.net/~cela/bg-ijc.htm)> [hereinafter *Backgrounder*].

<sup>45</sup> See *id.*

cutting.<sup>46</sup> A "tragedy of the commons"<sup>47</sup> would ensue where increasing demand would inevitably lead to reckless, destructive levels of diversion and withdrawal. Environmentalists point to what once seemed endless acres of Canadian hardwoods which, after years of harvest, have been vastly depleted.<sup>48</sup> The Great Lakes, also with its seemingly infinite supply, could be on a slope toward a similar fate, where vested economic interests lobby for its continued exploitation.

The slippery slope of water export could lead to unforeseen environmental harm, argue opponents of exportation.<sup>49</sup> Scientists have only begun to understand the complexity of the world's largest freshwater ecosystems.<sup>50</sup> Interactions between man, current diversions, and the tangled web of life dependent on these ecosystems may be imperiled by large diversions of lake water. Although computer modeling may assist in predicting environmental effects, there is no way to account for all the variables in such a complicated natural system, particularly one as large as the Great Lakes.

Opponents also contend that bulk water exports of the kind envisioned for Lake Superior (by tanker) would create few, if any, jobs.<sup>51</sup> Modern equipment would make the extraction a relatively simple process overseen by a small staff, many of whom would be foreign employees of the exporting corporation.<sup>52</sup> Instead of promoting the sale of water, they believe that a better approach to job creation would be the continued marketing of the lakes as a tourist and recreation destination.<sup>53</sup> Tourism, they argue, has the potential for far more employment and has a vested interest in promoting

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<sup>46</sup> See Paul Stanton Kibel, *Canada's International Forest Protection Obligations: A Case Of Promises Forgotten In British Columbia And Alberta*, 6 FORDHAM ENVTL. L.J. 231.

<sup>47</sup> Hardin, *The Tragedy of the Commons*, 168 SCIENCE 1243 (1968).

<sup>48</sup> See Kibel, *supra* note 46.

<sup>49</sup> See *Backgrounder*, *supra* note 44.

<sup>50</sup> See *id.*

<sup>51</sup> See *id.*

<sup>52</sup> See *id.*

<sup>53</sup> See *id.*

heightened environmental standards.<sup>54</sup> Proponents might reply that the export industry is still young. Allowed to grow, diversify and begin paying taxes to the states and provinces, the industry would become a major, environmentally sound source of wealth for North Americans.

In response to exporter's claims that the issue of water export is a humanitarian concern, opponents make two arguments.<sup>55</sup> First, they maintain that exports will benefit only a wealthy elite in other nations and will have no affect on the larger issues of public health and irrigation.<sup>56</sup> The price of bottled water is prohibitive for the portion of the world's population most keenly affected by the public health problems that come with untreated or contaminated water supplies. In addition, it would be impossible for importers to provide enough bottled water to meet the needs of water-starved people in the western United States, Asia or Africa. Second, they argue that water sales provide importing nations with a disincentive to reverse poor water management practices at home.<sup>57</sup> Indeed, providing bottled water to the few able to afford it may act only to postpone the tough decisions such regions must make to stop overexploitation and pollution of their own water supply and to install sustainable water treatment and management systems.<sup>58</sup>

In general, opponents to water exportation feel that while the rest of the planet's fresh water is being rapidly polluted or consumed, the Great Lakes should be set aside as a model of conservation and preservation.<sup>59</sup> Though the waters have been hardstruck by the affects of DDT and persistent organics, the system remains among the best protected in the world.<sup>60</sup> The system should, therefore, continue to be a model of scientific research and policy coordination. Improvements

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<sup>54</sup> *See id.*

<sup>55</sup> *See id.*

<sup>56</sup> *See id.*

<sup>57</sup> *See id.*

<sup>58</sup> *See id.*

<sup>59</sup> *See id.*

<sup>60</sup> *See id.*

in safe management practices will serve as a world model, demonstrating that industry, shipping and municipal uses can exist in harmony with a lake's ecosystems. Of course, advocates of water exportation argue that the limited and carefully monitored exportation of lake waters will have no discernable environmental harm.

Whether tankers bring ballast water into the Great Lakes or carry Great Lakes water abroad, a further complication of water exportation is the continued and possibly worsening spread of exotic species. "Major water extraction may change the environment, altering the habitats of native species and possibly introducing new, exotic species not normally found in the ecosystem," notes Christine Stewart, Canada's environment minister.<sup>61</sup> The Great Lakes are already infested with a number of non-native, exotic plant and animal species, including the round goby, the Eurasian ruffe, the sea lamprey, the spiny water flea, the zebra mussel, and purple loosestrife.<sup>62</sup> Many of these exotics arrived via the ballast waters of international ships plying Great Lakes waters.<sup>63</sup> Over time, they have wreaked havoc on native fish populations and damaged the delicate balance of ecosystems in the lakes. In an effort to prevent the invasion of exotics, the United States passed the Aquatic Nuisance Prevention and Control Act of 1990 (ANPCA), which mandates ballast water exchange of all salt water vessels entering the St. Lawrence Seaway.<sup>64</sup>

Many of these exotic species spread rapidly, overtaking wetland areas, decreasing wildlife habitat, clogging intake gratings, valves and pipes, and generally fouling the water supply.<sup>65</sup> Further spread of such organisms may take place when vessels clean their hulls after dropping their loads, or when their water is placed into holding ponds or lakes. However, as Rick Davidge of Alaska Water

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<sup>61</sup> Mark Bourrie, *Environment Canada: Moratorium on Export of Water*, GLOBAL INFORMATION NETWORK, Mar. 5, 1999.

<sup>62</sup> *See id.*

<sup>63</sup> *See* Great Lakes Sport Fishing Council, *Exotic Species and Their Affect on the Great Lakes* (visited Dec. 1998) <<http://www.great-lakes.org/exotics.html>>.

