



HOUSE OF COMMONS
CANADA

**THE GREAT LAKES CHARTER ANNEX 2001
IMPLEMENTING AGREEMENTS**

**REPORT OF THE STANDING COMMITTEE
ON ENVIRONMENT AND SUSTAINABLE DEVELOPMENT**

**Alan Tonks, M.P.
Chair**

November 2004

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THE STANDING COMMITTEE ON ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

has the honour to present its

SECOND REPORT

In accordance with its permanent mandate under Standing Order 108(2) and the motion adopted by the Committee on October 21, 2004, your Committee undertook, beginning in October 2004, a study of the Great Lakes Charter Annex 2001 Implementing Agreements.

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THE GREAT LAKES CHARTER ANNEX 2001 IMPLEMENTING AGREEMENTS

... you have to be darned careful about what you start doing, because if you're dealing with something of this nature it may be very difficult, if not impossible, to turn it around.

The Right Honourable Herb Gray, Chair of the
Canadian Section of the International Joint
Commission¹

INTRODUCTION

The Great Lakes Basin contains such an enormous amount of freshwater that it is all too easy to take it for granted. Only a very small portion of this water is renewable and we cannot be complacent about its management.

The population of the Basin relies on the Great Lakes for a clean supply of water to meet their immediate needs. The economies of the Basin are also highly dependent on flows and water levels. The ecological integrity of the Lakes and the services that they provide are clearly dependent on the quality and quantity of the water within the Basin.

It is clear that humans have reduced the ecological integrity of the Lakes. Inputs of phosphate into the Lakes led to massive blooms of algae in Lake Erie. Toxic chemicals have built up in water and sediments. Invasive alien species such as the zebra mussel have been and continue to be introduced with dramatic and likely permanent consequences.

Human activity can have an impact on water quantities as well. Already diversions out of the Great Lakes are equivalent to over 1% of the total natural flow out of the Basin. So far this is more than balanced by diversions into the Basin, but it is clear that diversions can impact levels and flows of the Great Lakes system. It is also possible that the cumulative impacts of smaller withdrawals could also impact the ecological integrity of the Basin.

In addition, should greenhouse gas emissions warm the region as predicted, water will evaporate more readily, and at the same time demands for water will almost certainly increase.

¹ Suggesting a possible conclusion for the Committee, *Evidence*, 2 November 2004.

With the need for care of this precious resource in mind, federal, state and provincial governments have introduced a wide array of management regimes in order to protect the ecological and resource integrity of the waters of the Great Lakes. The latest management tool is an annex to the Great Lakes Charter signed in 2001 by the governors of the Great Lakes states and the premiers of Ontario and Quebec. In July of 2004, two draft implementing agreements for this annex were released for a 90-day discussion period.

The Draft Implementing Agreements were apparently released in a rush to meet a three year deadline. There seems little doubt that the Agreements as written will not survive as is, since the government of Ontario has already rejected the Draft International Agreement and the U.S. State Department as well as the Attorney General of Michigan have both stated clear reservations.

The Canadian government has yet to respond to the draft agreements. Given the importance of the Great Lakes to Canada, the House Standing Committee on Environment and Sustainable Development (the Committee) decided to study the agreements in order to better understand their implications and to make recommendations on how the federal government should respond.

Some Quick Facts* (numbers approximate):	
Volume of the Great Lakes:	22,000 cubic kilometres
Flow Through (water renewed):	220 cubic kilometers per year or 6910 cubic metres per second (1 % of the total volume per year)
Flow of Chicago Diversion:	88 cubic metres per second (1.3% of total flow)
Population of Great Lakes Basin:	42 million ²
* As modified from Great Lakes Information Network, http://www.great-lakes.net/envt/water/levels/flows.html , accessed 17 November 2004.	

THE ISSUE

It is now not just the 42 million people in the basin who desire the water of the Great Lakes. Because of the natural topography of the land, the surface water boundary of the Basin in many places lies very close to the lakes. Population growth in these areas, particularly in the United States, is creating unprecedented demand to export water from the Basin.

² The Great Lakes Information Network states the population on the U.S. side of the basin at 24,033,244 from the 2000 U.S. census while the 2001 Canadian census states 17,698,641 in the Great Lakes St. Lawrence Basin (Statistics Canada, Human Activity and the Environment, 2004).

Some areas have already depleted their groundwater supplies to the extent that groundwater which used to flow into the Great Lakes now flows away. In the future, particularly if the climate changes to more dry conditions, demand outside of the Basin for Great Lakes water will likely increase dramatically. Management of this water will become more and more difficult.

BOUNDARY WATERS MANAGEMENT: THE STATUS QUO

The Boundary Waters Treaty

The *Boundary Waters Treaty (BWT)*³ was signed in 1909, and remains the fundamental tool by which the Great Lakes are managed cooperatively by the governments of the United States and Canada. It provides the principles and mechanisms to help resolve disputes and to prevent future ones, primarily those concerning water quantity and water quality along the boundary between Canada and the United States.⁴

Before Canada was granted formal independence by the *Statute of Westminster, 1931*, many treaties affecting this country were entered into by Great Britain on Canada's behalf. Such treaties are referred to as "Empire treaties". Where they required internal implementation by legislation or otherwise, the parliament and government of Canada were given the power to do so by section 132 of the *Constitution Act, 1867*. Since the *BWT* is an empire treaty the federal government has authority to implement it.

Boundary waters in the *BWT* are defined in such a way as to exclude "tributary waters which in their natural channels would flow into such lakes, rivers, and waterways, or waters flowing from such lakes, rivers, and waterways, or the waters of rivers flowing across the boundary." There is also some question as to whether or not the waters of Lake Michigan are boundary waters as defined under the Treaty.

The Treaty contains a number of articles particularly relevant to this study. Under Article III of the Treaty:

... no further or other uses or obstructions or diversions, whether temporary or permanent, of boundary waters on either side of the line, *affecting the natural level or flow of boundary waters on the other side of the line* shall be

³ *Treaty Between the United States and Great Britain Relating to Boundary Waters, and Questions Arising Between the United States and Canada.*

⁴ International Joint Commission, "What is the *Boundary Waters Treaty*?", Preface to the Treaty Between the United States and Great Britain Relating to Boundary Waters, and Questions Arising Between the United States And Canada.

made except by authority of the United States or the Dominion of Canada within their respective jurisdictions *and with the approval, as hereinafter provided, of a joint commission, to be known as the International Joint Commission.*⁵

Under Article VIII, the International Joint Commission (IJC) has jurisdiction over and passes upon all cases involving the use or obstruction or diversion of the waters under Article III. This article further elaborates that “The High Contracting Parties shall have, each on its own side of the boundary, equal and similar rights in the use of” boundary waters.

Article IX of the Treaty states that the Parties agree that further questions or matters of difference can be referred to the IJC by *either* Party. The decisions made by the IJC in these cases are not considered law or equivalent to an arbitral award. In practice, the Committee learned that referrals have always been made jointly, as a referral by an individual party would apparently weaken the impact of the non-binding recommendations.⁶

Binding recommendations can be made by the IJC if a joint referral is made under Article X. Such a referral, however, requires approval of the United States Senate and Canadian cabinet, and has never been used.

The *BWT* has formed the foundation of cooperation between the U.S. and Canada on boundary water issues for over a century. Two strong positive aspects of this treaty for Canada became apparent in the testimony. First the *BWT* enshrines equal rights to use of boundary water. Secondly, the IJC is made up of three commissioners from each side of the border whose job it is to implement the Treaty, not to represent their respective governments. Canada therefore has both equal status at the IJC and access to boundary waters despite its much smaller population.

