

A Clear Vision for the Great Lakes Annex: Requirements for Successful Agreements



**Prepared on behalf of the
Canadian Environmental Law Association
By: Sarah Miller
Editor: Anne Wordsworth**

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A Clear Vision for the Great Lakes Annex: Requirements for Successful Agreements

Introduction

The Canadian Environmental Law Association (CELA) is a public interest legal clinic that provides legal advice and representation to the public, and has a mandate that extends to environmental law and policy reform.

CELA has been involved in Great Lakes water management and protection for over 30 years. CELA has written and published popular reports and made many submissions to governments on water protection and sustainability, and has carried out law reform campaigns to strengthen Great Lakes and Ontario regulations.

CELA was involved with other Great Lakes activists in efforts in 1985 to strengthen the Great Lakes Charter by making it legally binding. However, the final Charter was a non-binding water management agreement between the eight Great Lakes States and the Provinces of Ontario and Quebec. In 1997, Great Lakes United and CELA published *The Fate of the Great Lakes - Sustaining or Draining the Sweetwater Seas?*. This report offers a critique of twelve years of shortcomings and weaknesses of the Charter to protect the ecosystem from diversions and future threats. Today, twenty years after the Great Lakes Charter, many have realized that legally binding agreements are now needed to take us into a much more challenging era where there are growing conflicts over water use and supplies and instability caused by climate change.

CELA has also been involved in opposing each of the harmful large U.S. withdrawal and diversion proposals originating from the U.S. side of the Great Lakes since the signing of the Great Lakes Charter. We also successfully opposed the two significant Ontario withdrawal schemes since the Charter, the GRAND (Great Recycling and Northern Development) Canal proposal and a proposal to divert water from Georgian Bay to York Region. In 1998, CELA and Great Lakes United (GLU) received standing in the Ontario Environmental Appeal Board that was to consider the permit given by the Province of Ontario to the Nova Group to export bulk water in ships from the Canadian waters of Lake Superior to the Orient. As the result of negotiations with the government of Ontario, that permit was withdrawn before it established a dangerous precedent.

In 2001, the Governors and Premiers gathered in Niagara Falls to sign an Annex to the 1985 Great Lakes Charter. Annex 2001 promises to implement a set of binding agreements to "protect, conserve, restore, improve and manage use of the waters and water-dependent natural resources of the Great Lakes Basin." (See appendix 1 for the full text of Annex 2001).

Since 2001, discussions on how to implement the Annex have been the subject of

detailed review by the Council of Great Lakes Governors and their Provincial counterparts. CELA was one of several Basin stakeholders invited to be on an Advisory Committee to them. While negotiators did not inform their Advisory Committee of the jurisdictions' positions on issues they did use these stakeholder representatives as a sounding board for ideas and asked them to participate in scenario exercises and to submit written advice. Throughout this process CELA worked intensely with the other U.S. and Quebec environmental and conservation groups on collective submissions and responses to sets of questions submitted to Advisory Committee members. Three subcommittees were created for the work of the Annex negotiators. They were the Decision Making Standard, the Compact Structure and the Inter-provincial / International Agreement subcommittees.

Public consultation on a draft Annex agreement was conducted by the Council of Great Lakes Governors with Ontario and Quebec from July 18, 2004 to October 18, 2004. The Council received more than 10,000 submissions. The character of the public response was different in Canada than in the U.S. Many more Canadians suggested that the Annex needed to be fundamentally altered and strengthened by prohibiting rather than regulating diversions. Much public debate and media attention has ensued even after the consultation period closed. Many complex environmental, jurisdictional, legal and political issues are at stake in the Agreement considerations. It is no wonder, then, that the Draft Annex continues to be challenging for both the negotiators and the public.

In Ontario, the government has demonstrated their intent to address concerns raised about the first draft of the Annex. In December 2004 the Ministry of Natural Resources established an Advisory Panel to their negotiators made up of a broad cross section of 57 organizations representing stakeholders of the Great Lakes. They have also established a parallel panel of First Nations. These Panels have been advised in detail of the negotiations and their advice has informed the positions that Ontario has taken back to the table. Ontario's strong bargaining built on their continuing consultation has resulted in many of the fundamental changes requested by the Ontario public in the new draft agreements. Minister Ramsay and his staff are to be congratulated for their inclusiveness and persistence.

There has however been movement in the negotiations in new directions from the first drafts of the Annex released in July 2004. The next drafts of the Annex will be considerably altered. Some of the components of the first draft Annex Agreements that we have explored in this report may no longer be included in the next drafts. We have however chosen to still discuss them so that the full range of issues and options in play during the negotiations are documented.

The purpose of this document then, is to present what CELA considers to be the most salient issues with respect to the Great Lakes Annex based on our involvement for over twenty years with Great Lakes water management. Even though the State and Provincial governments have not yet agreed on issues central to the Annex, we will try to articulate our bottom line for what must be included in the Annex. This document outlines how the Annex must address key issues before CELA would support the next Annex draft agreements. Because this is a negotiation, it is probable that not everything we advocate will be included in the final Agreements. Our support will depend on the Agreements offering enough tools to protect the Great Lakes from

harmful withdrawals and a commitment to build a true conservation culture within the Basin to sustain our water resources in the future. We will consider issues of equity and voice because we believe that all ten jurisdictions must be involved in protecting the Great Lakes ecosystem. Our intended audience includes the Ontario and Quebec negotiators of the Annex Agreements, CELA partners and other environmental groups in Canada and the United States, and First Nations. What follows, then, are summaries of each of the key issues, their implications and our views of how best they can be resolved.

The Status Quo is Harmful to the Great Lakes

Even though the Great Lakes Charter was signed by the eight Governors and two Premiers in 1985 to set out principles for improved management of the Great Lakes and St. Lawrence River, crisis management continues in the region.

The high lake levels between 1985 and 1995 led to a sense of complacency and even to an assumption of water overabundance in many minds. Some riparian communities called for more water to be released from the Lakes as houses built too near to the water's edge were threatened by erosion of the shoreline.

Although the jurisdictions promised in the Charter to give prior notice and consultation on large water withdrawal proposals (over 19 million litres or 5,000,000 gallons), this gentlemen's agreement was not always followed. Several proposals became known first in the media. Semantics allowed for one large Michigan consumptive use proposal for irrigation in the Mud Creek area over the Charter trigger level to be approved. The State of Michigan did not consider that the permanent loss of water through uptake by crops to be a diversion.

Although the Charter intent was to protect the environment, not all jurisdictions passed subsequent legislation that would allow them to evaluate the environmental impacts of large proposals. Most decisions on diversions, since the Charter, were made on political grounds, without a common basis of environmental decision-making. Two diversion proposals in Pleasant Prairie, Wisconsin and Akron, Ohio were approved in the U.S. despite the fact that any single governor had the right to veto them under the Water Resources Development Act. Special conditions requiring water to be returned to the Great Lakes were attached to both proposals. However these conditions did not include local environmental protection measures. Pleasant Prairie was given until 2010 to build a pipeline to return wastewater. Akron took water from another watershed to replace the water it withdrew from the Great Lakes.

Our knowledge of our use of the waters of the Great Lakes remains spotty fifteen years after the Charter, as there is no common reporting and consistent correlated data gathering. We have no idea, and can only estimate our current and cumulative use. Five States have no ability to say "no" to withdrawal applicants as these states merely register, rather than regulate, water use.

We are entering a new water-short millennium in the world and on the North American continent. A third of the countries of the world are certain to have water shortages within two decades; yet, the Great Lakes region continues to overuse our water supplies by twice to three times more than other developed countries. All sectors inside and outside our region are scrambling to establish secure sources of water for growth, development and economic competitiveness in a trade-dominated global economy. Despite the recognition that climate change variables are already being felt in our region, Basin leaders still only give water sustainability lip service. The most important promise in the 1985 Great Lakes Charter -- "to develop a Basin Water Resources Management Program to guide the future development, management and conservation of the water resources of the Great Lakes Basin" -- is not even underway 20 years later.

CELA strongly supports fashioning a new regime for water sustainability in the Great Lakes. We cannot waste another decade. Nor can we waste this chance to entrench sustainability and environmental protection in a binding agreement. Morally, the more even handed, democratic and fair we are, the more enduring our legacy will be as keepers of one-fifth of the world's freshwater. Although they are certainly not the only actions needed, we see the Annex Agreements as the first step in creating a long overdue conservation culture within the Great Lakes Basin.

Fundamentals of the Annex Agreements

1.0 The Scope of the Annex Agreements - The governance of the Great Lakes: who is responsible?

Annex 2001 must specify a consistent legally binding approach to managing and protecting all water in the Great Lakes and St. Lawrence River Basin. The roles and responsibilities of each of its signatories, the eight Great Lakes Governors and the two Premiers, their agencies and each of the stakeholders in the Basin, must be clear. The Agreements must be equitable and fair and allow for equal public access, involvement and enforcement rights in all jurisdictions.

These goals have proven to be a challenge due to the different constitutional, legal and governance regimes of the States and Provinces who have the primary responsibility for the allocation of water and the two federal governments that have responsibility for boundary waters. Consequently, the Draft Annex was released in July 2004 as two agreements. One, the Great Lakes Water Resources Compact (hereafter known as the Compact), is legally binding between the eight U.S. States. The second, the Great Lakes Basin Sustainable Water Resources Agreement (hereafter known as the Regional Agreement) and signed by all eight Great Lakes Governors and two Premiers, is non-binding.

What is needed

CELA accepts that the best approach is to have two agreements for practical, legal, governance and political reasons as long as both agreements have the same features. It is our expectation that Ontario and Quebec will legally bind themselves to the Annex by adapting its central provisions in regulations to their provincial water management and protection laws. Ontario has already put a placeholder in their new water-taking permitting regime for Annex requirements.

We do remain concerned that the two draft Agreements released in July 2004 are not consistent. While there are common elements, there is not consistent language describing the decision making standards. The Compact fails to mention, and include, all the crucial environmental provisions for conservation and improvements to in-basin water management contained in the Appendix II to the Regional Agreement. Citizens' enforcement rights included in the Compact are neglected in the Regional Agreement.

Why it is needed

Without a coordinated, consistent and comprehensive ecosystem approach to all jurisdictions' water management activities, progress toward protection of the Great Lakes will continue being incremental, piecemeal, inequitable, and ineffective.

Requirement

The Annex should remain as two agreements as long as both agreements commit to a consistent, equitable legally binding standard with respect to water protection. There should be equitable public access and rights in both Agreements. Language describing obligations needs to be consistent in the Compact and the Regional Agreement. Quebec and Ontario should commit in the Regional Agreement to making the Annex

legally binding by adopting its provisions into their provincial water laws.

1.1 Ecosystem Protection - How will we protect the entire Great Lakes and St. Lawrence River ecosystem?

The draft Annex Agreements should protect all of the waters within the Great Lakes and St. Lawrence River watershed from harm and depletion. This includes the five Great Lakes, their connecting channels, and all the tributaries and streams flowing into the system, as well as the groundwater connected to them.

What is needed

The Annex needs to be ecosystemic by covering all of the components of the Great Lakes watershed. There are many potential disputes over the surface and groundwater boundaries of the Great Lakes, and who is entitled to use these waters.