<sup>64</sup> *See id.*

<sup>65</sup> *See id.*

Exports explained to me, the process of using tankers involves no land storage.<sup>66</sup> In his operation, tankers fill up in Alaska and the water is processed and treated on board the ship. These same tankers act as a temporary storage depot while in port, later pumping the water into an on-land bottling facility.<sup>67</sup> Still, questions remain about how and when the ship would clean out its hulls or empty its filters.

A final argument brought forth by opponents of water exports is the uncertainty of North America's future water supplies due to the effects of global warming.<sup>68</sup> A recent study, the result of a computer modeling project from the Great Lakes Environmental Research Laboratory in Ann Arbor, Michigan, predicted anywhere from an 8 inch to 6 foot drop in lake Michigan water levels by the year 2070.<sup>69</sup> A recent Canadian model foresees a 35 to 50 percent decrease in the amount of water flowing into the Great Lakes form tributaries, resulting in a drop of 39 inches over the next 30 years.<sup>70</sup> Other researchers expect water levels to decline due to higher temperatures and more evaporation, even assuming greater rainfall.<sup>71</sup> Because the possible effects of such warming are unknown, environmentalists argue that the burden of establishing the environmental safety of water exports is on the exporting industry. They site the Precautionary Principle, which advises caution in the face of proposed development where resulting environmental damages are not predictable in light of changing conditions.<sup>72</sup> The Precautionary Principle lifts "the burden of scientific proof necessary for triggering policy responses from those who support prohibiting or reducing a potentially offending activity to those who want to continue the

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<sup>66</sup> Phone Interview with Rick Davidge, Alaska Water Exports (Apr. 20, 1999).

<sup>67</sup> *See id.*

<sup>68</sup> *See* International Joint Commission, *supra* note 26, at 12.

<sup>69</sup> *See* Susan Campbell, *Study Predicts Drop in Great Lakes Levels*, GREEN BAY PRESS GAZETTE, Sept. 25, 1999.

<sup>70</sup> *See id.*

<sup>71</sup> *See id.*

<sup>72</sup> *See* Hunter, *supra* note 21, at 360.

activity."<sup>73</sup> The IJC, in its Interim Report, makes extensive reference to the Precautionary Principle, arguing that scientific uncertainty over lake levels, flow and climate change argue against exportation.<sup>74</sup>

For the time being, proponents of water export seem to have won out in both the United States and Canada, where bans on export are largely in place. However, increasing demands for water and the surging profits that accompany such demands ensure continuing corporate pressure to allow exportation.

#### IV. American and Canadian Law

Canadian and American law affecting the Great Lakes is a twisted tale of state, provincial, national and international treaty. This paper by no means represents a full review of the state of water law in the U.S. or Canada. Instead, it provides an overview of the most important features of North American law affecting the Great Lakes water diversions, particularly examining the respective national bans on the exportation of water.

##### A. United States

Though states retain police power authority over water resources, ultimate lawmaking authority for American portions of the Great Lakes resides in Congress.<sup>75</sup> States may restrict water export out of concern for the health and safety of their citizens,<sup>76</sup> but because the Great Lakes are an interstate body of navigable water, areas within U.S. boundaries are subject to congressional regulation under the Commerce Clause.<sup>77</sup> Using its commerce power, Congress' passed the 1986 Water Resources Development Act (WRDC),<sup>78</sup> the

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<sup>73</sup> Id.

<sup>74</sup> See International Joint Commission, *supra* note 26, at 20.

<sup>75</sup> See Wilder, *supra* note 36, at 471.

<sup>76</sup> See *id.*

<sup>77</sup> See *Sanitary Dist. of Chic. v. U.S.*, 266 U.S. 405, 426 (1924).

<sup>78</sup> 42 U.S.C.A. § 1962d-20 (West 1999).



strongest restriction to date on Great Lakes water export.

The WRDC bans any new diversions, including any type of water export, and even bans any study of possible diversion without unanimous approval from all Great Lakes Governors.<sup>79</sup> Subpart (c) of the Act defines the Great Lakes states as Illinois, Indiana, Michigan, Minnesota, Ohio, Pennsylvania, New York, and Wisconsin. Therefore, the law does not act as an outright ban on exportation, but in respecting the traditional state dominion over water issues, requires the simultaneous approval of governors like Jesse Ventura in Minnesota and George Pataki of New York. Approval of a diversion that would benefit one region at the expense of another is therefore highly unlikely. Importantly, Subpart (d) extends the unanimous approval requirement to include the Great Lakes' tributaries. Section (e) of the law, regarding studies of diversions, limits the need for unanimous governor approval to studies of diversions "for use outside the Great Lakes basin." However, the law exempts studies conducted at the behest of the International Joint Commission or by the U.S. Army Corps of Engineers acting under the aegis of the IJC. Finally, the law exempts from the ban any diversions in existence as of November 17, 1986, such as the Chicago Canal.

The WRDC's requirement of unanimous approval marked a creative and sizeable expansion of control over Great Lakes water export. However, congressional power to stop a diversion of water is clearly spelled out in *Sanitary District v. United States*.<sup>80</sup> There, the Court held that a riparian state could not approve diversions affecting lake levels where there is congressional disapproval because of the possible impact on navigation.<sup>81</sup> Still, the WRDC represents a compromise between the common law practice of state control over water resources and the federal command via the Commerce Clause over navigable waters.<sup>82</sup> Congress passed the WRDC and holds

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<sup>79</sup> *See id.*

<sup>80</sup> *See Sanitary Dist.*, 266 U.S. 405.

<sup>81</sup> *See id.* at 426.

<sup>82</sup> *See Wilder, supra* note 36, at 468.

enforcement powers, but the states retain a degree of their police power role in deciding how best to allocate water among themselves.