A number of weaknesses were also pointed out. As mentioned, the *BWT* does not cover tributary waters or groundwater. In addition, since the Treaty is over a century old, environmental concerns were not considered in the negotiations and so are not mentioned explicitly in it.

The Great Lakes Water Quality Agreement

The Great Lakes Water Quality Agreement (GLWQA), first signed in 1972 and renewed in 1978, expresses the commitment of each country to restore and maintain the chemical, physical and biological integrity of the Great Lakes Basin

⁵ Emphasis added.

⁶ Right Honourable Herb Gray, *Evidence*, 2 November 2004.

Ecosystem and includes a number of objectives and guidelines to achieve these goals. It reaffirms the rights and obligation of Canada and the United States under the *BWT* and has become a major focus of IJC activity.

The IJC monitors and assesses progress under the GLWQA and advises Governments on matters related to the quality of the boundary waters of the Great Lakes system. The GLWQA also calls upon the IJC to assist the governments with joint programs under the GLWQA, and provides for two binational boards — the Great Lakes Water Quality Board and the Great Lakes Science Advisory Board — to advise the IJC.⁷

Managing Bulk Water Removals and Diversions

In April 1998, the Ontario Government granted a permit to NOVA Group to export 600 million litres of water per year from Lake Superior. The permit was subsequently withdrawn, but the incident brought attention to the possibility of bulk water removals and their potential impacts on the Great Lakes. This in turn caused state, provincial, and federal governments to re-examine the strength and adequacy of the legal foundations upon which water management authorities rest.

1. Canada

In Canada the federal government introduced a three-pronged strategy regarding bulk water removals. The three parts of the strategy were to:

- make a joint U.S.-Canada referral to the IJC regarding water uses;
- introduce changes to the *International Boundary Waters Treaty Act*; and
- invite provincial collaboration through a federal/provincial accord.

The first two actions have been fulfilled. The IJC released an interim report in August of 1999 and the final report⁸ in February of 2000, and it followed up with a

⁷ International Joint Commission, "What is the Great Lakes Water Quality Agreement?", Preface to the Great Lakes Water Quality Agreement of 1978, Agreement, with Annexes and Terms of Reference, between the United States and Canada signed at Ottawa, 22 November 1978 and Phosphorus Load Reduction Supplement signed 16 October 1983 as amended by Protocol signed, 18 November 1987 <http://www.ijc.org/rel/agree/quality.html> accessed, 17 November 2004.

⁸ Protection of the Waters of the Great Lakes — Final Report to the Governments of Canada and the United States February 2000, <http://www.ijc.org/php/publications/html/finalreport.html> accessed 18 November 2004.

review of its recommendations in August of 2004. The recommendations of the year 2000 report are attached as an appendix to this report.

Changes to the *International Boundary Waters Treaty Act* (IBWTA) came into force in December of 2002. The changes effectively ban bulk water removals from the boundary waters where:

... “removal of boundary waters in bulk” means the removal of water from boundary waters and taking the water, whether it has been treated or not, outside the water basin in which the boundary waters are located

(a) by any means of diversion, including by pipeline, canal, tunnel, aqueduct or channel; or

(b) by any other means by which more than 50,000 L of boundary waters are taken outside the water basin per day.⁹

It is significant to note that the changes to the Act were based on the premise that:

... removing water from boundary waters and taking it outside the water basin in which the boundary waters are located is deemed, given the cumulative effect of removals of boundary waters outside their water basins, to affect the natural level or flow of the boundary waters on the other side of the international boundary.¹⁰

While not all provinces agreed to the federal/provincial accord, the governments of Quebec and Ontario have implemented legislation which generally prohibits transfers of water outside of the basin and outside of Quebec, respectively. The IJC has commended all levels of government in Canada for these actions.¹¹

2. The United States

In the year 2000 the government of the United States amended the *Water Resources Development Act* (WRDA) so that the relevant section now reads, in part:

1962d-20. Prohibition on Great Lakes Diversions

(a) The Congress finds and declares that:

⁹ International Boundary Waters Regulations, section 2 (1).

¹⁰ *International Boundary Waters Treaty Act*, section 13 (2).

¹¹ International Joint Commission, “Protection of the Waters of the Great Lakes, Review of the Recommendations in the February 2000 Report,” August 2004.

1. The Great Lakes are the most important natural resource to the eight Great Lakes states and two Canadian provinces, providing water supply for domestic and industrial use, clean energy through hydropower production, an efficient transportation mode for moving products into and out of the Great Lakes region, and recreational uses for millions of United States and Canadian citizens;
2. the Great Lakes need to be carefully managed and protected to meet current and needs within the Great Lakes Basin and Canadian provinces;
3. *any new diversions of Great Lakes water for use outside of the Great Lakes basin will have significant economic and environmental impacts, adversely affecting the use of this resource by the Great Lakes states and Canadian provinces; and*
4. four of the Great Lakes are international waters and are defined as boundary waters in the *Boundary Water Treaty* of 1909 between the United States and Canada, and as such any new diversion of Great Lakes water in the United States would affect the relations of the Government of the United States with the Government of Canada.

(b) It is therefore declared to be the purpose and policy of the Congress in this action:

1. to take immediate action to protect the limited quantity of water available from the Great Lakes system for use by the Great Lakes States and in accordance with the *Boundary Waters Treaty* of 1909;
2. *to encourage the Great Lakes States, in consultation with the Provinces of Ontario and Quebec, to develop and implement a mechanism that provides a common conservation standard embodying the principles of water conservation and resource improvement for making decisions concerning the withdrawal and use of water from the Great Lakes Basin;*
3. *to prohibit any diversion of Great Lakes water by any State, Federal agency, or private entity for use outside the Great Lakes Basin unless such diversion is approved by the Governor of each of the Great Lakes States;*¹²

Because of part 3 of this section, which effectively gives a veto to any of the Great Lakes governors, new diversions to outside of the basin are very difficult to approve. This has led some to believe that the status quo effectively bans new diversions.

¹² Department of Environmental Quality, *Water Resources Development Act of 1986*, http://www.michigan.gov/deq/0,1607,7-135-3313_3677_3704-12588--,00.html, accessed 17 November 2004, emphasis added.

The Canadian Environmental Law Association, however, believes that:

... most experts have little confidence in *WRDA* standing up to a legal challenge as it may be contradictory to the commerce clause of the U.S. constitution. This clause makes water an article of commerce and has been evoked by the U.S. federal government to compel states to share water beyond their boundaries.¹³

Others believe that the Dormant Commerce Clause of the United States Constitution would not be violated as a result of the *WRDA*, precisely because it was amended to direct the states to develop and implement a mechanism for making decisions concerning the withdrawal and use of water from the Great Lakes Basin.¹⁴ In fact some believe that the Annex 2001 Implementing Agreements themselves, as written, would strengthen the case for those wanting water outside of the basin under the Dormant Commerce Clause.¹⁵

3. The Annex 2001 to the Great Lakes Charter

The Annex 2001 Draft Implementing Agreements pertain to the Annex 2001 of the Great Lakes Charter, which was itself signed in 1985. The Annex was also in large part a response to the NOVA Group application.