Not enough is known yet about the extent of groundwater boundaries of the Great Lakes Basin. Negotiators are still discussing how to treat the groundwater divide. Under consideration is whether the groundwater and surface water divide should continue to be defined as coterminous, or should the Annex commit to modify the boundaries in the future as studies lead to more information on the extent of the Great Lakes groundwater watershed.

There has been much discussion of how the Great Lakes boundaries should reflect new knowledge of groundwater connections in the future. This is already very controversial, as there are communities outside the Basin dependent on groundwater such as Waukesha, Wisconsin that are requesting surface water from the Great Lakes. In the case of Waukesha, there are indications that they may be within the groundwater boundaries of the Great Lakes.

Another issue that has been raised in the negotiations as a requirement for the States is the inclusion of communities that straddle the surface water boundaries of the Great Lakes. The surface water boundaries in some states are very close to the shores of the lakes and do not extend far inland as they do in Ontario. These States have requested that these straddling communities be allowed access to Great Lakes water by being treated as if they are wholly within the Basin. In discussions, concerns have been raised about the potential for these communities to grow by amalgamation or the annexation of neighboring communities and the need to limit their growth.

There are some areas within the Basin who are already experiencing water shortages, and are considering new or increased supplies by removing water from a Great Lake over long distances by pipeline. The wastewater from these transfers could go into the watershed of another Lake. These proposals would then be considered to be intra-basin diversions and should be treated by the Annex as being comparable to diversions. Harm can come through these intra-basin diversions by diminishing the flows within the system between the source of the withdrawal and the place of the return flow.

In order to be durable, the Annex Agreements need to set out how to resolve water disputes in the future.

Why it is needed

The 2001 Annex also states that the Agreement will need to allow for flexibility in the future to incorporate better scientific understanding of ground and surface interaction and ecosystem impacts of withdrawals. Inclusion of groundwater should not come without a commitment to determine the recharge and depletion rates of aquifers connected to the Lakes.

New protection regimes that are consistent with other protections for surface waters in the Annex would need to be included for groundwater. Water quality is likely to be different between ground and surface waters of the Great Lakes. Making quality a component in future water allocation decisions will be essential for future decisions to move from ground to surface water. These issues are not yet adequately covered in the current Annex drafts.

Within each jurisdiction, there are a multitude of water-related activities that result in routine withdrawals of water such as municipal drinking water pipelines, small hydro projects, as well as agricultural, industrial, and recreational uses. We are already experiencing conflicts among some of these users and communities within the system.

Recently, our confidence in the large scale water management of the Great Lakes has been called into question when studies done by the Georgian Bay Association revealed that low water levels in the middle Great Lakes are more pronounced than the International Joint Commission's (IJC's) Boards of Control have recorded. Our hubris, that we can control the levels and flows of this huge system, is being challenged by natural and man-made events.

Requirement

The Annex needs to be ecosystemic by covering all of the components of the Great Lakes watershed.

The full implications of changing the watershed boundaries of the Great Lakes to include groundwater connected to the Lakes have not been fully explored. First, these ground water boundaries need to be mapped and the stability, quality and recharge of groundwater need to be evaluated. The impacts of the groundwater on the tributaries to the Great Lakes need to also be examined. Until this is done, no decisions should be made to extend the watershed boundaries. This said, these studies should be conducted soon to be fair to nearby communities. The Annex should specify a time frame of five years for their completion and a review of this issue.

Intrabasin diversions should continue to be treated the same as diversions in the Annex as they result in the same harm.

Communities currently straddling the Basin should be included in the Great Lakes watershed explicitly in the Annex. However, some special consideration should be given to discourage future sprawl, amalgamation and annexation that would change the present boundaries of those communities.

1.2 Other Agreements - Is Annex 2001 consistent with other agreements and laws?

Drafts of the Annex Agreements state that they must be consistent with other existing agreements, and consistent with the laws of all the signatory jurisdictions.

Concerns have been raised that the Annex Agreements could be in conflict with the Boundary Waters Treaty of 1909. The Treaty signed by the two Federal Governments established the International Joint Commission (IJC) and set out its mandate to settle transboundary matters between Canada and the United States. While the 1909 Treaty sets out protections against interference or obstruction in Boundary waters, it does not include protections for non-boundary portions of the Great Lakes and St. Lawrence River watersheds such as groundwater and tributaries. It has been argued that Lake Michigan is not a boundary water, as it is wholly within the United States.

Other deficiencies have been identified in the Boundary Waters Treaty. The Treaty creates a hierarchy of uses in the Great Lakes that reflects priorities in 1909, but omits key uses today. The Treaty sets out an order of use preference for the Great Lakes as first, domestic and sanitary uses, second, navigation, third, hydropower and lastly, riparians. It leaves out the environment and recreational uses which are of great importance today. The IJC has identified a need to include these new uses in the Reference they are currently carrying out on the regulation of Lake Ontario. The Treaty allows the IJC to get involved in water disputes if they receive a request for a reference for a study from both federal governments. These requests for references however can be ignored. The U.S. Government is currently ignoring requests from the Canadian government, and other concerned groups in both countries to hold a reference on the Devil's Lake Outlet which is scheduled this summer to release water from a lake in North Dakota into Manitoba waterways without studying the environmental consequences.

The Treaty has given the IJC powers of arbitration however those powers have never been fully exercised. Staff lawyers for the US and Canadian IJC told the Interprovincial / International Agreement Subcommittee of the Annex negotiators that it is unlikely that these powers would ever be exercised.

In the U.S., the Water Resources Development Act (WRDA) is the main U.S. federal law governing Great Lakes water diversion decisions. It gives any State Governor a veto over diversion proposals. However, WRDA does not cover groundwater. Many U.S. regulators have argued that WRDA is fragile and might not stand up to a court challenge.

Furthermore, in 2000, the U.S. Congress, in amending the WRDA, made it clear that the States and Provinces must create a mechanism to manage water withdrawals. The draft Compact states that the U.S. Congress declared that the purpose and policy of WRDA was "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 employing the principles of conservation and resource improvement for making decisions concerning the withdrawal and use of water from the Great Lakes Basin".

In December 2002, the Canadian Federal Government passed amendments to the Boundary Waters Treaty Act to give itself explicit powers to prevent bulk water exports and diversions from Canadian boundary waters. They also encouraged all Provinces to pass laws to protect their water resources from harmful removals. In recent submissions the Government of Canada called upon the Council of Great Lakes Governors "to afford this same level of protection in the Great Lakes Charter Annex implementing agreements" extending the prohibition to the U.S. States.

What is needed

The Annex Agreements are endeavoring to develop these common standards in order to overcome weaknesses recognized in the Boundary Waters Treaty and the Water Resources Development Act. The Annex Agreements must be explicit about their authority in relation to other agreements on the Great Lakes. Conversely, the Agreements should contain explicit language that domestic laws and policies containing stronger protections cannot be weakened by the Annex.

Why it is needed

Among the eight Great Lakes States and two Provinces, there are different standards with respect to managing and protecting water in the Basin. For example, Ontario laws require scrutiny of all water withdrawals over 50,000 litres (13,800 gallons), and Minnesota permits uses over 10,000 gallons, a level much more restrictive than most other Great Lakes jurisdictions are currently willing to adopt. Over time, Ontario's leadership could influence other jurisdictions to increase their own scrutiny of smaller withdrawals and evolve to a common standard that is more protective for all domestic withdrawals. This will only happen if the weaker ones do not erode the best water management systems.

Requirement

Annex 2001 must be protective of all parts of the Basin ecosystem and resources by explicitly stating that the Annex Agreements are not in conflict with other Treaties, Agreements and Acts that protect the ecosystem, such as the Boundary Waters Treaty of 1909. The Agreements should make it clear that domestic laws and policies containing stronger protections cannot be weakened by the Annex.

At the same time, both the Annex Compact and the Regional Agreement should explicitly encourage higher standards of protection such as those now in place in jurisdictions like Ontario, and they should provide for raising the standards in the future.

1.3 The Trade Context - Will the Annex Agreements make the Great Lakes vulnerable to trade challenges?

CELA has had its antenna tuned to trade and the Great Lakes for some time. In 1993, CELA co-authored *NAFTA and the Great Lakes: A Preliminary Survey of Environmental Implications*.

CELA has concluded that the status quo may make the Great Lakes vulnerable to trade challenges. Our conclusion is based on the fact that decisions on water diversion requests are arbitrary, capricious and political in nature, and no fair and equitable process is yet in place to adjudicate such requests. Currently, there are no Basin criteria or conditions for resource protection, and we cannot yet demonstrate that we have made legally binding protection of the waters of the Great Lakes and St. Lawrence River a priority in all ten jurisdictions.

There are numerous legal opinions speculating on the status of waters in their natural state in trade agreements -- opinions on what, if any, actions can transform these waters into a tradable good, and on whether GATT Article XI would protect or put the Great Lakes at risk in the future. We have not yet had a viable trade challenge about water. However, we do know most environmental and resource issues referred to trade panels have increased risk rather than furthering protection.

We know that there was a joint declaration made by the three governments of Canada, the United States and Mexico stating that the North American Free Trade Agreement (NAFTA) creates no rights to the natural water resources of any party unless water has entered into commerce, and has become a good or a product. This declaration did acknowledge that water in its natural state is subject to other international treaties such as the Boundary Waters Treaty. Then, we have President Bush's pre-election promise in 2004 that not one drop of water will leave the Great Lakes.

CELA has concluded that no bets should be placed on the fate of water and trade in the future. Trade regimes are likely to change and evolve just as political priorities in a water-short world will.

What is needed

We think strong Annex Agreements, once implemented, could be an insurance policy against future trade uncertainties. By putting a strong resource protection regime in place grounded in legally binding decision making standards, the Annex Agreements will ensure requests for water will be made to, and adjudicated by, Great Lakes jurisdictions subject to their own rules. This is a far better prospect than a trade tribunal hearing the same request.

The IJC recommends in their 2000 report on their Reference on Diversions that; "The NAFTA and WTO agreements contain provisions that prohibit export restrictions and discrimination between nationals and foreigners who are entitled to national treatment under those treaties. Sales of water that are allowed could not be restricted to the domestic market unless they fit within the health and conservation exceptions referred to above (i.e., restrictive measures would be necessary for the

protection of human, animal, or plant life or health or for the conservation of an exhaustible natural resource and are not applied in a way that constitutes arbitrary or unjustifiable discrimination or a disguised restriction of international trade). Recent decisions of the appellate body of the WTO may raise concerns about the circumstances in which environmental measures will meet the test of not constituting arbitrary or unjustifiable discrimination or a disguised restriction of international trade, even though they may otherwise relate to the conservation of an exhaustible natural resource or may be necessary for the protection of life or health. The WTO decisions have tended to focus on whether measures are arbitrary or discriminatory. In the light of these decisions, it appears that it would be desirable, whenever possible, for environmental measures to be based on an international agreement or arrangement.

If governments in Canada and the United States want to avoid falling within the investment provisions of the NAFTA, they should avoid creating undue expectations by clearly articulating their water-management policies in a fully transparent manner, by acting in a manner that is entirely consistent with their stated policy, and by limiting the time for which authorizations are valid."

CELA concurs with this advice.