## B. Canada

Control of water resources in Canada's provincial and national government is a complex relationship of shared responsibilities.<sup>83</sup> Under the Constitution Act, provinces own water resources, including both surface and groundwater, and are responsible for flow regulation and authorization of water use development. They also have authority to legislate areas of water supply, pollution control, thermal and hydroelectric power development.<sup>84</sup> Federal responsibility lies in areas that have the potential for significant national economic impact, such as navigation and fisheries. Water on federal lands (e.g., National Parks), in the territories, and on the reserves of Canada's aboriginal peoples falls under federal jurisdiction. Finally, the federal government has responsibility for boundary and transboundary waters.<sup>85</sup> This complex relationship of shared responsibility is reflected in the Canadian government's recent attempts to forge a moratorium against water exportation.

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<sup>83</sup> See Environment Canada website (visited May 3, 1999) <<http://www.dfait-maeci.gc.ca>>.

<sup>84</sup> See *id.*

<sup>85</sup> See *id.*

The strategy Canadians have chosen for the banning of water exports reflects its power sharing on water issues.<sup>86</sup> The formula chosen by Canada's Trade and Environment Secretaries includes Amendments to the Boundary Waters Treaty (BWT) to give the federal government regulatory power to prohibit bulk removals from boundary waters, principally the Great Lakes.<sup>87</sup> The two ministers have also developed, in co-operation with the provinces and territories, a Canada-wide accord on bulk water removals to protect Canadian watersheds.<sup>88</sup> The ministers called on those provinces and territories that have not already done so to adopt moratoriums on bulk water removal while the accord is being developed.<sup>89</sup> A few provinces have already rallied to the national call by enacting necessary legislation.<sup>90</sup> British Columbia and Alberta<sup>91</sup> have passed various forms of legislation designed to prohibit the removal of water for export.<sup>92</sup> The Great Lakes province of Ontario, as discussed below, has passed similar legislation. However, the Great Lakes province of Quebec, still smarting from its recently quashed bid for sovereignty, has thus far refused to enact the all-out ban urged by

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<sup>86</sup> See *Strategy Launched to Prohibit the Bulk Removal of Canadian Water, Including Water for Export*, Environment Canada website (visited Feb. 10, 1999) <[http://www.dfait-maeci.gc.ca/english/news/press\\_releases/99\\_press/99\\_023-e.htm](http://www.dfait-maeci.gc.ca/english/news/press_releases/99_press/99_023-e.htm)>.

<sup>87</sup> See *id.*

<sup>88</sup> See *id.*

<sup>89</sup> See *id.*

<sup>90</sup> See *id.*

<sup>91</sup> Water Act, S.A. 1996, c.W-3.5. Section 46(2) reads:

"46 (2) For the purpose of promoting the conservation and management of water, including the wise allocation and use of water, a licence shall not be issued for the purpose of transferring water from the Province outside of Canada by any means, unless the license is specifically authorized by a special Act of the Legislature."

<sup>92</sup> See *Strategy Launched*, *supra* note 86.

Ottawa.<sup>93</sup> Instead, the province has announced a temporary ban on water exports<sup>94</sup> and is moving ahead with a comprehensive review of all provincial water policies while considering the ban.<sup>95</sup> Newfoundland, though not a Great Lakes province, is similarly hesitant about passing an all-out ban on exports.

For years Canada has talked about enacting anti-export legislation, but has failed to do so.<sup>96</sup> The old, Progressive Conservative government was long unconvinced of the urgency for such legislation and the Liberal government has recently been hindered from doing so by Canada's unruly provinces.<sup>97</sup> Canadian export policy is managed federally, but the provinces manage natural resources.<sup>98</sup> Therefore, the federal government must either get provinces to go along with the bulk-water export ban or must act unilaterally, an unappealing prospect in Canada's ever-looser federation.<sup>99</sup>

As stated above, Ontario has passed legislation and written regulations preventing the export of its waters without a permit. The Ontario Water Resources Act (OWRA) prohibits withdrawal of more than 50,000 liters of well or surface water in one day without a permit.<sup>100</sup> Passed in 1999, the Ontario Water Taking and Transfer (OWTT) regulation passed under authority of OWRA, bars any attempt to transfer water outside of the basin from which it was

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<sup>93</sup> See Scoffield & Adams, *supra* note 1.

<sup>94</sup> See *Government of Canada Welcomes Quebec Government's Planned Temporary Measures on Bulk Removal of Freshwater*, Environment Canada website (visited Sept. 6, 1999) <[http://www.ec.gc.ca/press/blk\\_wat\\_n\\_e.htm](http://www.ec.gc.ca/press/blk_wat_n_e.htm)>.

<sup>95</sup> Telephone Interview with Sarah Miller, Canadian Environmental Law Association (Aug. 19, 1999).

<sup>96</sup> See *United States Water Policy*, *supra* note 9.

<sup>97</sup> See *id.*

<sup>98</sup> See *id.*

<sup>99</sup> See *id.*

<sup>100</sup> See Ontario Water Resources Act, Section 34, at <<http://www.ert.gov.on.ca/index30.htm>>

drawn.<sup>101</sup> It, however, specifically exempts products manufactured with water that are then shipped out of the basin<sup>102</sup> and defines products as not including potable water.<sup>103</sup>

According to Paul Muldoon, Executive Director of the Canadian Environmental Law Association (CELA), the Canadian system of regulation is flawed.<sup>104</sup> The group argues for the creation of a comprehensive water diversions database, and an alternative, Sustainable Water Act.<sup>105</sup> CELA argues for a more comprehensive water management plan that would include a permitting system, and a database that would track current water diversions, examining totals from each watershed breaking down users by economic sector.<sup>106</sup>

## V. International Law and Treaties

Before moving to a consideration of treaties directly affecting the Great Lakes, it is useful to review some of the general theories regarding water allocation between riparian States.<sup>107</sup> They are the territorial sovereignty (or Harmon Doctrine) view, the territorial integrity approach and the notion of equitable utilization.<sup>108</sup>

Under the doctrine of territorial sovereignty, states retain total control over all water in or flowing through their territory.<sup>109</sup> Thus, upstream states can use the water any way they please, without regard

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<sup>101</sup> See Regulation Made Under the Ontario Water Resources Act; Water Taking and Transfer; O.REG 285/99 §1 (filed Apr.30,1999), <[http://www.ene.gov.on.ca/envision/env\\_reg/documents/a/ra8e0037.pdf](http://www.ene.gov.on.ca/envision/env_reg/documents/a/ra8e0037.pdf)>.