The Great Lakes Charter is a good faith agreement that attempted to respond to concerns regarding the potential for adverse effects from diversions and consumptive use of Great Lakes Basin water resources on the environment, economy, and welfare of the Great Lakes region. It also addressed the need for cooperative management to protect the water and ecosystem of the Great Lakes Basin.¹⁶

The Annex was designed to create a process toward a binding arrangement regarding withdrawals, which culminated in the release of the Draft Implementing Agreements on 19 July 2004 for a 90-day comment period. There are two parts to the Draft Implementing Agreements:

¹³ Canadian Environmental Law Association, "Statement to the Standing Committee on the Environment and Sustainable Development from the Canadian Environmental Law Association and Great Lakes United on the Great Lakes Charter Annex", 18 November 2004.

¹⁴ See Steven Shrybman, "Legal Opinion : Great Lakes Basin Sustainable Water Resources Compact and the Diversion of Great Lakes Waters," October 2004, Commissioned by The Council of Canadians, http://www.canadians.org/documents/legalop_greatlakes_14oct04.pdf accessed 17 November 2004.

¹⁵ James Olson, Great Lakes Compact — Water for Sale?" in *One issue, Two Voices*, The Woodrow Wilson International Center for Scholars, <http://www.wilsoncenter.org/events/docs/water.pdf> accessed 17 November 2004.

¹⁶ Ontario Ministry of Natural Resources, The Great Lakes Charter, http://www.mnr.gov.on.ca/mnr/water/N10121_p741.html accessed 17 November 2004

- The Great Lakes Basin Sustainable Water Resources Agreement involves all eight states and the two provinces. It is a good-faith agreement in which each province and state commits to implement by developing or modifying appropriate laws and regulations for their jurisdiction.
- The Great Lakes Basin Water Resources Compact, is a binding agreement among the eight Great Lakes states. Under certain circumstances the provinces would be consulted, but they would not be included in final decisions.

At the Agreements' core is a set of Standards that would apply to withdrawals. Essentially permits would be given for withdrawals only if the following criteria were met:

- There is no reasonable alternative to the proposed use, such as conserving existing water supplies.
- Withdrawals are limited to reasonable quantities for intended purposes.
- All water withdrawn is returned to the same Great Lake watershed, less an allowance for consumptive use.
- There are no significant adverse individual or cumulative impacts.
- There is a conservation plan (for major proposals) or measures.
- Proposals include measures to improve the physical and biological integrity of the basin (for major proposals).
- The proposal is in compliance with applicable laws and agreements (for example, Ontario's Water Taking and Transfer Regulation, and the federal *International Boundary Waters Treaty Act*).¹⁷

The criteria in the Standards would eventually apply to any withdrawal greater than 100,000 gallons per day averaged over any 120-day period, though the deadline for this to come into effect is 10 years.

For smaller withdrawals and diversions the jurisdiction of the withdrawal would review the proposal. For larger withdrawals a regional review of the proposal

¹⁷ Ontario Ministry of Natural Resources, Backgrounder, 19 July 2004
http://www.mnr.gov.on.ca/mnr/csb/news/2004/jul19fs_04.html accessed 17 November 2004.

would take place, though the jurisdiction of withdrawal would still make the final determination. Larger withdrawals are defined as follows:

- A New or Increased Diversion of 1 million gallons per day (3.8 million litres per day) or greater average in any 120-day period;
- A New or Increased Consumptive Use of 5 million gallons per day (19 million litres per day) or greater average in any 120-day period, or
- A New or Increased Diversion and a Consumptive Use where the total combined Diversion and Consumptive Use is 5 million gallons (19 million litres per day) per day or greater average in any 120-day period.

From the standpoint of the Committee the essential question is whether or not the Standards and the thresholds for triggering them provide sufficiently tight control over licensing withdrawals to protect the ecological integrity of the waters of the Great Lakes. The Committee heard from no witnesses that felt that the Agreements in their current form offer sufficient protection to the Great Lakes Basin.

While some felt that the Annex 2001 process was generally good and would likely yield a final result that provides better protection than the status quo, others felt that the Draft Agreements were fundamentally flawed and would lead to a “slippery slope” of withdrawals that would threaten the integrity of the Great Lakes Basin.

It is the Committee’s belief that the two opinions are not so far apart as to be inconsistent. The Draft Annex 2001 Agreements must certainly be improved upon and the testimony regarding improvements should be reflected in the government of Canada’s response to the Council of Great Lakes Governors (CGLG).

THE GOVERNMENT OF CANADA’S RESPONSE

Responding to the Council of Great Lakes Governors

When the CGLG released Annex 2001 on 14 December 2001, the Canadian government responded relatively quickly and in fairly strong terms. In a letter dated 28 February 2002, the government outlined three serious concerns that it had regarding the Annex:

- The standard proposed is too permissive, and could compromise the ecological integrity of the Great Lakes Basin by the

cumulative impacts of diversions below the *de minimis* threshold, as well as by opening the door to long-distance, large-scale removals out of the basin.

- There are a number of unanswered legal and jurisdictional questions, not the least of which is the possibility of conflict between the Annex and the *Boundary Waters Treaty*, thereby diminishing the importance of the protections the latter offers to the Great Lakes.
- There should be greater clarity on a number of important aspects related to implementation, as these would have a significant impact on how the Annex is applied.¹⁸

Given the serious concerns that the Canadian government voiced at the time that the Annex was first released, the Committee believes that the government should have taken a more active and advisory role in the development of the Implementing Agreements through close discussions with the provinces. It is also troubled that the Government of Canada has yet to comment on the Draft Implementing Agreements. Nonetheless, it is also pleased to note that testimony from government officials suggested openness to hearing the parliamentary perspective that this Committee can provide to the response through this study.¹⁹

1. Thresholds

It is clear from the testimony and analysis provided to the Committee that the thresholds for application of the Standard to withdrawals are too permissive.

The U.S. *WRDA* states that any new diversion will have “significant economic and environmental impacts, adversely affecting the use of this resource by the Great Lakes states and Canadian provinces.”

The Canadian position reflects more the wording of the *BWT* in that any withdrawal is deemed to “affect the natural level or flow of the boundary waters on the other side of the international boundary.” In any event, it sets a threshold of 50,000 litres per day with no apparent averaging as a requirement for a permit to withdraw.

¹⁸ Comments from the Government of Canada on Annex 2001 to the Council of Great Lakes Governors, 28 February 2001.

¹⁹ Karen Brown, *Evidence*, 28 October 2004.

In addition, the IJC recommended that the states and provinces not permit any removal unless it could be demonstrated that the removal did not endanger the ecological integrity of the Basin.²⁰

The Implementing Agreement Standards on the other hand set a limit of 100,000 gallons (378,500 litres) before the standards are triggered and this must be the average over a 120-day period. As the Canadian Environmental Law Association and Great Lakes United pointed out, the Great Lakes Charter, under which the Annex operates, sets criteria based on withdrawals averaged over a 30-day period.

Clearly the thresholds for triggering the Standards are higher than any of those in Canadian law, the Great Lakes Charter itself, and in the IJC's recommendations. The Committee therefore concludes that the thresholds must be made more stringent.

2. Return of Flow Requirements

One of the requirements for approval of a proposal under the Standards (should the proposal meet the thresholds) is for the water to be returned to the Basin.