Why it is needed

Clearly we need to take a precautionary approach to trade by entrenching protection of the waters of the Great Lakes and St. Lawrence River. With evolving trade agreements and increasing private sector efforts to buy water rights, decision-making on water management could shift away from the public sector in the future. This makes it imperative that we do all that we can now to set out in the Annex fair, equitable and strong decision-making standards to avoid future accusations of discrimination and protectionism. Most importantly, we need to do this, regardless of trade, to stop the harm of large and cumulative impacts of withdrawals, and create resiliency in the future from improved management and conservation.

Requirement

We think strong Annex Agreements, once implemented, could be an insurance policy against future trade uncertainties. By putting a strong resource protection regime in place grounded in legally binding decision making standards, the Annex Agreements will ensure requests for water will be made to, and adjudicated by, Great Lakes jurisdictions by their rules. This is a far better prospect than a trade tribunal hearing the same request.

Particular attention should be paid to making the Agreements non-discriminatory and even-handed to avoid future challenges. Other provisions such as return flow, improvement and conservation are central to establish that we are actively doing all we can to prevent harm to the Basin and to set a high bar for those considering water export to clear.

Quantity Issues

2.0 Trigger Levels - Are the trigger levels in the Annex protective enough?

A trigger level refers to a volume of water for withdrawal or diversion that would trigger management action.

The July 2004 draft Annex had several trigger levels;

- One for regional review of any new or increased diversions of 1 million gallons or 3.8 million litres per day averaged over 120 days;
- Another for consumptive use or for a combined diversion and consumptive use of 5 million gallons per day or 19 million litres per day averaged over 120 days;
- A third level for data gathering set out in the Decision Making Procedure Manual (attached as Appendix II to the draft Annex Regional Agreement) at 100,000 gallons or 379,000 litres per day.

What is needed

It will probably take time for managers to determine if the current trigger levels are strong enough to protect the Great Lakes over time. As we begin to better understand the impacts of our cumulative use and other climate conditions we cannot control, we may well need to lower these levels. The Annex should provide for future flexibility to strengthen trigger levels that are based on sound science.

The trigger level for consumptive use or for a combined diversion and consumptive use averaging over 120 days should revert to the 30 day average set out in the original Great Lakes Charter (See Section 3.3 for a full discussion of averaging issues).

In Section 2.3, we discuss a range of concerns about consumptive use. CELA sees no distinction between harm done by diversions out of the Basin and large withdrawals within the Basin. For those reasons, all large withdrawals should be subject to the same trigger level as those now set out for diversions.

Time will tell if the data that will be gathered on water use in the Basin is at a level that is adequate to inform decision making which protects the Great Lakes. Ideally, over time other jurisdictions should strive toward levels now in Ontario and Minnesota programs for reporting.

Why it is needed

There is regrettably little sound science to support the threshold at which a withdrawal would harm the Great Lakes and St. Lawrence River ecosystem. A volume set too low results in an unmanageable situation for each of the jurisdictions. Yet, one set too high may miss withdrawals that will affect the Basin. While no single withdrawal will have demonstrable impacts on the whole ecosystem, there would most certainly be local impacts. More importantly, harm would come from the cumulative impacts of all small and large withdrawals over and under the trigger levels. What is perhaps most important is that we have the ability to change these trigger levels over time as we better understand the complex relationships between water levels and the well-being and integrity of the ecosystem.

Only 1% of all of the water in the Basin is renewed on an annual basis. The other 99% was deposited when the glaciers melted 10,000 years ago. Annex 2001 must specify a trigger level that will not diminish this 1% margin of safety. This volume must be a starting point for a better management regime, and over time this trigger level must be decreased to result in less water being withdrawn across the Basin. This approach does not demand a zero-growth strategy for the Basin. Rather, it welcomes growth in conjunction with better water conservation measures that will support it.

Requirement

Annex 2001 should require a regional review of all proposed withdrawals of 1 million gallons averaged over 30 days or 3.8 million litres for diversions, consumptive uses or withdrawals that are a combination of both. Initially, all data on withdrawals should commence use at the 13,800 and 10,000 gallon per day range (50,000 and 38,000 litre range), and should be submitted to a central database immediately as part of each jurisdiction's reporting requirements under Annex 2001. The Annex should provide for annual reviews of the adequacy of trigger levels to protect the integrity of the Great Lakes and St. Lawrence River ecosystem.

2.1 Diversions - Will we be able to prohibit diversions from the Great Lakes?

Diversions are defined in the draft Agreements as a transfer of water from the Great Lakes Basin into another watershed (out of basin) or from the watershed of one of the Great Lakes into another (intrabasin) by any means.

What is needed

In an ideal situation we would be able to prohibit diversions from the Great Lakes by banning them. Lawyers caution that outright bans could trigger trade challenges. Prohibitions on ecological and environmental and resource protection grounds are preferable.

After the Nova proposal to withdraw large amounts of water from Lake Superior, the Canadian federal government set out on a three-step process to prevent bulk water export. They passed a Boundary Waters Treaty Act Amendment in 2000 to allow the Minister of the Department of Foreign Affairs and Trade (DFAIT) to veto diversions of boundary waters. As well, they joined with the U.S. Secretary of State to ask the International Joint Commission (IJC) to conduct an examination of the issues of large withdrawals and diversions in the Great Lakes. That Reference was completed in 2002, and set out legal, environmental and process recommendations for further actions for the States and Provinces. Lastly, the federal government tried to get all Canadian provinces to sign on to a Federal/Provincial Accord to prohibit bulk water export from Canadian watersheds. While the Accord was not successful, Ontario and Quebec were among the provinces to take legislative steps to do this. This means that steps have already been taken to prevent diversions by all Canadian Great Lakes jurisdictions. Throughout the Annex negotiations, the question that has remained unanswered is whether the American Great Lakes States have the legal ability and the will to implement a prohibition on diversions.

Countless lawyers have offered opinions on the best approach to diversions. Many fear that an outright ban would be challenged as discriminatory under trade agreements or be considered contrary to the commerce clause of the U.S. Constitution. Most legal experts have recommended that the best way to prevent and prohibit diversions is by strengthening State and Provincial environmental protection of the waters by requiring that large withdrawals not harm the Great Lakes. The drafters of the Annex chose this approach three years ago as being the most precautionary and beneficial. The creation of strict environmental standards for all withdrawals raises the bar considerably from the status quo under which there are currently no standards to apply to withdrawal requests. The stronger these decision making standards are, the less harm is done to the Great Lakes. Additionally, all of the standards must be met. The mere existence of enforceable decision making standards will, no doubt, act as a deterrent for those seeking water from the Great Lakes.

Annex 2001 must clearly and unequivocally state that future diversions and any expansions of existing diversions will be prohibited. The challenge is to build a regime that is tough enough to prevent harmful diversions far into the future when governments may be facing extreme water shortages and have less regard for resource protection. CELA has focused on ensuring that the decision making standards are

strong enough to prevent and deter most diversions. We have done this to ensure that we will have rigorous protection regimes for all future eventualities.

Why it is needed

The Charter states that new or increased diversions and consumptive uses are of serious concern, and recognizes that each State and Province must seek to better regulate both types of withdrawals. Annex 2001 needs to protect against mounting pressures from outside the Basin to share water. These pressures include burgeoning near-Basin municipalities, as well as communities within and straddling the Basin. During the public consultation on the Annex, many Canadians responded that the Annex Agreements were not strong enough because they did not prohibit diversions.

As this document is being written, the Great Lakes Governors are seeking legal advice on whether an outright prohibition on diversions in the U.S. is constitutional and could be trade proofed. At the same time, negotiators have gone back to the Governors to determine if there is political will to move [move] toward a prohibition of diversions. Options that have been discussed are:

- prohibition with exceptions;
- partial prohibition with no net loss;
- a moratorium for an unspecified number of years with more study and negotiation of a new standard; or,
- no net loss.

One of the main goals of the Annex Agreements is durability. While these Agreements are trying to eliminate surprises in the future, CELA fears that we may not be able to anticipate the nature of future challenges for Great Lakes water. For these reasons, CELA still concurs with the IJC and the U.S. Congress when they last reviewed the Water Resources Act (WRDA) and agrees that a further legally binding decision-making standard needs to be in place.

CELA would not support an option of “no net loss” without a prohibition on diversions. The International Joint Commission recommended no net loss as one of many components they would require of a proponent requesting Great Lakes water in their 2000 report on their Reference. The proponent would have to demonstrate that any removal would result in no net loss of waters to the area from which it is taken (and, in any event, no greater than a five percent loss in the process, the current average loss within the Great Lakes Basin)". CELA is not confident that the current average loss within the Basin of 5% is sustainable or measurable.

Requirement

CELA supports, and has always supported, the most restrictive prohibition possible to exclude all harmful diversions.

Regardless of whether a prohibition on use of the waters of the Great Lakes is achieved, we still need a common set of standards to protect the environment of the Great Lakes from future challenges and to manage our own use of the waters.

Annex 2001 must allow jurisdictions to deny future water withdrawal requests if they do not meet the decision-making standards. In essence, the decision making standards

will spell out the rules of engagement for future water requests. Several of these standards in the current drafts need strengthening (see Sections on return flow, conservation and improvement). The next draft of the Agreements should continue to require all standards be met.

2.2 Consumptive Use - Will we come to terms with our own thirst?

Consumptive uses of water means that portion of water, withdrawn or withheld from the Great Lakes Basin, that is lost or otherwise not returned to the Basin due to evaporation, incorporation into products or other processes, such as agriculture. The loss of this water from the Great Lakes poses a significant threat to the quantity of water available in the Basin in the future.

Consumptive uses have come to be understood by negotiators as synonymous with inbasin uses that do not return water that has been withdrawn. It should be noted that some diversion requests might also include water that will be consumed in products or processes. CELA remains concerned that current drafts of the Annex have different standards for consumptive uses and withdrawals.

What is needed

CELA has evaluated each Annex provision by its potential to do harm. It is not the use of the water that will do harm to the Great Lakes; it is the withdrawal of water. For these ecological reasons, the trigger levels and the decision making standards should be the same for diversions and consumptive uses. As well, we feel it would be prudent that all large withdrawals that do harm be subject to regional review by all ten jurisdictions. This is in no way denying riparian rights of inbasin users. It is an ecological necessity to allow regional review of all large consumptive uses.

Another option currently under consideration is one that requires that consumptive use be solely at the discretion of each State or Province. Others include prior notice and consultation with regional review if requested, or only prior notice and consultation to other jurisdictions.

The current draft of the U.S. compact has a 6-2 vote to approve an in-basin consumptive use while it requires a unanimous vote for diversions. This discrepancy in treatment could well be a legal weakness that would invite legal challenges.

Annex 2001 must specify greater restrictions on consumptive uses within the Basin. It is our hope that we will soon have uniform consumptive use limits for users. Annex 2001 must clearly demand that every sector -- agriculture, industry, municipal water suppliers, and other major users -- in every jurisdiction use the best available practices and science with respect to water consumption, and commit to continually improve these practices. These practices should be referenced in Appendix II of the Agreement.

Annex 2001 must also quantify the goals and targets that it needs to achieve by prescribing consumptive use coefficients for each sector. Targets must be binding to each of the jurisdictions and sectors. There must be enough flexibility in the agreement to allow for continual improvement with respect to consumptive uses.

Why it is needed

Uniform treatment of in-basin and out of basin uses is the path to preventing future

harm to the Great Lakes. It does not make the Annex vulnerable to challenge, and it makes a strong statement that the Great Lakes jurisdictions are subjecting themselves to the same requirements to protect the Basin from harm as they are requiring of others. This will lead us to accomplish conservation goals faster for our day to day water use. By conserving more water in our daily uses we will create more resiliency in the Basin to withstand future climate change impacts.