<sup>102</sup> See *id.* §3(3).

<sup>103</sup> See *id.* §3(4).

<sup>104</sup> See Paul Muldoon & Sarah Miller, *Submission on Regulation Made Under the Ontario Water Resources Act: Water Transfers*, Canadian Env'tl. Law Assoc. Brief # 364, Feb. 16, 1999, <[http://www.web.net/~cela/watransf.htm#N\\_1\\_>](http://www.web.net/~cela/watransf.htm#N_1_>).

<sup>105</sup> See *id.* at 2.

<sup>106</sup> See *id.* at 3-4.

<sup>107</sup> See Hunter, *supra* note 21, at 832-35.

<sup>108</sup> See *id.*

<sup>109</sup> See *id.*

to the interests of the downstream state.<sup>110</sup> This is also known as the Harmon Doctrine, named after the U.S. Attorney General who wrote a famously rigid opinion on the dispute between Mexico and the US over US diversions of the Rio Grande River.<sup>111</sup> Harmon wrote, "The jurisdiction of the nation within its own territory is necessarily exclusive and absolute. It is susceptible of no limitation not imposed of itself."<sup>112</sup> The doctrine has been largely abandoned in international law but is incorporated in the Boundary Waters Treaty.<sup>113</sup>

Territorial integrity represents a view entirely opposite to the idea of territorial sovereignty.<sup>114</sup> Under this conception of good international neighbors, upstream states are not allowed to interfere with the territorial integrity of a downstream state.<sup>115</sup> Here, downstream states have a right to receive the full natural quantity and quality of water and hold a sort of "veto power" over activities in upstream states.<sup>116</sup> As noted below, the Great Lakes Charter and the Boundary Waters Treaty of 1909 reflect the notion of shared decision making.

The doctrine of equitable utilization provides that States in a watercourse share sovereignty over the resource and their interests must be "reasonably balanced."<sup>117</sup> This does not mean, however, that each state receives equal rights.

These three doctrines present themselves on a continuum of cooperation and responsibility for the transboundary affects of a nation's actions. In the treaties that follow, the United States and Canada have created a mixed set of international obligations.

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<sup>110</sup> *See id.*

<sup>111</sup> *See id.*

<sup>112</sup> *Id.* at 833.

<sup>113</sup> *See id.* at 833-34.

<sup>114</sup> *See id.* at 834.

<sup>115</sup> *See id.*

<sup>116</sup> *See id.*

<sup>117</sup> *Id.* at 835.

### A. Boundary Waters Treaty of 1909

The Boundary Waters Treaty (BWT) is not an environmental treaty; it is a treaty designed to open access to navigation along the boundary waters and to provide binational approval processes for new, large-scale water diversions. The criteria used to assess new diversions of water do not consider environmental factors and do not apply to Great Lakes' tributaries. As such, the BWT acts to preserve the territorial sovereignty of the United States and Canada while creating a new bi-national decision-making forum, the previously discussed IJC.

The preliminary article of the BWT defines boundary waters as those lakes and rivers along the international boundary between the U.S. and Canada, "but not including tributary waters which in their natural channels would flow into such lakes, rivers, and waterways."<sup>118</sup> Unlike the American law prohibiting water exportation from the Great Lakes and its tributaries, the BWT, in explicit terms, omits the tributaries from consideration.

Article II of the BWT sets forth an application of the Harmon Doctrine explored above, stating that, subject to other provisions of the BWT, each nation, state or province reserves exclusive sovereignty over the waters within its own boundaries.<sup>119</sup> It also provides that any new diversions causing injury to parties on either side of the border will entitle them to "the same legal remedies as if the injury [had taken] place in the country where such diversion or interference occurs."<sup>120</sup> However, that sovereignty is constrained by Article III's prohibition against any new diversion, "whether

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<sup>118</sup> Boundary Waters Treaty of 1909, Jan. 11, 1909, U.S.-Gr.Brit., Prelim. Art., 36 Stat. 2448.

<sup>119</sup> See *id.* at Art. III.

<sup>120</sup> *Id.*

temporary or permanent”<sup>121</sup> that will affect “the natural level or flow of boundary waters on the other side of the line,”<sup>122</sup> without the approval of the IJC.

Article VIII of the BWT provides the IJC with priorities to be given new (post 1909) water diversions. First priority is to be given to “Uses for domestic and sanitary purposes.”<sup>123</sup> Second priority is given to “uses for navigation, including the service of canals for the purposes of navigation.”<sup>124</sup> Third priority is given to “uses for power and for irrigation purposes.”<sup>125</sup> Domestic use under the treaty is not specifically restricted to households within the basin; arguably, the bulk sale of drinking water intended for non-basin household’s use would also fit within the treaty’s first priority.

The BWT, therefore, provides little that might be used to prevent the bulk sale of Great Lakes water. Unless proposed diversions would cause a drop in lake levels, which is hardly likely in the initial stages of export, there is no need for IJC approval. Also, the treaty excludes major diversions from Great Lakes’ tributaries, a gaping loophole, which could be readily exploited by companies wishing to export.

## B. Great Lakes Charter

The international law of the Great Lakes is supplemented by the Great Lakes Charter, a non-binding agreement between the Great Lakes U.S. states and Canadian provinces. Under the terms of the Charter, signatories are to consult with and seek the consent of other signatories when planning new diversions.

Under Principle IV of the Charter, each of the Great Lakes states and Provinces has agreed that no “major new or increased diversion or consumption of the water resources of the Great Lakes

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<sup>121</sup> *Id.* at Art. II.