All Water Withdrawn from the Great Lakes Basin shall be returned to the Great Lakes Basin less an allowance for Consumptive Use of the applicable water use sector. Water Withdrawn directly from a Great Lake or from the St. Lawrence River shall be returned to the watershed of that Great Lake or the watershed of the St. Lawrence River, respectively. Water Withdrawn from a watershed of a stream that is a direct tributary to a Great Lake or a direct tributary to the St. Lawrence River shall be returned to the watershed of that Great Lake or the watershed of the St. Lawrence River, respectively, with a preference to the direct tributary stream watershed from which it was Withdrawn.²¹

There are exemptions, however, for diversions which are for public water uses no further than 12 miles (19.3 km) from the basin or that are less than 250,000 gallons (946,000 litres) per day averaged over a 120-day period.

The IJC, in its year 2000 recommendations, set a standard of "no net loss to the area from which the water is taken." The proposed Standard leaves open the question of how much "an allowance for Consumptive Use" could be and offers a set of exemptions. The IJC clearly recommended a maximum loss of 5%, though

²⁰ International Joint Commission, International Joint Commission, "Protection of the Waters of the Great Lakes, Final Report to the Governments of Canada and the United States," 22 February 2000.

²¹ The Great Lakes Basin Sustainable Water Resources Agreement, and the Great Lakes Basin Water Resources Compact.

the Committee feels quite strongly that even this is too high. As the Committee learned,²² the Canadian government rather reluctantly agreed to support the IJC 5% proposal stating in its response to the 2000 report:

Recognizing the inter-jurisdictional nature of this recommendation, and while not as strict as Canada's approach, the Government of Canada supports this recommendation as it takes account of the concerns of all governments in the Great Lakes Basin, and affords protection to the integrity of the Basin, while effectively preventing any large-scale or long-distance removals of water.

The Committee heard compelling evidence that the "no-net loss" to the area requirement would be a far better standard to judge proposals than leaving an open-ended allowance to anywhere in the watershed of the lake from which the water was taken.²³ It is also of the strong opinion that the recommendation of the IJC for a maximum 5% loss should set a minimum level to be met in the return flow requirement of the Standard, and feels that in most cases return flow should be significantly more than this. The Committee was also pleased that the Ontario government now clearly wants a "no diversions" agreement, or the position of "no net loss".²⁴

3. Quality of Return Flow

The quality of the water returned to the Basin is not mentioned in the Standard. The Proposal Review Guidance section of the International Agreement, however, does state that a requirement would be that "The Return Flow meets all applicable water quality Standards." The Committee heard in testimony and strongly believes that at the very least there should be explicit mention in the Standard of return water meeting the guidelines for water quality set under the Great Lakes Water Quality Agreement.²⁵

The IJC recommended that measures also be put into place to prevent the introduction of invasive alien species. These species are a significant and growing problem within the Basin, indeed throughout North America. Nowhere in the Agreements are invasive alien species mentioned. The Committee believes that this is a serious oversight that must be rectified, particularly since they involve diversions.

²² Ralph Pentland, *Evidence*, 16 November 2004.

²³ James Bruce, *Evidence*, 16 November 2004.

²⁴ Ontario Ministry of Natural Resources, Press Release "Level of Protection in Draft Great Lakes Charter Annex Agreements Not High Enough *Changes Needed Before Ontario Will Sign*," 15 November 2004 http://www.mnr.gov.on.ca/MNR/csb/news/2004/nov15nr_04.html accessed 23 November 2004.

²⁵ James Bruce, *Evidence*, 16 November 2004.

4. Resource Improvement vs. Ecological Integrity

The *WRDA* encourages the Great Lakes states to develop a “conservation standard embodying the principles of water conservation and resource improvement for making decisions concerning the withdrawal and use of water.” This is perhaps why the Standard relies on the concept of resource improvement.

The Committee, however, heard evidence that to apply a resource improvement standard could well put a price on water that would effectively put the water of the Great Lakes up for sale.²⁶ This would occur because removals of water in one area could be essentially bartered for unrelated “improvements” somewhere else. While the Committee is not convinced that this will be the case, there are other problems with the concept of “resource improvement” that suggest it should be approached with care.

“Resource improvement” is defined under the Annex to the Great Lakes Charter as:

Improvement to the Waters and Water-Dependent Natural Resources of the Great Lakes Basin means additional beneficial, restorative effects to the physical, chemical, and biological integrity of the Waters and Water-Dependent Natural Resources of the Basin, resulting from associated conservation measures, enhancement or restoration measures which include, but are not limited to, such practices as mitigating adverse effects of existing water withdrawals, restoring environmentally sensitive areas or implementing conservation measures in areas or facilities that are not part of the specific proposal undertaken by or on behalf of the withdrawer.

The Implementing Agreements add the words “Environmentally Sound and Economically Feasible Water” in front of the word “conservation” both times it is used in the definition of the Charter.

The International Agreement further refers to a document produced by a consulting agency that lists examples of improvement under the headings “Hydrologic Conditions”, “Water Quality” and “Habitat.” The Committee is concerned that water removals may have an impact on one of these aspects of integrity, in one place, while the improvement in the proposal may be for a different aspect in a different geographical area. The improvement aspects of the Agreements therefore leave open the possibility of trading off unrelated aspects of integrity in geographically distinct areas.

The IJC based its approval criteria solidly on the grounds of maintaining the ecological integrity of the Great Lakes stating that the various aspects of the Great

²⁶ Ralph Pentland, *Evidence*, 16 November 2004; Elizabeth May, *Sierra Club Brief*, 18 November 2004.

Lakes should be treated as a “unified whole”. The Committee acknowledges that the concept of “ecological integrity” is very complex²⁷ and difficult to measure, but it also recognizes that the Great Lakes must be treated carefully and in a holistic manner. It is possible that a coordinated set of “resource improvements” could lead to ecological integrity. Without specific directions stating this clearly in the Agreements, however, the Committee is very concerned that piecemeal and unrelated improvements could lead to a deterioration of the overall integrity of the Lakes.

5. Uncertainty

A recurring theme of the testimony before the Committee was the lack of certainty regarding our knowledge of the Great Lakes waters. In particular there was concern about a lack of knowledge regarding:

- the quantity, quality and movement of the Basin’s groundwater,
- how to measure cumulative effects, and,
- the possible overriding effects of climate change on levels and flows.

The Committee is very concerned to learn that in the absence of such knowledge to back up decision making, serious damage has occurred, for instance, to groundwater resources in the United States.

Given these significant gaps in our knowledge, and given the high stakes involved, it was suggested by witnesses that a guiding principle of the Agreements

²⁷ See for instance: J. Kay and H. Regier, “Uncertainty, Complexity, and Ecological Integrity: Insights from an Ecosystem Approach,” in P. Crabbé, et. al (eds), *Implementing Ecological Integrity: Restoring Regional and Global Environmental and Human Health*, 2000 Kluwer, NATO Science Series, Environmental Security, p. 121-156.

“In essence ecological integrity is about the integrity of the self-organization of ecological systems. The very nature of these self-organizing phenomena, and by implication any discussion of ecological integrity, is such that they are characterized by emergency, surprise, inherent uncertainty and limited predictability”

Also: H. Regier, 1993, “The notion of natural and cultural integrity”, in Woodley, S., Kay, J., and Francis, G., eds., *Ecological integrity and the management of ecosystems*: 1993 Delray Beach, Fla., St. Lucie Press, p. 3-18.

“A living system exhibits integrity if, when subjected to disturbance, it sustains an organizing, self-correcting capability to recover toward an end-state that is normal and “good” for that system. End-states other than the pristine or naturally whole may be taken to be normal and “good.”