Requirement

The Annex should treat consumptive use the same as out of basin diversions and subject them both to the same decision making standards and trigger levels. The U.S. Compact would be stronger if it required unanimity to approve a large consumptive use. This equal treatment would move us faster down the path of efficient water use in the Basin.

Annex 2001 must demand best practices for water management from every sector in every jurisdiction. It must prescribe consumption goals and limits across the Basin by sector, or commit to a time in the near future when best practices for each sector will be defined in the agreements. It should assign the responsibility to determine sector by sector consumptive use co-efficients. It is understood that these goals will be strengthened in the coming years to become more restrictive of consumptive uses. Consumptive use should be subject to regional review in the same way as diversions are.

2.3 Cumulative Use - Will we come to terms with our own demands?

Scientists agree that no one withdrawal from the Great Lakes will have system wide impacts even though it will likely have local impacts. Instead, it will be the cumulative effect of many withdrawals that will cause harm.

The harmful effects of cumulative water withdrawals may often go unnoticed until it is too late without strong water withdrawal accounting mechanisms throughout the Basin. Article 201 of the Annex Agreement states that the cumulative impacts of Basin withdrawals will be reviewed every five years, each time incremental losses exceed 190 million litres per day, or at the request of one of the Parties. The current Annex requires all jurisdictions to gather information on all withdrawals in excess of 100,000 gallons or 379,000 litres per day average in any 30 day period and all Great Lakes Diversions. This is the information that will be reported to the Great Lakes Regional Water Use Data Base Repository which will be accessible to the public.

What is needed

Annex 2001 must prescribe that each jurisdiction undertakes an effective water accounting system rather than relying on the periodic review of cumulative effects. This data should cover all current allocations so that a baseline can be established in the first year. Over time all jurisdictions should be collecting data at the lowest practical level so that we have the greatest depth and breadth of information to lead us to a realistic understanding of our cumulative water use and the sustainability of that use. This data will need to have the scientific rigor to inform decision-making.

Why it is needed

The decision-making standards as proposed in Annex 2001 stipulate that new water withdrawals shall pose no significant adverse effects either individually or cumulatively.

There is a large disparity among jurisdiction's current ability to collect data. Some jurisdictions are already collecting data at lower trigger levels and in more detail than the levels suggested for data collection in the Annex. Will the data requirements of the Annex result in an adequate understanding of our use of the Great Lakes to inform future decision making and meet future management challenges? Every Great Lakes jurisdiction has a different water management system. Five Great Lakes States have registration systems, rather than a system that approves or permits withdrawals (See Appendix X for charts showing the diversity of the water management systems currently in place in the Basin). Consequently, data that has been collected historically is seen as inadequate. Many jurisdictions are already concerned about the costs of implementing the Annex requirements and are resisting tracking withdrawals at lower levels as being prohibitively expensive. In order to address this deficiency, jurisdictions must strive over time to report on all permits and recorded information. This should involve reporting or at least estimating of use under the trigger levels. Without accurate data on cumulative water takings, the precautionary principle heralded as a proactive approach for the Basin will not be possible.

Requirement

Annex 2001 must result in data collection that has scientific rigor and can support decision making on future Great Lakes water withdrawals. Over time, best efforts should be made to collect water data on all use in the Basin so that we understand our cumulative use and establish a baseline. One area where jurisdictions could volunteer to begin to implement Annex protections before the Agreements are approved is in the collection of cumulative water use data.

Process Issues

3.0 Phase-in requirements - How long should we wait for Annex implementation?

There has been considerable discussion of how long it might take for the final Annex Agreements to be implemented. At issue is how much time will be needed for the U.S. Compact to receive all of the approvals necessary for new laws to be passed in the eight U.S. State legislatures and in the U.S. Congress. In the two Canadian jurisdictions, less effort will be necessary as new laws will not be required. Ontario and Quebec will add Annex regulations onto existing laws. This phase-in time must not be so long that the Basin continues to suffer from less than adequate management practices.

What is needed

A phase-in time of 2 to 5 years is more desirable than the 10-year time frame outlined in the Agreement. The decision making standard proposed in the Agreement must be adopted sooner, rather than later, so that Basin-wide management of water can begin.

Why it is needed

Damage to the Basin is occurring now, and Annex 2001 must stop this damage from occurring as quickly as possible by stepping up the implementation of the Agreements. The fact that many communities close to, or straddling, the Great Lakes are already jockeying to stake their claims to future water supplies is no coincidence. They are anticipating the Annex, and are trying to avoid its prohibitive standards by securing their water now. The same may hold true for areas more distant from the Lakes. It will be in their interest to seek approvals now when there are no environmental hurdles for applicants. To demonstrate their good will, jurisdictions should volunteer to put some of the most important protections into practice before the full Agreement comes into force. A moratorium on large withdrawals could be put in place until the Annex Agreements are in force. Such a moratorium could create an incentive for action.

Requirement

Annex 2001 must commit to implementation within 2 to 5 years of being signed. Consideration should be given to putting in place now a moratorium on large withdrawals until the Annex Agreements are implemented.

There is one long overdue promise from the Great Lakes Charter that should also be acted on now. This is the development of a Basin Water Resources Program. Several Annex issues still will need more development prior to Annex implementation. The work on these issues could commence right away and could be integrated into this program development.

3.1 Informed Decision Making - Will we ever fill in our data gaps in the Great Lakes?

Data on the use of Great Lakes water is still inadequate. Twenty years ago the Great Lakes Charter called for; "the development and maintenance of a common base of data and information regarding the use and management of Basin water ... in comparable form, data regarding the location, type, and quantities of water use, diversion, and consumptive use and information regarding projections of current and future needs". A coordinated basin wide approach to collecting and managing data is long overdue.

What is needed

Annex 2001 must have as its goal a commitment to an improved and expanded Basin-wide data collection and management system. This system, set out in the Annex, should aim to correct some of the deficiencies with data collected since the Great Lakes Charter, and should expand to include data collection on groundwater withdrawals. Serious attention needs to be placed on other data gaps and inconsistencies so that a common baseline of current use can be established for all sectors in all jurisdictions. Over time, the trigger levels for data collection should go down so that there can be a more complete understanding of the cumulative impacts of uses. The current requirements for data gathering on withdrawals of 100,000 gallons or 379,000 litres per day is too high to achieve the understanding that is needed to support decision making in the future particularly in times of drought.

Why it is needed

Each jurisdiction, agency, and government that collects data may classify and manage that data differently. In order to achieve a Basin -wide management regime, each jurisdiction must commit to moving toward common data formats that can be readily exchanged. Attached to this report in appendix B is a chart compiled by Great Lakes United updating the information currently generated by the diverse laws governing water management in the ten Great Lakes jurisdictions. Data collection is not comprehensive. Some jurisdictions only collect data on certain sectors of users. Three restrict their data collection to public water supplies only. Not all jurisdictions collect data on groundwater use. Six jurisdictions collect data on use over 100,000 gallons per day as set out in the Charter. Minnesota collects data on use over 10,000 gallons per day and Ontario, the biggest user, collects information on uses over 50,000 litres per day. The current water use data collection summarizes incoming and outgoing data for the system and for each Lake. Almost no good water conservation data is collected. This data is not detailed enough to be useful in making informed decisions to protect the integrity of the ecosystem and to protect the Lakes from harmful local impacts.

Some jurisdictions' water management regimes are impediments to decision makers' and water resource managers' abilities to make informed and sustainable decisions about water allocation. These jurisdictions should immediately act to improve their systems so that they are not contributing more to the harm of the Great Lakes than others. The provisions set out in Section 4A of the Decision Making Standard Procedures Manual that requires each jurisdiction to submit their water management system to regional review and to a declaration of findings from all other Great Lakes jurisdictions will be a powerful tool to implement change on water management

deficiencies. This provision should be an annual requirement until there is uniform water management in the Great Lakes.

Principle V of the Great Lakes Charter states that States and Provinces must commit to developing a common base of data regarding use and management of Basin water resources. Annex 2001 affirms that these States and Provinces commit to an improved water management system that protects, conserves, restores, and improves the Basin.

Without a data collection and management system in place Basin -wide, progress cannot be accurately measured, and informed decision-making will not be possible. Basin water managers will continue to be unable to accurately predict and prepare for trends and changes in water use and demands. This makes it very difficult to rally support for conservation and demand management options. More readily available meaningful data in standard exchange formats will help water managers better manage the use of the Lakes.

Requirement

Annex 2001 must commit to an improved and expanded system of data collection and management wherein data is collected on all withdrawals by all sectors of users of both ground and surface water. Commitments must be made to collect this data at more micro-levels already achieved by Minnesota and Ontario to better inform future understanding of cumulative use.

Data should be collected on conservation. Serious efforts should be made on demand forecasting, particularly as it could relate to climate change. Efforts should be made to identify water wastage in all sectors. Averaging of data should be discontinued because it is not useful. Data gathering efforts need not wait for Annex Agreement approvals. They should begin immediately in jurisdictions such as Michigan that lags far behind other jurisdictions in gathering information on their use of the resource.

The provisions, set out in Section 4A of the Decision Making Standard Procedures Manual, require each jurisdiction to submit their water management system to regional review. Once this review is complete, a declaration of findings on whether the system is consistent with the Charter will be issued from all other Great Lakes jurisdictions. This requirement should be implemented immediately. This provision should be an annual requirement until there is uniform water management in the Great Lakes.

3.2 Averaging of Water Withdrawals - Will we choose the right level of protection?

The original 1985 Great Lakes Charter set trigger levels for diversion and consumptive uses based on daily withdrawal amounts and allowed for these amounts to be averaged over 30 days. Presumably, this was to allow occasional high use days to be offset by lower use days. This, in part, was done to accommodate seasonal users like agriculture. Attempting to keep to the promise of the Annex to be simple, negotiators have endeavored to have one rule for all users. However, agricultural users have argued that their growing season of intensive water use in the Great Lakes Basin is 120 days, and have advocated for the ability to average their withdrawals for irrigation over the whole growing season.

What is needed

From an ecological perspective, there can be a lot of harm caused by large seasonal withdrawals, particularly from tributaries to the Great Lakes within the watershed. Irrigation needs coincide with the seasons those tributaries are experiencing peak use in the summer. Many uses are likely to be high at that time. Encouraging averaging over 120 rather than 30 days could mean that harm caused by cumulative withdrawals by all sectors, and not only agriculture, could escape detection by going unnoticed. [Clarify what you mean by going unnoticed. It seems to contradict three paragraphs later where you talk about impact on sensitive environments.]

Annex 2001 must specifically state that water withdrawals must be measured using a 30-day averaging approach as is currently specified in the Charter.

Why it is needed

Averaging over a longer period masks the impacts of water withdrawals. Water managers need to be managing water on a monthly basis, and need to have a good idea about the impacts of withdrawals in any given month.

At risk is the sensitive habitat conditions of these streams and rivers which can be compromised by lowered flows, less dilution for pollution, increased turbidity, sediment disturbance and temperature changes. Biodiversity could be impacted by these impacts.