<sup>122</sup> *Id.*

<sup>123</sup> *Id.* at Art. VIII

<sup>124</sup> *Id.*

<sup>125</sup> *Id.*



Basin"<sup>126</sup> will go forth without "seeking the consent and concurrence"<sup>127</sup> of the signatories. Specifically, the Charter applies to all new diversions exceeding 5,000,000 gallons per day in any 30-day period.<sup>128</sup> Unlike the BWT, however, the Charter encompasses the entire Great Lakes Basin, including all tributaries, in the scope of the agreement.

The Charter, with its expansive, basin-wide reach and clear definitions may serve as a stumbling block to those wishing to export water. However, because its provisions are voluntary and signed by states rather than national parties, it is highly unlikely that the Charter will ever prove a barrier to bulk water exports.

### C. North American Free Trade Agreement (NAFTA)

In December of 1992, the United States, Canada, and Mexico finalized the North American Free Trade Agreement, reducing trade barriers and tariffs between the three countries. Its passage has worried environmentalists on both sides of the Canadian-American border because of interpretations that could decrease the ability of a nation to take environmentally-based measures to shield a resource from exploitation. This fear is a primary reason for the recent Canadian announcement, described above, to uniformly ban the bulk export of Canadian water.<sup>129</sup>

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<sup>126</sup> Great Lakes Charter, Princ. IV.

<sup>127</sup> *Id.*

<sup>128</sup> *See id.*

<sup>129</sup> "[The ban] reaffirms the Government's long-standing position opposing bulk water removal. It is also consistent with the statement by the three NAFTA countries in 1993 that 'unless water in any form has entered into commerce and become a good or product, it is not covered by the provisions of any trade agreement, including the NAFTA'." *Strategy Launched to Prohibit the Bulk Removal of Canadian Water, Including Water for Export*, Environment Canada website (visited February 10, 1999) <[http://www.dfait-maeci.gc.ca/english/news/press\\_releases/99\\_press/99\\_023-e.htm](http://www.dfait-maeci.gc.ca/english/news/press_releases/99_press/99_023-e.htm)>.

Canadians were worried about the NAFTA for two main reasons.<sup>130</sup> First, the treaty's predecessor, the Free Trade Agreement (FTA), was negotiated against the background of renewed interest in water diversion schemes.<sup>131</sup> One monstrous earthworks program envisioned the use of nuclear powered pumping stations to bring Canadian water down the Rockies, flooding the Rocky Mountain trench.<sup>132</sup> Prime Minister Mulroney made favorable remarks about the proposal. The chief Canadian FTA negotiator commented favorably on the trade potential for Canadian water exports and had once served as a lobbyist for another grandiose Canadian water diversion, the GRAND Canal.<sup>133</sup> The GRAND Canal scheme envisioned the damming of James Bay in Canada to ferry water southward via the Great Lakes.<sup>134</sup> As Mexico and the United States faced increasing demands on ever-dwindling sources of water, the treaty was seen by Canadians as a backdoor means for the U.S. and Mexico to secure cheap and ready access to Canadian resources.<sup>135</sup> Second, the NAFTA's text and the Canadian government seemed oblivious to the threat of Canadian exploitation.<sup>136</sup> Specifically, the NAFTA attracted attention from environmentalists in Canada because it limited the possibility that other measures be used under the General Agreement on Tariffs and Trade (GATT) to constrain water exports, especially minimum export prices and export taxes.<sup>137</sup>

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<sup>130</sup> See Scott Phillip Little, *Canada's Capacity to Control the Flow: Water Export and The North American Free Trade Agreement*, 8 PACE INTL. L. REV., 127, 133.

<sup>131</sup> See J. Owen Saunders, *Symposium: Trade Agreements & Environmental Sovereignty: Case Studies from Canada*, 35 SANTA CLARA L. REV. 1171, 1181.

<sup>132</sup> See *id.*

<sup>133</sup> See *id.*

<sup>134</sup> See *id.*

<sup>135</sup> See *id.*

<sup>136</sup> See *id.*

<sup>137</sup> See J. Owen Saunders, Executive Director, Canadian Institute of Resources Law, & Adjunct Professor, Faculty of Law, University of Calgary, Alberta, e-mail, (Apr. 1999).

The NAFTA's Article Three has been a further source of concern, though that fear is largely unjustified in light of other NAFTA language. NAFTA utilizes the GATT Article 201 definition of Goods of a Party to be "domestic products as these are understood in the General Agreement of Tariffs and Trade or such goods as the Parties may agree."<sup>138</sup> Under the GATT, water is further defined: "Waters, including natural or artificial mineral water and aerated waters, not containing added sugar or other sweetening matter nor flavored; ice and snow."<sup>139</sup> Such a definition has led many to believe that water could qualify as a trade good under the NAFTA. Article 301 of the Agreement requires that each Party "accord national treatment of the goods of another party in accordance with Article III of the GATT."<sup>140</sup>

Two factors mitigate the restrictive affects of Chapter Three. First, a joint Mexican, American and Canadian statement made on December 2, 1993, announced that the NAFTA creates no rights to the natural water resources of any Party to the Agreement.<sup>141</sup> The parties agreed in this non-binding manner that unless water actually becomes a traded commodity, it will not be regulated as such under Chapter Three's provisions. Second, Article 201 of NAFTA substantiates this view; for an item to be a good under NAFTA, it must be a "product" under GATT. It seems, then, that water would have to be taken from its natural source and put in tanks or pipelines before it would be considered a tradable product.<sup>142</sup> Therefore, until Great Lakes' states and provinces get in the business of bulk water exports, they have not lost the ability under Article Three to control their water. Further, because national treatment obligation does not apply to exports in the same manner that it applies to imports, such states and provinces are not legally bound to make water available in

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<sup>138</sup> General Agreement on Tariffs and Trade, Art. 201

<sup>139</sup> Little, *supra* note 130, at 134.