Parks Canada defines ecological integrity as (with respect to a park):

“... a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes.”

should be the Precautionary Principle.²⁸ The Committee concurs in this conclusion and suggests that the definition of the Precautionary Principle be that of the Rio Declaration:

Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Recommendation 1

The Committee therefore recommends that, in its response to the Council of Great Lakes Governors, the Canadian government urge the Governors and the Premiers to base the criteria in the Standard on the Precautionary Principle.

6. The Interaction with the *Boundary Waters Treaty*

Many other weaknesses of the Agreements were brought to light during testimony. The one that was repeated many times, however, was the potential for the Agreements to conflict with the jurisdiction of the IJC, as outlined in the *BWT*.

As mentioned previously, various aspects of the Agreements are apparently inconsistent with:

- Canada's interpretation of the removals influencing flows and levels;
- various recommendations of the IJC; and
- the *WRDA*'s interpretation of any removals adversely affecting the use of the resource.

The Minister of Foreign Affairs, however, has stated emphatically in the House of Commons:

Mr. Speaker, the proposed Annex does not affect Canadian and U.S. obligations under the *Boundary Waters Treaty*. It does not affect levels and flows of the Great Lakes.²⁹

The Committee is not reassured by this conclusion because there does not seem to be any basis for this claim and it seems to contradict Canada's

²⁸ Elizabeth May, Sierra Club of Canada, Brief, 18 November 2004.

²⁹ Hon. Pierre Pettigrew, *House of Commons Debates*, 21 October 2004.

interpretation of flows and levels in the *IBWTA*, particularly ignoring the possibility of cumulative impacts of smaller withdrawals.

The International Agreement does have a clause that attempts to rectify the apparent conflict:

Nothing in this Agreement is intended to provide nor shall be construed to provide, directly or indirectly, to any person any right, claim or remedy under any international Agreement or treaty.³⁰

The Compact, however, does not include this language, relying only on the Standard's statement that the proposal will be in accordance with laws.

It is important to note, however, that the U.S. State Department has asked that a non-derogation clause be added to the Compact clearly stating the supremacy of the *BWT*. The Committee is somewhat reassured by this and believes that, notwithstanding the remarks of the Minister of Foreign Affairs, the Canadian government should reinforce this request with one of its own.

Recommendation 2

The Committee therefore recommends that, in its response to the Council of Great Lakes Governors, the Canadian government urge the governors and the premiers to include specific language in the Agreements stating clearly that in the final analysis of proposals for water removal, the *Boundary Waters Treaty* will prevail and that the IJC must remain the final arbiter of decisions regarding such proposals.

The Committee, however, remains concerned over the potential for conflict if the wording of the Agreements is not significantly changed. The problem is that there is little recourse to the Canadian government should the governors decide that a withdrawal meets their criteria under the Compact even though the IJC recommendations have been ignored and there is a potential for conflict with the *BWT*. Such a potential could only be resolved in courts based on the application of international law between Canada and the United States,³¹ with a very unsure outcome.

The IJC has yet to come to a conclusion itself as to whether or not the Implementing Agreements follow its 2000 recommendations, as it is waiting for the final versions to come to a conclusion.

³⁰ The Great Lakes Basin Sustainable Water Resources Agreement, Article 702.

³¹ Michael Vechsler, Legal Adviser to the Canadian Section of the IJC, *Evidence*, 2 November 2004.

Finally, the Commission recommends that the outcome of the Annex 2001 process should include a standard and management regime consistent with the recommendations in our 2000 report. Until this process is complete, it is not possible to say whether and to what extent Annex 2001 and measures taken under it will give effect to the recommendations in the Commission's 2000 Report.³²

While the IJC's recommendations fall short of the action taken in Canada regarding withdrawals, the Canadian government has accepted most of their recommendations. It is a respected body with years of experience behind it. To avoid conflict with the IJC, the Committee believes that the Agreements must meet the recommendations of the IJC.

Recommendation 3

The Committee therefore recommends in the strongest of terms that, in its response to the Council of Great Lakes Governors, the Canadian government urge the governors and the premiers to revise and strengthen the Agreements. In so doing the Agreements should adopt the language and the intent of the recommendations of the IJC as outlined in their year 2000 report on the Protection of the Waters of the Great Lakes as minimum requirements for the approval of projects to remove water from the Great Lakes Basin, as the IJC has recommended.

As has been stated, the full acceptance and implementation of these agreements is some years away. The question therefore arises as to how to manage withdrawals in the meantime. In a similar situation to this, the IJC released an interim report before its final version in 2000 and in it stated:

Recommendation I. Pending submission of its final report under the Reference, the Commission recommends that the federal, state, and provincial governments should not authorize or permit any new bulk sales or removals of surface water or groundwater from the Great Lakes Basin and should continue to exercise caution with regard to consumptive use of these waters, in accordance with existing laws in both countries and with the Great Lakes Charter.³³

Since the IJC has yet to determine whether or not the Agreements meet their recommendations of the year 2000, and in following the precedent of the IJC's interim recommendation in 1999, the Committee believes that until such

³² International Joint Commission, "Protection of the Waters of the Great Lakes, Review of the Recommendations in the February 2000 Report," August 2004, <http://www.ijc.org/php/publications/pdf/ID1560.pdf>.

³³ IJC, "Protection of the Waters of the Great Lakes," Interim Report to the Governments of Canada and the United States, 10 August 1999.

Agreements are finalized and there is reasonable scientific evidence that their implementation will not cause harm to the ecological integrity of the Great lakes Basin, a moratorium should be put in place on approval of new or revised withdrawals.

Recommendation 4

The Committee recommends that, until the IJC is satisfied that the Agreements meet their recommendations and that their implementation will not cause harm to the ecological integrity of the Great Lakes Basin, Foreign Affairs Canada adopt the position of placing a moratorium on any new bulk sales or removals of surface water or groundwater from the Great Lakes Basin, and that the Government of Canada recommend this position in its response to the Council of Great Lakes Governors.

FURTHER RESPONSE OF THE CANADIAN GOVERNMENT

Return Flow

As the Committee learned,³⁴ the Canadian government rather reluctantly agreed to support the IJC proposal that return flow should be a minimum of 95%, stating in its response to the 2000 report:

Recognizing the inter-jurisdictional nature of this recommendation, and while not as strict as Canada's approach, the Government of Canada supports this recommendation as it takes account of the concerns of all governments in the Great Lakes Basin, and affords protection to the integrity of the Basin, while effectively preventing any large-scale or long-distance removals of water.

The Committee is very concerned that the maximum amount to be used in a diversion or use is set at 5%. In particular it is concerned that the 5%, instead of being a maximum, will become a benchmark to rate return flows. The Agreements have an open ended allowance for use, and the Committee believes that if that is set at 5%, there is a potential for cumulative harm.

Recommendation 5

The Committee therefore recommends that the Canadian government remove its support for the 5% maximum use threshold which it considers to be too high and urge the IJC to revisit this provision of its year 2000 recommendations.

³⁴ Ralph Pentland, *Evidence*, 16 November 2004.

Decreasing Uncertainty

The Committee believes that a more robust set of scientific data would greatly increase confidence that criteria to be met by proposals would make it more likely that withdrawals would have no significant adverse effect on the ecological integrity of the Great Lakes Basin.

The federal government's capacity in freshwater research has been greatly reduced over the last two decades and it is time to significantly reverse this trend. The issue of freshwater security is paramount to Canadians, and the current government effort to reallocate dollars to priority areas offers a perfect opportunity to rectify the situation.