Substantial withdrawals for irrigation or other purposes may not be sustainable, and, therefore, sectors that demand them may need to alter their practices to become sustainable. Research into climate change adaptation in the Great Lakes certainly supports this. Considerable research has, for instance, been done on conversion to growing more drought-tolerant crops in the Great Lakes Basin in the future.

Requirement

Annex 2001 must clearly commit to, and support, a system of 30-day averaging of water withdrawals for agriculture and for every other sector.

3.3 Communities straddling the Basin and neighboring the Great Lakes - Are we overwhelming ecological protections with exceptions for our neighbors?

The issue of communities straddling or nearby the basin boundaries has become an important one, as Annex negotiations draw to a close. The issue is of such importance to some States that it is "a potential deal breaker". As the map in Appendix 3 shows, in the States of Minnesota, Illinois, Indiana, Ohio and Pennsylvania, the watershed boundaries are close to the shoreline. Michigan is the only State that is wholly within the Great Lakes Basin. In the first versions of the draft Annex Agreements, a twelve-mile exemption (19.3 kilometers) was suggested to include these communities. The public rejected that suggestion. Another suggestion was then made that a few communities straddling the basin boundaries be included as exclusions from the prohibition. Gary, Indiana and Waukeschau, Wisconsin were included in this category. However as the deadline to complete negotiations approached, brinkmanship resulted in a new proposal from some US States that counties bordering on the Great Lakes be included as exemptions. This late demand was put forward as a trade off for a prohibition on diversions which has made it difficult to reject for negotiators. CELA learned of this as members of the Advisory Panel to the Ontario Government. We raised our concerns about the implications and extent of these exclusions.

What is needed

CELA will need to be assured that this latest proposal is not opening access to water unnecessarily to all communities nearby the Great Lakes. A glimpse at the map in Appendix 2 to this report shows there are around **seventy** of these bordering counties or districts. A visit to a U. S. Census website for 2003 showed that there are large populations in these bordering counties in the U.S. We did our own calculations, which are not accurate, because we could not distinguish which portions of those populations are already within the basin. However we found that these border counties contained 20.34 % of the population of New York, 3% of Pennsylvania, 17% of Ohio, 24% of Indiana, 47% of Illinois (although they are left out of the current proposal), 24% of Wisconsin and 6% of Minnesota 2003 populations. Is this a solution that is too large to fit the problems of a few communities?

It is troubling that the negotiators have spent all this time protecting the ecological integrity of the Great Lakes watershed but are suggesting they ignore the boundaries of other watersheds contained in all these counties and districts. In Canada the border districts extend well into the James Bay watershed. Ontario says it would never allow proposals to move water to these neighboring areas, and would ask to be excluded from the exclusions. Illinois also would ask to be excluded because they prefer to continue to rely solely on the Supreme Court degree to manage their Great Lakes diversion. Quebec with their focus on sovereignty is likely to seek the same rules as the U.S. States apply to themselves.

This last minute proposal turns the Annex away from a simple, transparent scheme into a hornet's nest of exclusions. As this is being written Ontario is attempting to place special conditions on these exclusions to ensure that few can meet the tougher test.

What is disappointing about this proposal is that it is forcing a politically expedient choice but not a choice based on protecting ecosystem integrity or sound science, values that were to be central to the Annex Agreements. CELA is concerned that redrawing the boundaries of the Basin for political expediency will profoundly weaken the Annex and could weaken the Agreements by making them vulnerable to challenges of discrimination, arbitrariness and capriciousness.

The Annex Agreements should be proactive, and define clearly what areas are included within the geographical boundaries of the watershed. Exemptions from Annex provisions for some could be used to argue later for other exceptions. The concerns raised so late about neighboring communities demonstrate that the Annex will have a lot of influence over Great Lakes municipalities in their role of providing public water supplies. These municipalities have not been adequately involved in the Annex negotiations to date.

The importance of the Annex is just beginning to filter down to these local governments. In March 2005, Great Lakes Mayors made the following statement; "We further express our serious concern about the water resources of the Great Lakes and St. Lawrence River basin and have particular concerns with respect to water diversions and withdrawals and require a seat at the table where decisions on Annex 2001 are being made". Considerable efforts are still needed to integrate Great Lake towns and cities into the Annex implementation.

Why it is needed

Growth, sprawl and development in the future in these straddling communities and bordering counties have the potential to extend their municipal boundaries far beyond where they are today. Concerns have been raised about those communities amalgamating with other communities or being annexed by other communities in the future. This could result in new boundaries extending well beyond the ground and surface watershed boundaries of the Basin. This could result in promoting urban sprawl. Certainly these neighbors will want to stake their claims for future water supplies before the Annex comes into force with special conditions for these exceptions. Ontario is seeking more information on straddling communities so that the scope of these issues can be understood.

Some options that could be considered are:

1. Exemptions for straddling communities could be considered once it has been clearly shown that those areas are areas of groundwater recharge that contribute to the Basin water resources,
2. Straddling communities could be included within the watershed as long as their municipal boundaries remain the same,
3. Prior to official plan changes to the boundaries of these communities, the jurisdiction should determine if water supplies to areas of new growth meet Annex provisions and intent and do not result in diversions.

Requirement

Special additional conditions will need to be in place if straddling communities and neighboring counties are included as part of the Great Lakes Basin. All conditions of

the Annex must apply to these communities and their growth in the future should trigger evaluation of whether new municipal areas would receive water from the Basin.

Inclusion of these exceptions should not come without stricter conditions and provisions to review exemptions in the future including provisions to withdraw exclusions, and eliminate the inclusion of bordering communities and counties altogether.

Additional efforts are needed to integrate Great Lakes municipalities into the Annex, particularly as it pertains to public water supplies. The next draft of the Annex Agreements should include mechanisms to do this.

3.4 First Nations and Tribes - Will we stop historical exclusion in the Great Lakes?

First Nations and Tribes have treaty rights to natural resources such as the waters of the Great Lakes. As CELA and other Great Lakes groups prepared for new basin efforts to strengthen Great Lakes protection in December 2000, we prepared a collective Agenda for the Great Lakes and St. Lawrence River Basin Water Use and Restoration. http://cela.ca/uploads/f8e04c51a8e04041f6f7faa046b03a7c/503water_use_eco_rest.pdf

This report recommended that "Tribal governments should be included in deliberations by state and provincial governments on a strategy for ecologically protective basin water use management". Again, when some of these same environmental groups were invited to join a stakeholder Advisory Committee to the Annex negotiators, we repeatedly requested and made submissions that Tribes and First Nations be included. Regrettably, this did not happen.

What is needed

Annex 2001 must explicitly recognize treaty rights to natural resources that have been established, and make provision for those rights to evolve in the future. Annex Agreements should take an approach to management of the Great Lakes that allows those rights to be fully exercised. Every jurisdiction involved in managing the Great Lakes must work with First Nations and Tribes on a government-to-government basis to achieve the best possible management regime.

Why it is needed

Great Lakes Tribes and First Nations gathered in November of 2004 in Sault, Michigan, and issued a "Tribal and First Nation Water Accord" (See <http://www.anishinabek.ca/uoi/wateraccord.htm>). This Accord states that Tribes and First Nations "demand that our rights and sovereignty be respected, that any governmental effort to protect and preserve the Waters of the Great Lakes Basin include full participation by Tribes and First Nations, and we also hereby pledge that we share interests and concerns about the future of the Great Lakes Waters, further pledging to work together with each other and the other governments in the Great Lakes Basin to secure a healthy future for the Great Lakes".

First Nations and Tribes have sovereign treaty rights that must be acknowledged by interacting with these Nations on a government-to-government basis. As treaty challenges result in more clarity about First Nation rights to water resources and the Lake bottom, it will be important to have those Nations support Annex protections. Furthermore, First Nations and Tribes may offer traditional ecological knowledge that may not always be considered by Western science.

Requirement

First Nations and Tribes must be involved in the decision-making, support and management of the Great Lakes on a government-to-government basis in the Annex and as set out in their Tribal and First Nations Great Lakes Water Accord.

3.5 The Need for Multinationalism - Will governments and agencies cooperate to achieve new levels of protection needed for the Great Lakes?

The Great Lakes Charter states that the Great Lakes are valuable regional, national, and international resources for which the federal governments of the United States and Canada and the International Joint Commission have, in partnership with the States and Provinces, an important, continuing, and abiding role and responsibility.

What is needed

A commitment and strengthening of the professed multinational approach to managing the Great Lakes is needed. Efforts were made in the draft Annex Agreements to ensure that the Annex does not conflict with the Boundary Waters Treaty of 1909 and other Federal laws. It cannot be ignored that the Annex offers further protections not set out in the Treaty or other laws. It is likely this language will be strengthened in the next drafts of the Annex.

Why it is needed

The Great Lakes Annex Agreements flow directly from recommendations made by the federally appointed International Joint Commission in their 2000 Report (See <http://www.ijc.org/php/publications/html/finalreport.html#11>) to the governments after concluding their Reference on harmful withdrawals and exports from the Great Lakes. Other recommendations for legally binding standards were made by the U.S. Congress the last time they renewed their Water Resources Development Act (WRDA). As well, the Canadian Government urged all Provinces to strengthen their water protection laws after the Nova proposal to export water to Asia.

Nonetheless, the release of the draft Annex Agreements sparked concern and turmoil about the roles and responsibilities of the Federal, and Provincial and State Governments. At times, some politicians seemed to share this confusion with the public. During the Annex negotiations, the IJC released a three-year review of its 2000 report that was interpreted by some to be critical of the Annex process, even though the draft Agreements were not yet well developed. The amount of work needed to put long overdue protections in place in the Great Lakes is daunting.

As we have pointed out earlier, the Federal Governments are bound to protect the boundary waters in each of their countries by the Boundary Waters Treaty Act of 1909. However, these boundaries omit the tributaries, and groundwater portions of the Basin. Additionally, the Canadian Government has responsibility to protect fisheries, water for First Nations, navigation, trade in bottled water and water on other Federal lands, such as parks. The Provinces have separate responsibilities for the day to day allocation of water for all other uses.

The U.S. Government has a much more direct role to play in the Annex because Congress has to approve the Great Lakes Water Resources Compact before it can become binding. The greater the support that is given in Washington, the less likely the U.S. Government would ever support the use the commerce clause of the U.S. Constitution to compel a U.S. State to share water with a State outside the watershed

of the Great Lakes.

Without stronger federal government involvement, there will be less certainty in the management of the Basin resources. Basin-wide management of the Great Lakes requires a new era of Basin-wide cooperation and coordination.

Requirement

Basin wide management of the Great Lakes requires a new era of Basin-wide cooperation and coordination. The new draft of the Annex must delineate the scope of the Annex and its relationship to other Federal laws and treaties to ensure that they are complementary and not in conflict.

3.6 Public Participation - Will residents of the Great Lakes be able to shape its future?

Great Lakes and St. Lawrence River residents, both in the United States and Canada, should have a direct role in decisions regarding the Great Lakes because the public is affected by such decisions.

What is needed

Ample opportunity for public comment and discourse in decisions regarding the Great Lakes must always be provided, whether comments are received from individuals or the interest groups that they support. Annex 2001 must reiterate and commit to a management regime that encourages public participation, especially at the regional review level where decisions on diversions are made.