<sup>140</sup> *Id.* at 135.

<sup>141</sup> *See id.* at 140.

<sup>142</sup> *See id.*

its natural state, or as a good to other NAFTA countries.<sup>143</sup> Under the national treatment obligation of Chapter Three, each country possesses complete control over its water resources up to the moment it grants another NAFTA country a license for the exportation of its water.<sup>144</sup>

A more troublesome provision is the NAFTA's Chapter Eleven, which imposes national treatment obligations upon the Parties to the Agreement with regard to foreign investment.<sup>145</sup> This section seeks to protect a broad, vaguely defined reach of investments, covering nearly any proprietary right held by a NAFTA Party.<sup>146</sup> Chapter Eleven could be interpreted to read that American investors in supertankers carrying water out of British Columbia must be extended the same treatment as domestic license holders.<sup>147</sup> For example, once the decision to grant a water export license has been made, Article 1106 (1)(a) provides that no Party can restrict the amount taken.<sup>148</sup>

There are, however, portions of the NAFTA which allow for a Party to object to water exports on environmental grounds. The one arguable, and rarely mentioned exception is the NAFTA's treatment of GATT Article XX(b) (the exception for measures relating to human, animal or plant health), which the NAFTA parties explicitly interpret in Article 2101(1) as including environmental measures.<sup>149</sup> While it is arguable that the trend in GATT jurisprudence is heading in the direction of increased environmental consideration, the

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<sup>143</sup> *See id.*

<sup>144</sup> *See id.*

<sup>145</sup> *See id.* at 145.

<sup>146</sup> *See id.*

<sup>147</sup> *See id.* at 146.

<sup>148</sup> *See id.* at 147.

<sup>149</sup> *See* Saunders, e-mail, *supra* note 137.

NAFTA removes any ambiguity.<sup>150</sup> This is a rare example of an instance where NAFTA increases room for escaping from trade obligations when compared to the GATT.<sup>151</sup>

A similar, environmentally-based measure is the GATT provision XX(g), incorporated into NAFTA. It permits export restrictions relating to the conservation of exhaustible natural resources such as water. However, in this provision, affected countries cannot put restrictions on the export of water without corresponding restrictions on domestic consumption.

The provisions of NAFTA could represent serious challenges to U.S. and Canadian abilities to restrict the exportation of Great Lakes waters. However, as long as a U.S. and Canadian moratorium prevents water from emerging as a commodity, there is little fear that private parties could make successful demands under NAFTA for unlimited withdrawals.

## VI. Other International Sales of Water

Though Canada and the United States seem to have put a stop to sales of water from the Great Lakes, the state of Alaska and some nations are beginning to reap profits from the sale of other waters. In Alaska, private water companies have signed contracts with Hong Kong and Singapore to provide drinking water from pristine Alaskan lakes.<sup>152</sup> The tiny African nation of Lesotho is already receiving royalty payments from South Africa for shipments of its water. Malaysia currently sells untreated water to Singapore; Singapore treats the water and sells it back to Malaysians at a profit. Finally, there are examples of municipal water companies in Scotland and New Zealand looking to lower pricing at home by increasing profits through sales abroad.

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<sup>150</sup> See *id.*

<sup>151</sup> See *id.*

<sup>152</sup> See Phone Interview, Ric Davidge, *supra* note 66.

In Alaska, a company called Alaska Water Exports plans to ship water by the tanker load to China.<sup>153</sup> According to Ric Davidge, President of Alaska Water Exports, his organization will ship the water in scrubbed tankers to Hong Kong where it will be offloaded to an on-land bottling plant for distribution.<sup>154</sup> Mr. Davidge was instrumental in writing Alaska's water export statutes, a potentially useful guide in regulating future sales of Great Lakes waters.<sup>155</sup> Alaska's water export law requires the Water Commissioner's approval for either the state's or a private party's sale of water. In either case, the law provides that withdrawals be made at a state facility, necessitating the payment of a user's fee to the state.<sup>156</sup> When a state sells water, the law requires, among other things, that the Commissioner determine that the "water is surplus to needs within the hydrologic unit from which it was appropriated,"<sup>157</sup> and that "the sale price is based upon the fair market value of the water."<sup>158</sup> Similar restrictions apply to private parties wishing to export Alaskan water.<sup>159</sup> The sale of Alaskan waters over the coming years and the strength of its statutes in preventing abuses will serve as an interesting test case for other potential exports.

The Kingdom of Lesotho (KOL), a tiny, water-rich mountain kingdom surrounded entirely by South Africa, entered into a sales contract to provide water to the Republic of South Africa's (RSA) dry, industrial heartland. In return for providing a reliable source of water, the South African government has signed a comprehensive treaty that guarantees millions of dollars in royalties to Lesotho.<sup>160</sup> The centerpiece of the \$2 billion Lesotho Highlands Water Project

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<sup>153</sup> See *id.*

<sup>154</sup> See *id.*

<sup>155</sup> See *id.*

<sup>156</sup> See *id.*

<sup>157</sup> AK St. Sec. 46.15.037 (a)(2)(A) Sale of Water by the State

<sup>158</sup> AK St. Sec. 46.15.037 (a)(2)(C) Sale of Water by the State

<sup>159</sup> AK St. Sec. 46.15.035

<sup>160</sup> See Fred O. Boadu, *Relational Characteristics of Transboundary Water Treaties: Lesotho's Water Transfer Treaty with the Republic of South Africa*, NATURAL RESOURCES JOURNAL, Summer 1998, at 399.