While the Committee concurs with one witness that Canadian freshwater science is better than most in the world, it is also sure that this is not sufficient and that a more central hand in this research would help increase coordination and data compatibility among the jurisdictions collecting data. With greater investments Canada could not only become the world leader and position itself to export this expertise, it could also help resolve significant issues surrounding its own freshwater management.

Recommendation 6

The Committee recommends that the Canadian government, with the Department of the Environment as lead agency, carry out an interdepartmental analysis of its scientific capacity in freshwater research as well as federal water policy and that it report back to the Committee the results of this analysis. Subsequent to this, the Committee recommends that, in its efforts to reallocate money between and within departments to priority areas, the government apportion, in a coordinated manner, significantly increased resources to freshwater research.

Unleashing the International Joint Commission

The IJC is a respected organization with a long track record of resolving disputes and advising governments. Part of the reason for this track record, however, is that only joint referrals have ever been made.

As stated above, this is apparently because its recommendations under Article IX are not binding, and, according to the chair of the Canadian section, this means that recommendations made by the IJC from a unilateral referral would not carry as much weight. It also means that many referrals that the IJC would like to be

given, such as invasive species and flows and levels in the upper lakes, have yet to be approved.

In effect this means that the reliance on joint referrals has leashed the IJC. The IJC has a large store of credibility, which the Committee believes would hold considerable weight even with a single country reference. Canada should consider using its right of unilateral referral in the case of important scientific research and, more importantly, if the implementation of Annex 2001 is found to be at odds with the IJC's recommendations.

The importance of Annex 2001 to the ecological integrity of the Great Lakes and its potential to conflict with a long-standing treaty, is such that all options with the IJC must be examined. This includes the option of attempting to invoke Article X, if the final Agreements and their implementation are clearly at odds with the IJC's recommendations.

Referrals under this Article must be pre-approved by the United States Senate and by the Canadian cabinet. This clearly makes invocation difficult. The United States government, however, has shown some discomfort with the Draft Implementing Agreements by recommending the non-derogation clause. Michigan too has shown that it has difficulties with the agreements. Should the Canadian government find the implementation of Annex 2001 to be in clear contradiction to the Treaty, it should consider opening diplomatic efforts toward invoking Article X.

The power of the IJC has also been limited by information and financial restriction created by the Canadian government. The Commissioner of the Environment and Sustainable Development, in her year 2001 report, cited many examples of how the Canadian government's actions have limited the effectiveness of the IJC. The Commissioner's recommendations included:

8.35 Our findings show that the federal government needs to provide better and more timely information to the International Joint Commission, follow up on its recommendations, and ensure that resources are adequate.

The Committee believes that the power of the IJC could be increased by giving serious consideration to using all of the referral powers under the Treaty and by more fully supporting the IJC with timely information and resources. The Canadian government must make it absolutely clear that the IJC must remain the final arbiter for cases of withdrawals affecting levels and flows, but this can only be realized if it is provided with the proper resources and if it is backed up by the political will of government.

Recommendation 7

The Committee recommends that the Canadian government more fully explore its referral options under the *Boundary Waters Treaty* and that it support the IJC by supplying it with more timely information, better following up on its recommendations, and ensuring that its resources are adequate.

Better Coordination with Provinces

As stated previously, the *BWT* is an “empire treaty”, and as such the federal government has the authority to implement it. The Committee recognizes, however, that the provinces of the Great Lakes Basin have a powerful interest in maintaining the ecological integrity of the waters of the Great Lakes and, as it learned, the provinces have gained a great deal of capacity to manage these waters effectively. The provinces should therefore have a significant role to play in implementing the *BWT*.

One witness, however, suggested that perhaps the devolution of implementing powers to the provinces had gone too far.

There's a broader question here about the roles of the provinces, the federal government, states, and so on in water matters. When I first started working in the federal government some 40 years ago, they did almost everything on boundary waters. Over the years, the provinces and states gradually gained more and more capability. We found that in many cases it was better to let the provinces and states work out their little disputes all by themselves, because there were hundreds of these things and they were able to do it. Over time they got better and better at it. It may be that over the four decades or so we've gone too far.³⁵

Others felt quite strongly that, since the Annex involves boundary waters, the federal government should be more involved.³⁶

The Committee also heard testimony that on the one hand seemed to suggest that the federal government was out of the loop during negotiations and on the other that it was being kept well informed.³⁷

The Committee is of the opinion that (if indeed it was not) the federal government should have at least been kept abreast of the details of the negotiations. The serious reservations that the government expressed regarding the

³⁵ Ralph Pentland, *Evidence*, 16 November, 2004.

³⁶ Elizabeth May, *Evidence*, 18 November, 2004.

³⁷ Karen Brown and Peter Fawcett, *Evidence*, 28 October 2004.

Annex 2001 should have been followed up by the government taking a more active and advisory role in the development of the Implementing Agreements through close discussions with the provinces.

The Committee heard testimony of the existence of formal federal/state working groups in the U.S. which attempt to act in a proactive and visionary fashion on issues.³⁸ These should be examined as a potential model for Canada. Some form of better communication and coordination must be established between the federal government and the provinces, particularly when the issue at hand is clearly under one or the other's jurisdiction and both have policies with similar goals.

CONCLUSION: THE BIG PICTURE

The Draft Implementing Agreements are a work in progress. There seems little doubt that the Agreements as written will be modified, since the Government of Ontario has already rejected the Draft International Agreement and the U.S. State Department as well as the Attorney General of Michigan have both stated clear reservations.

During the next phase of negotiations, it is hoped that the concepts and recommendations of this report specific to the Agreements will be seriously considered along with the many other comments submitted to the CGLG. Apparently, around the negotiating table, there is a will to take into account the recommendations of the IJC.³⁹ This acceptance of the IJC recommendations must be considered a minimum requirement in order to avoid a conflict between the Standards process and the role of the IJC.

It is also hoped that the federal government will take heed of the recommendations regarding other federal actions. Some of these will require more funding, but water security is without a doubt the most important environmental issue on the minds of Canadians, and it should be for the government as well.

The implications of these Agreements could be far reaching. Local issues are often a reflection of those being felt at much larger scales. In Canada's case, as a result of NAFTA, we are increasingly being drawn into discussions involving the entire continent, whether regarding energy policy or environmental management.

³⁸ Sarah Miller, *Evidence*, 18 November, 2004.

³⁹ *Ibid.*

In this context, the management of the Great Lakes is essential, not just to Canada, but to all of North America. The Annex Agreements are a very important part of this management, and the time must be taken to get them right. The tragedies of water mismanagement around the globe are all too evident, and they must not be repeated here.

LIST OF RECOMMENDATIONS

Recommendation 1

The Committee therefore recommends that, in its response to the Council of Great Lakes Governors, the Canadian government urge the Governors and the Premiers to base the criteria in the Standard on the Precautionary Principle.

Recommendation 2

The Committee therefore recommends that, in its response to the Council of Great Lakes Governors, the Canadian government urge the governors and the premiers to include specific language in the Agreements stating clearly that in the final analysis of proposals for water removal, the *Boundary Waters Treaty* will prevail and that the IJC must remain the final arbiter of decisions regarding such proposals.