Citizens in both countries should have the same rights to participate in Annex decision-making, both at the local and regional review level. Funds should be provided to allow citizen interventions. Enforcement provisions should be comparable in all jurisdictions. Adequate notice should be given on Annex activities. Access to information should be equitable in all jurisdictions, as should transparency of all Annex processes. Consideration should be given to a central Annex web site that would provide not only process and procedural and decision-making information but the data collected on Great Lakes water use as well.

The public has been critical of the amount of time allowed for comment on Annex drafts. Time for public comment and interventions on further Annex decisions should be adequate.

Why it is needed

The two draft Agreements did not contain parallel language on citizen rights to intervene and to enforce Annex decisions. This should be remedied in the next versions of the Agreements. Forty million people reside within the Great Lakes Basin and this number is expected to rise sharply in the coming years. The responsibility rests with every resident to ensure their own actions contribute to the integrity and health of the Basin. Success demands that citizens become aware of their water and how best to use it. A management regime that excludes public participation is bound to fail, not only because citizens are integral users of water, but also because their insights, opinions, and support of the management regime is essential.

Requirement

Annex 2001 must restate its commitment to a management regime that encourages public participation at every level, including regional review of diversion proposals. Citizens in both countries should have the same rights to participate in Annex decision-making both at the local and regional review level. Uniform language describing these rights needs to be in both Agreements. Information on Annex decisions should be centralized on one web site so all Great Lakes residents have the same access. The public has been critical of the amount of time allowed for comment on Annex drafts. Notice for public comment and interventions on further Annex decisions should be adequate.

Ecosystem Issues

During the 1970's, the Great Lakes community, the governments and the International Joint Commission worked hard to establish that an integrated ecosystem approach be taken in the Great Lakes Water Quality Agreement to improve the health of the Great Lakes. These included all of the interacting components which had an impact on water quality including air, land, water and living organisms including humans. Similarly, water quantity standards should have the same breadth so that decisions on water allocation in all jurisdictions can evaluate the impacts on ecosystem integrity and health. Little is known about the impacts of water levels on ecosystem health. There are no scientific formulas available to determine this. We do know, however, that the Great Lakes ecosystem thrives because of its fluctuations. Its resiliency and biodiversity depends on annual seasonal fluctuations, flows and ice cover and on lengthier whole system cycles of high and low lake levels about every seventeen years.

4.0 Decision Making Standards - Have we set the bar high enough to protect the Great Lakes?

The crux of the Great Lakes Annex Agreements' protection provisions are the decision making standards for regulating large withdrawals from the waters of the Great Lakes Basin. This is the first time that a set of environmental protection standards has been developed for regional decisions on large potentially harmful water withdrawals from the Great Lakes.

Critics of the standards have voiced their beliefs that these standards will have the effect of allowing diversions. These portrayals are not consistent with the intentions of virtually everyone, hundreds of people, who have spent years striving to forge these difficult Annex Agreements.

Serious evaluations of the Agreement should evaluate whether the standards have raised the bar high enough to prevent harm to the Great Lakes. **All** of these Standards must be met. Are they collectively a serious deterrent for those looking far and wide for new water supplies for the future? CELA thinks they are. The Council of Great Lakes Industries has told other Annex Advisory Committee Members that they have calculated these Standards will cost applicants millions of dollars to address.

We need to keep in mind that all of these standards apply to diversion proposals. For consumptive use, all but the improvement standard apply to large in-Basin withdrawals. These standards are found in Appendix 1 to the Regional Agreement that will be signed by all Great Lakes Governors and Premiers.

The Decision Making Standards require an applicant to prove that:

- There is no reasonable alternative from other sources including water conservation.
- The volume requested is reasonable for the use.
- They will return water withdrawn back close to the point of taking (less an

allowance for consumptive use (See Section 4.3 for further discussion of return flow).

- The withdrawal of the water will not result in any local or cumulative adverse impacts to the quantity or quality of the waters or the water dependent natural resources of the Great Lakes Basin.
- A conservation plan is integrated into withdrawal requests.
- An improvement plan is integrated into the request (see Section 4.1 for further discussion of this standard).

What is needed

A set of strong decision making standards is needed to apply to all large potentially harmful withdrawals from the Great Lakes watershed in the future. As we stressed in our discussion on trigger levels, it would be an advantage to have the same standards apply to in-basin and out of basin requests because they both have the same potential to result in harm. For this reason, we would support the application of the improvement standard to consumptive uses with some conditions (See the next section 4.1 for details on those conditions).

The U.S. Compact paraphrases the Decision Making Standards in Appendix 1 of the Regional Agreement. The language in the compact and the terminology describing these standards should be consistent to avoid misinterpretation and misunderstanding in the future.

Why it is needed

Decision Making Standards are needed to control our own in-basin use of the water as well as to apply to requests for water from out of basin. This will show that Great Lakes jurisdictions are being even handed, and will avoid future trade challenges on the grounds of discrimination. Most importantly, it demonstrates that Basin jurisdictions are serious about their own roles in protecting the Basin.

Even if the Agreement introduces a Basin-wide prohibition on diversions, CELA feels supports the retention of these standards. The Annex Agreements, in part, were deemed necessary because there is uncertainty about future challenges that could arise from trade agreements. CELA has concluded that where trade agreements are in play, there is no certainty about the decisions that will be made, and that our best bet is to be precautionary by enshrining these protections as soon as possible.

These standards need to be ecologically-based to protect the delicate balance of the integrity of the ecosystem that we know is already under stress from climate change, invasive species, pollution and previous hydrological alterations. Collectively, they will act as a significant deterrent to those contemplating large withdrawals from the Great Lakes because the process to get an approval will be very costly and difficult. This, in turn, will encourage conservation and wiser water use for those seeking quick fixes for future water supply.

Requirement

A set of strong decision making standards is needed to apply to all large harmful withdrawals from the Great Lakes watershed in the future. As we stressed in our discussion on trigger levels, it would be an advantage to have the same standards

apply to in-basin and out of basin requests because they both have the potential to result in identical harm. For this reason, we would support the inclusion of the improvement standard to consumptive uses with some conditions (See the next Section 4.1 for details on those conditions).

The U.S. Compact paraphrases the Decision Making Standards in Appendix 1 of the Regional Agreement. The language in the compact and the terminology describing these standards should be consistent to avoid misinterpretation and misunderstanding in the future.

4.1 The Improvement Standard - Will the Improvement Standard contribute to the health and restoration of the Great Lakes?

The Resource Improvement Standard is one of four criteria set out in Directive 3 of the first draft of Annex 2001. It stipulated that those that divert water must work to help continually improve the Basin. Standards of this type are widely in use in the U.S. Controversy has developed around this standard in Canada, as some critics have singled it out from the rest of the required standards. This has resulted in limited discussion of the deterrent value of the complete set of standards as they would apply to a withdrawal or diversion request.

Critics of the improvement standard portrayed it as a license to buy a diversion. CELA shares their concerns that water rights could be seen to be established by these improvements if they are not defined and regulated correctly by the Annex. These "rights" could be traded in the future, furthering the commodification of water in a way that could invite trade challenges.

Others see the improvement standard as a net gain and as a visionary means to implement future improvements to the status quo. CELA also finds this impetus to make the Annex contribute to restoration a powerful goal. CELA believes that these two diametrically-opposed views can be melded and essential differences can be mended. It would be regrettable if improvement were reduced to a concept from a standard in the next version of the Annex agreements because the next version will prohibit diversions.

What is needed

The resource improvement standard could endure if it were extended to all large consumptive users as well as to diversions. This would oblige the Great Lakes jurisdictions to define and contribute to an improvement plan themselves rather than dangerously creating the impression that improvement would only be possible if it were paid for from users exporting water from the Basin.

We can mark the lack of such a plan to the failure of perhaps the most important promise made in the original Great Lakes Charter ~ the promise to create a Basin Water Resources Management Plan. Had this plan been put in place, improvements for the overall Basin and components of its watershed would already have been identified and underway. Environmental and conservation groups' submissions on the Annex have identified a list of hydrological improvements that are needed. They have stressed that the Annex should focus on these improvements rather than other priorities that already fall under the obligations of other agreements such as the Great Lakes Water Quality Agreement. In this way, the Annex has created the impression that those existing obligations need not be met, or that there can be tradeoffs between Annex and other obligations and responsibilities.

Creating this context for the improvement of the Great Lakes will take time. The idea should not be lost from the Annex. Instead, the next draft of the Annex should oblige the jurisdictions to develop a Great Lakes Improvement Plan (as part of the long overdue Basin Water Resources Management Plan) within two years time. This work could be done **before** the Annex is signed and implemented. They should put

placeholders in the Annex for this plan and require themselves to be leaders in that plan by extending the improvement standard to consumptive use.

Why it is needed

There is little information on the local and cumulative impacts of altered hydrological levels and flows in the Great Lakes and St. Lawrence River. Scientists agree that the fluctuations of the Lakes are essential for their health but we do not yet know what degree of change is healthy or harmful. The creation of an improvement plan would bring attention and expertise to the potential and role of hydrological restoration to increase and protect biodiversity and ecological functioning of the ecosystem. A meaningful resource improvement plan is needed to begin the long process to restore degraded areas in the Great Lakes and to prevent and reduce future damage to the Basin ecosystem. The resource improvement standard would be a key component of such a plan. The standard needs measurable outcomes. Most of all, it requires the support for the concept and commitment from each jurisdiction. The goal of the standard should be to continually improve the ecosystem. There needs to be a restatement of support for this concept in the Compact and Regional Agreement.

Such an improvement standard would be hugely beneficial once it is has been made part of a Basin approved Improvement Plan, is publicly debated and is written so that it has practical application for people managing water at the operational level, particularly those working on watershed planning within the Basin.

Requirement

The next draft of the Annex should oblige the jurisdictions to develop a Great Lakes Improvement Plan (as part of the long overdue Basin Water Resources Management Plan) within the next two years so the plan will be ready before the Annex is implemented. Both Annex Agreements should require Basin jurisdictions to be leaders in designing and regularly updating that plan.

The Improvement Standard should also apply to consumptive use. Such an improvement standard that is publicly debated and meaningful to people at the operational level could be one of the most prescient requirements of the Annex Agreements. The public should be involved in the development of such a Plan.

Improvements in the Plan should be limited to hydrologic improvements to the levels and flows and fluctuation of the system so that they do not intrude on other obligations set out under the Great Lakes Water Quality Agreement and other programs.

Further language is needed in the Annex to ensure that improvements are not construed to be tradable for water rights.

4.2 Conservation - Will the Annex give conservation momentum in the Great Lakes?

Annex 2001 must champion the efforts and activities required for better Basin-wide conservation to become a reality. This was the most widely supported submission made by the 10,000 respondents to the first draft of the Annex. People were ashamed to be counted among the biggest water wasters in the world. Will voluntary measures without goals give us conservation momentum in the Great Lakes?

What is needed

The perception that there is an abundance of water in the Great Lakes Basin needs to be challenged through education and outreach programs in each jurisdiction. Annex 2001 proposes a decision-making standard that each State and Province should apply that would promote water conservation as an alternative that precludes any new withdrawals. Furthermore, proponents of new withdrawals must specify the conservation measures that they intend to adhere to in the proposed water taking.

Better Basin-wide conservation needs to be measurable from year to year so that people within the Basin can ascertain their progress on this front. The Annex must specify overall targets and timetables for a decreased use per person in the Basin in a plan that sets out a common goal for all Basin jurisdictions. Conservation goals need to be sector specific and the goals for all sectors should add up to an overall common reduction goal. Opportunities need to be identified that would reward successful conservation efforts and penalize water waste. There is no lack of information on best practices for conservation worldwide. All that remains to be done is a plan to require best practices in the Great Lakes.