(LHWP)<sup>161</sup> is the recently completed Katse dam that catches water from Lesotho's highlands and ferries it via an elaborate system of dams and underground tunnels to South Africa.<sup>162</sup> The project will transfer about 910 cubic feet of water a second from Lesotho to six of South Africa's nine provinces. This includes the South African province of Gauteng, the country's economic and industrial powerhouse, home to the cities of Pretoria and Johannesburg.<sup>163</sup>

The Treaty has much to teach about creation of independent, bi-national agencies<sup>164</sup> and the computation of water royalties. The KOL-RSA Treaty created several entities charged with joint implementation of what is now the largest African public works project.<sup>165</sup> The joint, KOL/RSA-run Lesotho Highland Development Authority (LHDA) is responsible for construction, resettlement and compensation matters.<sup>166</sup> The Trans-Caledon Tunnel Authority (TCTA), an RSA-run entity, is responsible for implementing the country's treaty obligations with the KOL.<sup>167</sup> The Joint Permanent Technical Commission (JPTC) is composed of diplomats from each country who coordinate the operation of the other two entities.<sup>168</sup> The JPTC has "full legal personality" within each country and is not subject to legal action in either country.<sup>169</sup> JPTC members have been awarded the rank and full diplomatic immunity of diplomats.<sup>170</sup> By creating agencies supervised by staff from each country, the parties hope to forge a cooperative, transparent, and mutually beneficial

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<sup>161</sup> See *id.*

<sup>162</sup> See *id.*

<sup>163</sup> See *id.* at 399-402.

<sup>164</sup> See *id.*

<sup>165</sup> See GLEICK, *supra* note 5, at 93.

<sup>166</sup> See *id.*

<sup>167</sup> See Boadu, *supra* note 160, at 399.

<sup>168</sup> See *id.*

<sup>169</sup> *Id.* at 402.

<sup>170</sup> See *id.*

system of administrating and awarding project benefits. In doing so, the parties lent the treaty "a life of its own, [protecting] it from potentially subversive domestic legislation."<sup>171</sup>

Annual royalty payments to the KOL total \$13.6 million,<sup>172</sup> independent of the supply of water provided. Should the supply fall short in one year, the KOL is allowed to make up the deficit in coming years.<sup>173</sup> Maintaining a consistent level of payment to the KOL provides the tiny, developing nation a steady and reliable source of cash that can be used to leverage long-term development projects.<sup>174</sup> The arrangement is a useful paradigm for cooperative management of a water source that works to the benefit of both parties, and might serve as a useful model for other international sales of water.

Malaysia's water relations with Singapore have created a diplomatic stir in the last two years. Malaysia provides untreated drinking water to its neighbor, Singapore, and Singapore treats the water and sells a portion of it back to Malaysia at a profit.<sup>175</sup> Malaysian Prime Minister, Dr. Mahathir Mohamad, is never slow to remind Singapore where half of its water comes from.<sup>176</sup> Though rarely stated explicitly, the threat of turning off the taps hangs unspoken over the many disagreements between the neighbors.<sup>177</sup> A senior Malaysian official, in his recently published memoirs, said the Malaysian prime minister at the time of Singapore's withdrawal from the Federation of Malaysia in 1965 wanted to "control Singapore through the supply of water. . ."<sup>178</sup> However, Singapore has raised the

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<sup>171</sup> *Id.* at 398.

<sup>172</sup> *See id.* at 387.

<sup>173</sup> *See id.* at 404.

<sup>174</sup> *See id.* at 405.

<sup>175</sup> *See Premier Mahathir Criticizes Singapore for Raising Old Issues*, BBC SUMMARY OF WORLD BROADCASTS, Sept. 16, 1998.

<sup>176</sup> *See Jason Gagliardi, A Future Where Every Drop Counts Water Shortages May Lead to Crises in the Next Century*, SOUTH CHINA MORNING POST, Mar. 27, 1999.

<sup>177</sup> *See id.*

<sup>178</sup> *Id.*



stakes itself by treating Malaysian water and selling it back at a hefty profit.<sup>179</sup> "Malaysian officials say they 'almost fell off their chairs' last August when Singapore requested an increase to 750 million gallons per day - almost triple its average daily need."<sup>180</sup> Singapore is also investigating the purchase of water from the Vancouver-based Global Water Corporation, which has a 15-year license to take 18.2 billion liters of water a year from Blue Lake in Alaska.<sup>181</sup> In the meantime, another Malaysian state is attempting to sell greater amounts of untreated water and the nation is negotiating with Singapore to sell large amounts of more expensive treated water.<sup>182</sup>

The Malaysia-Singapore relationship eerily portends what may become of the Canada/United States-Mexico relationship as water supplies in the desert southwest and California are strained and large-scale water export becomes a necessity. A temporary dry spell that sees golf courses and lawns going brown and swimming pools emptied may be the beginning of a long and contentious relationship. Once the taps have been turned on, as they have from Malaysia to Singapore, it is difficult or impossible to turn them off. Inevitably, dependency develops as the water-poor recipient's population grows accustomed not to conservation but to a continued supply of fresh water. The water providing nation has, in some respects, lost control over its own natural resources as it becomes morally untenable to increase the cost of water or to cut the flow. However, Singapore and Malaysia have avoided conflict thus far by negotiating water contracts well into the future; the current arrangement, signed in 1961, is slated to conclude in 2061.<sup>183</sup> The next contract is being discussed now and will also run for 100 years.<sup>184</sup> By concluding long range agreements

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<sup>179</sup> *See id.*

<sup>180</sup> *Id.*

<sup>181</sup> *See id.*

<sup>182</sup> *See Treated Water May be Sold to Singapore Under New Pact*, THE NEW STRAIGHTS TIMES, Apr. 12, 1998.

<sup>183</sup> *See Ivan Gan, Singapore-Malaysia: Again, Testy Neighbors' Ties Hit a Snag*, INTER PRESS SERVICE, July 26, 1999.

<sup>184</sup> *See id.*

well in advance of terminating previous agreements, the parties have thus far avoided serious disputes. The arrangements made and political hurdles overcome between Malaysia and Singapore present a valuable lesson for Great Lakes policymakers.