Recommendation 3

The Committee therefore recommends in the strongest of terms that, in its response to the Council of Great Lakes Governors, the Canadian government urge the governors and the premiers to revise and strengthen the Agreements. In so doing the Agreements should adopt the language and the intent of the recommendations of the IJC as outlined in their year 2000 report on the Protection of the Waters of the Great Lakes as minimum requirements for the approval of projects to remove water from the Great Lakes Basin, as the IJC has recommended.

Recommendation 4

The Committee recommends that, until the IJC is satisfied that the Agreements meet their recommendations and that their implementation will not cause harm to the ecological integrity of the Great Lakes Basin, Foreign Affairs Canada adopt the position of placing a moratorium on any new bulk sales or removals of surface water or groundwater from the Great Lakes Basin, and that the Government of Canada recommend this position in its response to the Council of Great Lakes Governors.

Recommendation 5

The Committee therefore recommends that the Canadian government remove its support for the 5% maximum use threshold which it considers to be too high and urge the IJC to revisit this provision of its year 2000 recommendations.

Recommendation 6

The Committee recommends that the Canadian government, with the Department of the Environment as lead agency, carry out an interdepartmental analysis of its scientific capacity in freshwater research as well as federal water policy and that it report back to the Committee the results of this analysis. Subsequent to this, the Committee recommends that, in its efforts to reallocate money between and within departments to priority areas, the government apportion, in a coordinated manner, significantly increased resources to freshwater research.

Recommendation 7

The Committee recommends that the Canadian government more fully explore its referral options under the *Boundary Waters Treaty* and that it support the IJC by supplying it with more timely information, better following up on its recommendations, and ensuring that its resources are adequate.

Appendix A

Year 2000 Recommendations of the International Joint Commission

Recommendation I. Removals

Without prejudice to the authority of the federal governments of the United States and Canada, the governments of the Great Lakes states and Ontario and Quebec should not permit any proposal for removal of water from the Great Lakes Basin to proceed unless the proponent can demonstrate that the removal would not endanger the integrity of the ecosystem of the Great Lakes Basin and that:

- a. there are no practical alternatives for obtaining the water,
- b. full consideration has been given to the potential cumulative impacts of the proposed removal, taking into account the possibility of similar proposals in the foreseeable future,
- c. effective conservation practices will be implemented in the place to which the water would be sent,
- d. sound planning practices will be applied with respect to the proposed removal, and,
- e. there is no net loss to the area from which the water is taken and, in any event, there is no greater than a 5 percent loss (the average loss of all consumptive uses within the Great Lakes Basin); and the water is returned in a condition that, using the best available technology, protects the quality of and prevents the introduction of alien invasive species into the waters of the Great Lakes.

In reviewing proposals for removals of water from the Great Lakes to near-Basin communities, consideration should be given to the possible interrelationships between aquifers and ecosystems in the requesting communities and aquifers and ecosystems in the Great Lakes Basin.

In implementing this recommendation, states and provinces shall ensure that the quality of all water returned meets the objectives of the Great Lakes Water Quality Agreement.

At this time, removal from the Basin of water that is used for ballast or that is in containers of 20 liters or less should be considered, *prima facie*, not to endanger

the integrity of the ecosystem of the Great Lakes. However, caution should be taken to properly assess the possible significant local impacts of removals in containers.

Removal of water for short-term humanitarian purposes should be exempt from the above restrictions.

The governments of Canada and the United States and the governments of the Great Lakes states and Ontario and Quebec should notify each other of any proposals for the removal of water from the Great Lakes Basin, except for removal of water that is used for ballast or that is in containers of 20 liters or less.

Consultations regarding proposed removals should continue in accordance with the procedures and processes that are evolving throughout the Great Lakes Basin and should be coupled with additional opportunities for public involvement.

Any transboundary disagreements concerning any of the above matters that the affected governments are not able to resolve may, as appropriate, be referred by the governments of Canada or the United States to the International Joint Commission pursuant to Article IX of the *Boundary Waters Treaty*.

Nothing in this recommendation alters rights or obligations under the *Boundary Waters Treaty*.

Recommendation II. Major New or Increased Consumptive Uses

To avoid endangering the integrity of the ecosystem of the Great Lakes Basin, and without prejudice to the authority of the federal governments of the United States and Canada, the governments of the Great Lakes states and Ontario and Quebec should not permit any proposal for major new or increased consumptive use of water from the Great Lakes Basin to proceed unless:

- a. full consideration has been given to the potential cumulative impacts of the proposed new or increased major consumptive use, taking into account the possibility of similar proposals in the foreseeable future,
- b. effective conservation practices will be implemented in the requesting area, and,
- c. sound planning practices will be applied with respect to the proposed consumptive use.

In implementing this recommendation, states and provinces shall ensure that the quality of all water returned meets the objectives of the Great Lakes Water Quality Agreement.

The governments of Canada and the United States and the governments of the Great Lakes states and Ontario and Quebec should notify each other of any proposals for major new or increased consumptive uses of water from the Great Lakes Basin.

Consultations regarding proposed major new or increased consumptive uses should continue in accordance with the procedures and processes that are evolving throughout the Great Lakes Basin and should be coupled with additional opportunities for public involvement.

Any transboundary disagreements concerning the above that the affected governments are not able to resolve may, as appropriate, be referred by the governments of Canada or the United States to the International Joint Commission pursuant to Article IX of the *Boundary Waters Treaty*.

Nothing in this recommendation alters rights or obligations under the *Boundary Waters Treaty*.

Recommendation III. Conservation

In order to avoid endangering the integrity of the ecosystem of the Great Lakes Basin, the governments of the Great Lakes states and Ontario and Quebec should apply conservation measures to significantly improve efficiencies in the use of water in the Great Lakes Basin and should implement the conservation measures set out in this recommendation.

The governments of the Great Lakes states and Ontario and Quebec, in collaboration with local authorities, should develop and launch a coordinated basin-wide water conservation initiative, with quantified consumption reduction targets, specific target dates, and monitoring of the achievement of targets, to protect the integrity of the Great Lakes Basin ecosystem, and to take advantage of the other economic and environmental benefits that normally flow from such measures.

In developing and implementing this initiative, the governments should, among other things, consider:

- a. state-of-the-art conservation and pollution-control technologies and practices,

- b. potential cumulative impacts,
- c. the application of sound planning practices,
- d. to the extent practicable, the setting of water prices at a level that will encourage conservation,
- e. conditioning financial help from governments for water and wastewater infrastructure on the application of sound conservation practices,
- f. promotion of eco-efficient practices, especially in the industrial and agricultural sectors,
- g. establishment of effective leak detection and repair programs for water infrastructure in all municipalities,
- h. the inclusion of strong performance and environmental standards and financial incentives for water saving in contractual arrangements for delivery of water-related services, whether public or private,
- i. the application of best practicable water-saving technologies in governmental facilities,
- j. sharing experiences with respect to the planning and implementation of conservation policies and programs and the use of water-saving technologies, and,
- k. joint preparation of promotional and educational materials and publication of success stories, including sponsoring conferences and workshops on water conservation, in partnership with others

Recommendation IV. Great Lakes Charter Standards

Without prejudice to the authority of the federal governments of the United States and Canada, the Great Lakes States and Ontario and Quebec, in carrying out their responsibilities under the Great Lakes Charter, should develop, within 24 months, with full public involvement and in an open process, the standards and the procedures, including the standards and the procedures in Recommendations I and II, that would be used to make decisions concerning removals or major new or increased consumptive uses. Federal, state, and provincial governments should not authorize or permit any new removals and should exercise caution with respect to major new or increased consumptive use until such standards have been promulgated or until 24 months have passed, whichever comes first.