Why it is needed

Many felt that Annex Agreement might not been needed if, instead, we had set a goal to reduce our water use by a third to create a margin of safety for the future. The trouble is that few people volunteer to make changes even if it can be demonstrated those changes will save money and improve their efficiencies over time.

Conservation is particularly important for groundwater. We need a much better understanding of the recharge rates of our Great Lakes aquifers. When water is removed from an aquifer for human uses, the rate of withdrawal can greatly exceed the rate of re-charge. Drought and climate change can lower recharge rates and make aquifers non-renewable. Too little has been done by the States and Provinces to reduce water use and wastage within the Basin since they signed the Great Lakes Charter. Only 1% of the Basin surface waters is renewable annually. Therefore, conservation measures should be paramount. Only through conservation will it be possible to achieve and maintain a sustainable quantity of water takings. Such takings should ultimately cause no "significant adverse impact," either individually or cumulatively. Yet, the Ontario Ministry of Natural Resources has projected that consumption will continue to increase over time. This trend needs to be reversed as quickly as possible.

Requirement

Clearly specified measures for conservation are needed in both Annex agreements and an overall conservation plan for the Basin. Basin-wide targets and targets within each jurisdiction should be set for every sector. An initial target to reduce overall consumption by 25% by 2015 must be advocated and pursued. This would bring our region's use to current levels of use in the European Union.

All Great Lakes jurisdictions should adopt Annex conservation goals and targets in their implementing legislation. Annual reporting on progress on conservation should be required by the next annex agreements.

4.3 Return Flow - Will we be able to require water removed from the Basin to be returned without causing harm?

Return-flow is defined in the Great Lakes Basin Sustainable Water Resources Agreement as "the remaining portion of water withdrawn which returns naturally or is returned to the source watershed after use, and thus becomes available for further use in the Great Lakes Basin." It is a requirement of Decision Making Standard 3.

What is needed

The Annex needs to include a more precise definition of what does, and does not, constitute return flow, as well as direction for decision-makers as to how to best manage water takings that claim return flow.

Return flow should be defined as water that is returned "as close as possible to the point of withdrawal", and 100% of the water withdrawn less a consumptive use allowance should always be returned to the same surface or aquifer source it came from. Water quality laws should result in return water not becoming degraded or altered between its withdrawal and return. The Annex should state this obvious requirement in order to have the tools to evaluate harm.

In the last few weeks, it has become apparent that it will also be necessary for the Annex to spell out what should *not* be accepted as return flow. Last minute suggestions to negotiators that replacement water be allowed from areas outside the Great Lakes for diversions and consumptive uses have been made. CELA would not accept allowing water from outside the Great Lakes to replace water taken from the Lakes. Not only is it hypocritical to deplete other watersheds in the interest of protecting the integrity of the Great Lakes, but it is inviting invasive species into the Great Lakes.

Why it is needed

We have had a sorry history of abusing others' watersheds in the supposed interests of the Great Lakes. We have diverted water into the Great Lakes at Long Lac and Ogaki, Chicago continues to dump its waste water into the Mississippi, and the City of Akron, Ohio permanently removed water from the Ohio River watershed to replace water diverted from the Great Lakes to their community. A more precise definition of return flow is needed in the next drafts of the Annex. Return flow must mean return of the same water withdrawn as close to the point of taking (i.e. the same waterbody or source water system) unaltered or restored to same quality. The Annex should rule out replacement water from outside the Great Lakes so as to avoid threats from invasive species. On this point, water withdrawn from the Great Lakes should not be mixed with water from other sources before it is returned to the Great Lakes to further guarantee protection from invasive species. Water quality needs to be part of the return-flow definition as well, as do the required values of temperature, salinity, and turbidity.

Requirement

A more precise return flow definition is needed because the definition is leading to water takings that are too far removed from the original intent of the definition.

Return flow must mean return to the point of taking (i.e. the same water body or source water system) unaltered or restored to same quality. 100% of the water withdrawn should be returned less an allowance for consumptive use.

The definition should specify that there should be no mixing of the water withdrawn from the Great Lakes with water from other sources in order to prevent the introduction of invasive species or other threats. Explicit language requiring that no replacement water from other watersheds will be permitted should be added to the Annex to avoid harm from invasive species as well as harm to those watersheds.

4.4 The Chicago Diversion - Will Canadians have a place at the table if proposals to increase the Chicago Diversion are made in the future?

The Chicago diversion was constructed in the mid-1880s to allow navigation between the Great Lakes and the Mississippi River. Later that century, the growth of Chicago led to a public health crisis. Waterborne contamination from human waste killed 12 % of the population. The diversion was then used to redirect the City's wastewater directly into the Mississippi.

For all of the 20th century, this diversion has been the subject of controversy and litigation. Canada has objected by diplomatic notes and other communications to repeated attempts to increase the size of the diversion at Chicago. In 1967, the U.S. Supreme Court decreed that the diversion be limited to 3,200 CFAs (91cms) averaged over a forty-year period. In 1996, a Memorandum of Understanding allowed for a change in the diversion accounting systems to now rely on estimated flows and uses to further refine the amount diverted. This has not eliminated concerns about the diversion and future requests for increases as the population of Chicago increases, despite the laudable efforts that the City is making to cut their use with conservation.

The rational solution would be for Chicago and their suburbs to invest in sewage treatment facilities that would give them confidence that they could adequately treat their water and return it to the Great Lakes rather than to the Mississippi River. It will only be a matter of time before the Chicago Sanitary and Ship Canal structures reach their life expectancy and need to be replaced.

During the Annex negotiations, the Canadian Provinces expressed the need to have a voice in the consideration of future requests for increases in this diversion. The Chicago Diversion represents the second largest removal from the Great Lakes after all of the combined consumptive uses that total 4,270 CFAs. As this diversion escapes the return flow provision central to the success of the Annex expanding it will mean more water will be permanently lost to the Lakes.

What is needed

The Annex needs to include a mechanism to give the Provinces the assurance that they will be at the table to discuss any future increases in the Chicago Diversion. If the matter were to be heard again in the U.S. Supreme Court, it could not be guaranteed that any Provincial, or even the Federal Government of Canada would get standing in U.S. courts. Future increases to the Chicago Diversion should be subject to Regional Review as set out in the Agreement. A barrier to achieving this in the past was the assertion that Lake Michigan was not included as part of the boundary waters because it is wholly within the U.S. However, scientists today agree that Lake Michigan and Lake Huron are one hydrological body. The same language is needed in the next Draft of **both** the Annex Agreements to acknowledge this. Only the Draft Regional Agreement contained this important language in its definition of Hydrologic Units. "For the purposes of determining whether a withdrawal proposal is a new or increased diversion, the Lake Michigan and Lake Huron watersheds are considered to be one hydrologic unit". This definition, omitted from the U.S. Compact, should be added to it.

Why it is needed

The current first drafts of the Compact and the Regional Agreement were not consistent on the ability of other jurisdictions to review proposed changes to the Chicago Diversion. The U.S. Compact states that the existing Supreme Court Decree Wisconsin et al v. Illinois et al is not subject to regional or jurisdictional review in the U.S. It goes on to state that, if there is an application for an increase of the Chicago diversion, the signatories of the U.S. Compact who will also be party to the decree will use their best efforts to represent and air the Province's concerns. It also commits to facilitate and not impede participation of the Provinces. However, it has **not** included a definition of hydrologic units.

The Regional Agreement also recognizes that Wisconsin et al v. Illinois et al is not subject to regional or jurisdictional review but is silent on future requests for increases in the Chicago Diversion. Presumably, this was because negotiators were still hoping to reach consensus on the inclusion of the definition of hydrological units consistently in both Agreements. This definition could open the door to intervention in the U.S. courts for Ontario to argue that impacts to Lake Michigan will also be impacts to Lake Huron. Recently, a North Dakota court allowed Manitoba to be a party in the Devil's Lake dispute because the proposal might put Manitoba's water resources at risk.

For these Annex Agreements to be effective in the future, they need to embrace sound science. The fact that the two middle Lakes, Michigan and Huron, are one hydrologic unit is indisputable because they are linked at the Straits of Maitinac. The similarities have been evident recently when the two lakes experienced similar responses to climatic conditions in 1998-99 with the same drops in water levels of 57cm (22 inches) in twelve months. This is a clear example of the need for adaptive management in the Great Lakes. Political boundaries may sometimes need to take a back seat to natural boundaries in the interest of improved water management, understanding and sustainability.

Late in the negotiations the State of Illinois asked for an exemption from some of the Annex provisions to allow them to control **all** of their State withdrawals from the Great Lakes through the Supreme Court Decree. At this point in time it is difficult to know what this request will mean in additional withdrawals and what it might mean in the future as Chicago grows. CELA research found that in 1995, the City of Chicago supplied more than one billion gallons a day to 5,050,000 people over an 836 square mile area that included 118 suburban communities. 32% of the water pumped by the City of Chicago then went to suburban communities.

At this time it is not known if this exemption request was integrated into the next Annex drafts or which Annex conditions Illinois wishes to opt out of and what terms they would still participate in. Because the next drafts of the Agreements will contain a prohibition on all other diversions, Chicago is now the only location for a future diversion from the Great Lakes. The Canadian Provinces will need to carefully assess the full implications of this request. They should be careful that granting this request would not rule out future alternatives to the Chicago Diversion.

Requirement

Future increases to the Chicago Diversion should be subject to regional review. Both agreements must contain the following definition of hydrological unit "For the purposes of determining whether a withdrawal proposal is a new or increased diversion, the Lake Michigan and Lake Huron watersheds are considered to be one hydrologic unit".

The State of Illinois should be required to quantify the increased volumes they want excluded from Annex scrutiny and should place limits on future withdrawals

Fundamentals of the Annex - What will make the Agreements endure?

5.0 The Precautionary Principle

After the Annex negotiations got underway, the Great Lakes Commission undertook a major evaluation of the state of water management in the Great Lakes. The outcome of this evaluation was released in a report in May 2003, *Toward a Water Resources Management Decision Support System for the Great Lakes-St. Lawrence River Basin*. One of their most significant findings was that science on water quantity in the Great Lakes has focused on the hydrology of levels and flows. However, very little can be said with scientific certainty about the impacts of those levels and flows on the ecology, health and integrity of the ecosystem. Uncertainty is only likely to grow as the ecosystem experiences more extreme weather events and other impacts from climate change and impacts that will result from cumulative use.

What is needed

The two Federal governments stated in their reference to the IJC on February 10, 1999, that they were concerned "that the current management principles and conservation measures may be inadequate to ensure the future sustainable use of our shared waters". In order to guide future water management actions to achieve sustainability, we need to enshrine the precautionary principle as a fundamental force in the preamble to both Annex Agreements.

The Decision Making Standard already involves measures that are implicitly precautionary, such as return flow, conservation and improvement, although they are not explicitly identified as precautionary.

Why it is needed

The parties to the Annex will need to make future determinations on the grounds of precaution. CELA has determined that the precautionary principle should be applied wherever a decision to address uncertainty may serve to eliminate or reduce a hazard. It should be applied both in preventing harm and in restoring ecological health damaged by past or ongoing harm.*

Without precaution, resource scarcity and conflicts among water users will develop.