Complicating the issue of international bulk water sales is the rise of private water companies<sup>185</sup> wishing to sell off excess municipal water. With the growth of private municipal suppliers in North America, the issue could become increasingly relevant to the Great Lakes Basin.<sup>186</sup> In Scotland, for example, the private company, West of Scotland Water, was talking to three of its privatized English counterparts about shipping water to them in 100,000-ton tankers, following two years of drought in the South.<sup>187</sup> The public sector authority thinks exports could cut planned increases in its customers' water and sewerage charges.<sup>188</sup> However, the exportation of water to England has faced considerable opposition in the past.<sup>189</sup> Crawford Beveridge, chief executive of Scottish Enterprise, faced calls for his resignation in 1993 after the economic development agency suggested a pipeline to export water to England.<sup>190</sup>

In New Zealand, a public water agency wants to sell drinking water to the Middle East. The region uses about 150 megalitres of the 190 megalitres available each day; the 40 megalitre surplus could fill one tanker ship per day.<sup>191</sup> The municipality, which supplies water to Wellington and surrounding communities, believes it can make a premium of about \$5 per cubic meter, 10 times the price paid by local

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<sup>185</sup> See Barton H. Thompson, Jr., *Privatization of Municipal Water Supplies*, ABA NATURAL RESOURCES, ENERGY AND ENVIRONMENTAL LAW NEWSLETTER, May/June, 1999, Vol. 30, No. 5. at 1.

<sup>186</sup> See *id.*

<sup>187</sup> See Ian McConnell, *Moves to Ship Water South*, The Glasgow Herald, August 14, 1997, at 1.

<sup>188</sup> See *id.*

<sup>189</sup> See *id.*

<sup>190</sup> See *id.*

<sup>191</sup> See Lidia Zatorski, *Water Export Plans Stall; Maori Tell WRC Talk to Us First*, THE EVENING POST (Wellington), Oct. 2, 1996, at 1.

authorities.<sup>192</sup> Legislators in the Great Lakes region wishing to block water exportation by denying new use permits to water suppliers, therefore, must account for existing, permitted municipal water suppliers whose private owners might wish export water. Municipal water suppliers, with infrastructure, permits, and a ready water supply, are uniquely positioned to profit from potential water sales. An increasing push to privatize or downsize the functions of government coupled with an ever-increasing demand for services, might encourage municipal water suppliers in the Great Lakes Basin to enter the private market for water exportation. Any future policy of banning or restricting exports should therefore account not only for private, newly permitted companies, but also for municipal water providers.

Whether those in the Great Lakes Basin decide to export water or to ban exportation, the experience of other nations can provide insight into the pitfalls of poor planning and the rewards of thoughtful, long-term arrangements. From 100-year contracting in Asia to the creation of independent, multinational export agencies in South Africa to the rising tide of municipal water privatization, water policy for the world's largest supply of fresh water must look elsewhere in preparation for a potentially arid new millenium.

## VII. Conclusion

With global warming, shrinking groundwater resources, continued large scale migrations to the desert American southwest, and a growing world population, the worldwide demand for potable water will continue to increase. Canada and the United States need to take steps now to ensure the sound and responsible management of the Great Lakes Basin and can begin by considering the following recommendations:

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*See id.*

1. In light of the deficiencies of the present Boundary Waters Treaty, the United States and Canada should negotiate a comprehensive addendum to the treaty to make provisions for the diversion of water from all Great Lakes and their tributaries. The process, despite divisive federal-provincial politics in Canada, cannot be left up to the eight states and two provinces to decide. Should a consensus emerge to allow limited exportation, there would arise a need for international monitoring of adherence to limits on amounts taken—a clear role for national governments and the IJC. Should a consensus emerge that further withdrawals be banned, as recommended by the IJC, national governments would be better served by creating a uniform, internationally agreed upon set of terms for barring export and monitoring compliance. Leaving it up to individual provinces, as Canada has done thus far in its fear of further straining relations with Quebec, will result in a poorly understood, poorly enforced patchwork of regulation. Therefore, an addendum to the BWT should be negotiated to clearly spell out the basin's policy on water exportation, whether from groundwater, tributaries or the Great Lakes themselves. The agreement should include the creation of a scientific body to monitor all current diversions and to report on their impact on Great Lakes water levels, wildlife, and lake ecosystems, as previously recommended by the IJC.<sup>193</sup>

2. Canada and the United States, via the IJC, should commission the funding of further computer modeling projects with the ability to consider changing lake

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See International Joint Commission, *supra* note 26, at ix.

variables, including new diversions and changes in average temperatures. Even the IJC, the body charged with approving and monitoring Great Lakes diversions, was forced to use old water data in issuing its report and called in its recommendations for greatly improved monitoring of water levels. Such a system would become increasingly useful as pressures mount to increase diversions from the lake, either at existing diversion sites, from tributaries, or from tanker ships. Of course, no amount of computer modeling can provide easy answers to the complicated, politically charged controversy of water export. However, given the sophistication of modern computer modeling, such a system would be invaluable in making important policy decisions.

3. Mexico, the United States and Canada should formalize the status of surface waters as a non-“good” under NAFTA. A simple handshake agreement is a grossly inappropriate means of protecting Great Lakes and Canadian waters, if that is what Canadians and Americans wish to do.

4. Though the IJC has come out against the export of Great Lakes waters, it would be appropriate to compile a library of international arrangements governing the sale of water. The IJC does not have the power to ban water exports. The great delay in implementing anti-export legislation in Quebec, the leaky water laws in Ontario, and the inability of the Canadian government to impose a national ban of its own, suggest that water exports remain a viable possibility for the future. Therefore, the IJC should commission a study looking at international sales of water from around the globe to gather lessons and information to assist in either the future ban or limited

sales of Great Lakes waters. The IJC could examine the South African experience, the charged politics of water supply in the Middle East, the complex water relationship between Malaysia and Singapore, and the rising tide of privatization in municipal water supplies in an effort to gather data and compile a listing of best and worst practices. The contracts, treaties and organizational structures of water exportation around the globe would prove useful to the IJC and the governments it serves.