Recommendation V. Existing Institutions and Mechanisms

To help ensure the effective, cooperative, and timely implementation of programs for the sustainable use of the water resources of the Great Lakes Basin, governments should use and build on existing institutions to implement the recommendations of this report. In this regard, the governments of the states and the provinces should take action, with respect to the implementation of the Great Lakes Charter, to:

- a. develop and implement, on an urgent basis, the Basin Water Resources Management Program,
- b. develop a broader range of consultation procedures than is currently called for in the Charter to assure that significant effects of proposed uses of water resources in the Great Lakes Basin are assessed, and,
- c. ensure that the notice and consultation process under the Charter is open and transparent and that there is adequate consultation with the public.

Recommendation VI. Data and Research

Federal, state, and provincial governments should move quickly to remedy water use data deficiencies by:

- a. allocating sufficient staff and financial resources to upgrade the timeliness, precision, and accuracy of water use data,
- b. working much closer together to ensure consistency in water use monitoring, estimation techniques, and reporting,
- c. emphasizing and supporting the development and maintenance of a common base of data and information regarding the use and management of the water resources of the Great Lakes Basin, establishing systematic arrangements for the exchange of water data and information, and undertaking coordinated research efforts to provide improved information for future water planning and management decisions.

Furthermore, governments should immediately take steps to ensure that, on a binational basis, research is coordinated on individual and cumulative impacts of water withdrawals on the integrity of the Great Lakes Basin ecosystem. In support of their decision-making, governments should implement long-term monitoring programs capable of detecting threats (including cumulative threats) to ecosystem

integrity. Such monitoring programs should be comprehensive, particularly in their approaches to detecting threats to ecosystem integrity at a spectrum of space and time scales.

As part of an anticipatory policy for identifying emerging issues, governments should, on a binational basis, undertake more active science and research and, in particular, should implement appropriate long-term monitoring programs for key indicators of ecosystem change.

Recommendation VII. Groundwater

Governments should immediately take steps to enhance groundwater research in order to better understand the role of groundwater in the Great Lakes Basin. In particular, they should conduct research related to:

- a. unified, consistent mapping of boundary and transboundary hydrogeological units,
- b. a comprehensive description of the role of groundwater in supporting ecological systems,
- c. improved estimates that reliably reflect the true level and extent of consumptive use,
- d. simplified methods of identifying large groundwater withdrawals near boundaries of hydrologic basins,
- e. effects of land-use changes and population growth on groundwater availability and quality,
- f. groundwater discharge to surface water streams and to the Great Lakes, and systematic estimation of natural recharge areas, and,
- g. systematic monitoring and tracking of the use of water-taking permits, especially for bottled water operations.

In recognition of the frequent and pervasive interaction between groundwater and surface water and the virtual impossibility of distinguishing between them in some instances, governments should apply the precautionary principle with respect to removals and consumptive use of groundwater in the Basin.

Recommendation VIII. Climate Change

Recognizing that the Intergovernmental Panel on Climate Change has concluded that human activities are having a discernible effect on global climate, and despite the uncertainties associated with the modeling of future climate, the governments of Canada and the United States should fully implement their international commitments to reduce greenhouse gas emissions.

Recommendation IX. Trade Law

The governments of the United States and Canada should direct more effort to allaying the public's concern that international trade law obligations could prevent Canada and the United States from taking measures to protect waters in the boundary region, and they also need to direct more effort to bringing greater clarity and consensus to the issue.

Recommendation X. Standing Reference

The Commission should be given a standing reference to review its recommendations for the protection of the waters of the Great Lakes in three years and thereafter at 10-year intervals unless conditions dictate a more frequent review.

Recommendation XI. Next Steps

The Commission recommends that the governments consider for adoption the proposed plan of work for Commission activities on the rest of the border, focusing on priority issues and on specific regional issues where the Commission can contribute binational experience and resources.

Recommendation XII. Implementation

The Commission recommends that the governments of the United States and Canada and the governments of the Great Lakes states and Ontario and Quebec, acting individually or collectively, as appropriate, take the necessary steps to implement the recommendations contained in this report.

APPENDIX B LIST OF WITNESSES

Associations and Individuals	Date	Meeting
Department of the Environment Karen Brown, Assistant Deputy Minister, Environmental Conservation Service Jennifer Moore, Director General, Water Policy and Coordination Directorate, Environmental Conservation Service	28/10/2004	3
Department of Foreign Affairs William Crosbie, Director General, North American Bureau Peter Fawcett, Deputy Director, U.S. Relations Division		
International Joint Commission Murray Clamen, Secretary, Canadian Section Herb Gray, Chairman, Canadian Section Michael Vechsler, Legal Adviser	02/11/2004	4
As an Individual James Bruce Ralph Pentland	16/11/2004	6
Canadian Environmental Law Association Sarah Miller, Coordinator/Researcher	18/11/2004	7
Council of Canadians Sara Ehrhardt, National Water Campaigner Steven Shrybman, Legal Counsel		
Great Lakes United Derek Stack, Executive Director		
Sierra Club of Canada Elizabeth May, Executive Director		

APPENDIX C LIST OF BRIEFS

Bruce, James P.

Canadian Environmental Law Association

Council of Canadians

Department of Foreign Affairs

Department of the Environment

Ducks Unlimited Canada

Great Lakes United

International Joint Commission

Pentland, Ralph

Sierra Club of Canada

Sierra Legal Defence Fund

University of Toronto, Munk Centre for International Studies

REQUEST FOR GOVERNMENT RESPONSE

In accordance with Standing Order 109, the Committee requests that the government provide a comprehensive response to the report within 150 days.

A copy of the relevant Minutes of Proceedings of the Standing Committee on Environment and Sustainable Development (*Meeting Nos. 3, 4, 6, 7 and 9 which includes this report*) is tabled.

Respectfully submitted,

Alan Tonks, M.P.
Chair

MINUTES OF PROCEEDINGS

Thursday, November 25, 2004
(Meeting No. 9)

The Standing Committee on Environment and Sustainable Development met at 9:15 a.m. this day, in Room 237-C Centre Block, the Chair, Alan Tonks, presiding.

Members of the Committee present: Bernard Bigras, David J. McGuinty, Hon. Denis Paradis, Lee Richardson, Christian Simard, Alan Tonks, Jeff Watson and Hon. Bryon Wilfert.

Acting Members present: Joe Comartin for Nathan Cullen, Cheryl Gallant for Brian Jean and Francis Scarpaleggia for Yasmin Ratansi.

In attendance: Library of Parliament: Tim Williams, Analyst.

Pursuant to Standing Order 108(2) and the motion adopted by the Committee on October 21, 2004, the Committee resumed its study of the Great Lakes Charter Annex.

It was agreed, — That the Chair be authorized to make certain amendments to the draft report for approval by the appropriate members.

It was agreed, — That, pursuant to Standing Order 109, the Committee request that the Government table a comprehensive response to the report.

It was agreed, — That the draft report be adopted as the Second Report of the Committee.

It was agreed, — That the Chair present the report to the House as its Second Report.

On motion of Bernard Bigras, it was agreed, — That the Standing Committee on Environment invite Mr. Ralph Goodale, Minister of Finance, before December 17th 2004, to answer questions on Canada's fiscal measures aimed at applying a sustainable development strategy.

At 11:00 a.m., the Committee adjourned to the call of the Chair.

Eugene Morawski
Clerk of the Committee