Requirement

Both Annex Agreements must commit to the precautionary principle in their preambles as the foundation for future action. This will give us the tools to prevent increased risks to the Great Lakes and St. Lawrence ecosystems.

*(<http://cela.ca/uploads/f8e04c51a8e04041f6f7faa046b03a7c/419precautionary.pdf>)

5.1 The Public Trust Doctrine - Will the Annex protect the interest of the commons?

During the consultations on the Annex, there were submissions recommending that the public trust doctrine be inserted into the Agreements. This doctrine, which can be traced back to the Roman Emperor Justinian, centers on the principle that sovereign states should hold essential resources (the commons) in trust for the people. This doctrine has evolved historically to apply to the shoreline of oceans, lakes and rivers, to access to the water for navigation and for recreational uses.

Indications are that it is evolving further, as public concerns grow about water privatization and scarcity, to extend to the water itself and to lands that lie under water. The doctrine has the potential to guide large resource management initiatives like the Annex by ensuring that even owners of private property have their property rights circumscribed by the need to protect the interests of the commons "in trust". As well, the use of the public trust could be a very valuable tool to achieve another important goal -- the goal of intergenerational equity.

What is needed

Both Annex Agreements should acknowledge the public trust doctrine and its applicability to future water resource management. At the very least, both Agreements should state that it is not the intent of the signatories for the Annex to be in conflict with, or negate, the use of the public trust doctrine.

Why it is needed

The last several decades has seen the entry of the private sector into water management and the provision of water and wastewater services. Previously, these functions were the domain of the public sector. A great deal of public concern has coalesced into global movements to keep essential water services from being privatized for profit. This shift has come at a time when governments have realized that water services should no longer be universally subsidized and need to become self-sustaining. A huge amount of capital is needed to provide freshwater to the world in sustainable ways.

Assumptions are already being made by companies, such as the Texas-based company, WaterBank (www.waterbank.com), that water rights can be bought and sold on the internet. Their current listings include a bulk water sale available in Quebec even though a moratorium exists in that province. These corporate assumptions are challenging the public trust doctrine.

Many governments are choosing public/private solutions to water supply. These arrangements blur the distinctions between the regulator and the regulated. These relationships have implications for resource management as responsibilities shift from governments to the corporate sector that is affected by the fickleness and volatility of the marketplace. In this economic and regulatory climate, enduring doctrines like the public trust will become increasingly important.

Requirements

The doctrine of the public trust should be enshrined in both Annex Agreements. Both Agreements should also state that their terms would not supersede or diminish the public trust doctrine.

Summary of Recommendations

Governance

The Annex should remain as two agreements as long as both agreements commit to a consistent, equitable legally binding standard with respect to water protection. There should be equitable public access and rights in both Agreements. Language describing obligations needs to be consistent in the Compact and the Regional Agreement. Quebec and Ontario should commit in the Regional Agreement to making the Annex legally binding by adopting its provisions into their provincial water laws.

Ecosystem Protection

The Annex needs to be ecosystemic by covering all of the components of the Great Lakes watershed.

The full implications of changing the watershed boundaries of the Great Lakes to include groundwater connected to the Lakes have not been fully explored. First, these ground water boundaries need to be mapped and the stability, quality and recharge of groundwater need to be evaluated. Until this is done, no decisions should be made to extend the watershed boundaries. This said, these studies should be conducted soon to be fair to nearby communities. The Annex should specify a time frame of five years for their completion and a review of this issue.

Intrabasin diversions should continue to be treated the same as diversions in the Annex as they result in the same harm.

Communities currently straddling the Basin should be included in the watershed in the Annex. However, some special conditions should be applied to these communities to limit future sprawl, amalgamation and annexation that would change the present boundaries of those communities.

Consistency with other Agreements and Laws

Annex 2001 must be protective of all parts of the Basin ecosystem and resources by explicitly stating that the Annex Agreements are not in conflict with other Treaties, Agreements and Acts that protect the ecosystem, such as the Boundary Waters Treaty of 1909. The Agreements should make it clear that domestic laws and policies containing stronger protections cannot be weakened by the Annex.

At the same time, both the Annex Compact and the Regional Agreement should explicitly encourage higher standards of protection such as those now in place in jurisdictions like Ontario, and they should provide for raising the standards in the future.

Trade Implications

We think strong Annex Agreements, once implemented, could be an insurance policy against future trade uncertainties. By putting a strong resource protection regime in place grounded in legally binding decision making standards, the Annex Agreements will ensure requests for water will be made to, and adjudicated by, Great Lakes

jurisdictions by their rules. This is a far better prospect than a trade tribunal hearing the same request.

Particular attention should be paid to making the Agreements non-discriminatory and even-handed to avoid future challenges. Other provisions such as return flow, improvement and conservation are central to establish that we are actively doing all we can to prevent harm to the Basin and to set a high bar for those considering water export to clear.

Trigger levels

Annex 2001 should require a regional review of all proposed withdrawals of 1 million gallons averaged over 30 days or 3.8 million litres for diversions, consumptive uses or withdrawals that are a combination of both. Initially, all data on withdrawals should commence use at the 13,800 and 10,000 gallon per day range (50,000 and 38,000 litre range), and should be submitted to a central database immediately as part of each jurisdiction's reporting requirements under Annex 2001. The Annex should provide for annual reviews of the adequacy of trigger levels to protect the integrity of the Great Lakes and St. Lawrence River ecosystem.

Diversions

CELA supports, and has always supported, the most restrictive prohibition possible to exclude all harmful diversions.

Regardless of whether a prohibition on use of the waters of the Great Lakes is achieved, we still need a common set of standards to protect the environment of the Great Lakes from future challenges and to manage our own use of the waters.

Annex 2001 must allow jurisdictions to deny future withdrawal requests if they do not meet the decision-making standards. In essence, the decision making standards will spell out the rules of engagement for future water requests. Several of these standards in the current drafts need strengthening (see Sections on return flow, conservation and improvement). The next draft of the Agreements should continue to require all standards be met.

Consumptive Use

The Annex should treat consumptive use the same as out of basin diversions and subject them both to the same decision making standards and trigger levels. The U.S. Compact would be stronger if it required unanimity to approve a large consumptive use. This equal treatment would move us faster down the path of efficient water use in the Basin.

Annex 2001 must demand best practices for water management from every sector in every jurisdiction. It must prescribe consumption goals and limits across the Basin by sector, or commit to a time in the near future when best practices for each sector will be defined in the agreements. It should assign the responsibility to determine sector by sector consumptive use co-efficients. It is understood that these goals will be strengthened in the coming years to become more restrictive of consumptive uses. Consumptive use and large withdrawals should be subject to regional review in the same way as diversions are.

Cumulative Use

Annex 2001 must result in data collection that has scientific rigor and can support decision making on future Great Lakes water withdrawals. Over time, best efforts should be made to collect water data on all use in the Basin so that we understand our cumulative use and establish a baseline. One area where jurisdictions could volunteer to begin to implement Annex protections before the Agreements are approved is in the collection of cumulative water use data.

Implementation Timetable

Annex 2001 must commit to implementation within 3 to 5 years of being signed. Consideration should be given to putting in place now a moratorium on large withdrawals until the Annex Agreements are implemented.

There is one long overdue promise from the Great Lakes Charter that should also be acted on now. This is the development of a Basin Water Resources Program. Several Annex issues still will need more development prior to Annex implementation. The work on these issues should commence right away and should be integrated into this program development.

The Need for Data

Annex 2001 must commit to an improved and expanded system of data collection and management wherein data is collected on all withdrawals by all sectors of users of both ground and surface water. Commitments must be made to collect this data at more micro-levels already achieved by Minnesota and Ontario to better inform future understanding of cumulative use.

Data should be collected on conservation. Serious efforts should be made on demand forecasting, particularly as it could relate to climate change. Efforts should be made to identify water wastage in all sectors. Averaging of data should be discontinued because it is not useful. Data gathering efforts need not wait for Annex Agreement approvals. They should begin immediately in jurisdictions such as Michigan that lags far behind other jurisdictions in gathering information on their use of the resource.

The provisions, set out in Section 4A of the Decision Making Standard Procedures Manual, require each jurisdiction to submit their water management system to regional review. Once this review is complete, a declaration of findings on whether the system is consistent with the Charter will be issued from all other Great Lakes jurisdictions. This requirement should be implemented immediately. This provision should be an annual requirement until there is uniform water management in the Great Lakes.

Averaging

Annex 2001 must clearly commit to, and support, a system of 30-day averaging of water withdrawals for agriculture and for every other sector.

Dealing with our Neighbors

Special additional conditions will need to be in place if straddling communities and neighboring counties are included as part of the Great Lakes Basin. All conditions of

the Annex must apply to these communities and their growth in the future should trigger evaluation of whether new municipal areas would receive water from the Basin.

Inclusion of these exceptions should not come without stricter conditions and provisions to review exemptions in the future including provisions to withdraw exclusions, and eliminate the inclusion of bordering communities and counties altogether.

Additional efforts are needed to integrate Great Lakes municipalities into the Annex, particularly as it pertains to public water supplies. The next draft of the Annex Agreements should include mechanisms to do this.

Tribes and First Nations

First Nations and Tribes must be involved in the decision-making, support and management of the Great Lakes on a government-to-government basis in the Annex and as set out in their Tribal and First Nations Great Lakes Water Accord.

Multinationalism

Basin wide management of the Great Lakes requires a new era of Basin-wide cooperation and coordination. The new draft of the Annex must delineate the scope of the Annex and its relationship to other Federal laws and Treaties to ensure that they are complementary and not in conflict.

Public Participation

Annex 2001 must restate its commitment to a management regime that encourages public participation at every level, including regional review of diversion proposals. Citizens in both countries should have the same rights to participate in Annex decision-making both at the local and regional review level. Uniform language describing these rights needs to be in both Agreements. Information on Annex decisions should be centralized on one web site so all Great Lakes residents have the same access. The public has been critical of the amount of time allowed for comment on Annex drafts. Notice for public comment and interventions on further Annex decisions should be adequate.

Decision Making Standards

A set of strong decision making standards is needed to apply to all large harmful withdrawals from the Great Lakes watershed in the future. As we stressed in our discussion on trigger levels, it would be an advantage to have the same standards apply to in-basin and out of basin requests because they both have the potential to result in identical harm. For this reason, we would support the inclusion of the improvement standard to consumptive uses with some conditions (See Section 4.1 for details on those conditions).

The U.S. Compact paraphrases the Decision Making Standards in Appendix 1 of the Regional Agreement. The language in the compact and the terminology describing these standards should be consistent to avoid misinterpretation and misunderstanding in the future.

Improvement

The next draft of the Annex should oblige the jurisdictions to develop a Great Lakes Improvement Plan (as part of the long overdue Basin Water Resources Management Plan) within the next years so the plan will be ready before the Annex is implemented. Both Annex Agreements should require Basin jurisdictions to be leaders in designing and regularly updating that plan.

The Improvement Standard should also apply to consumptive use. Such an improvement standard that is publicly debated and meaningful to people at the operational level could be one of the most prescient requirements of the Annex Agreements. The public should be involved in the development of such a Plan.

Improvements in the Plan should be limited to hydrologic improvements to the levels and flows and fluctuation of the system so that they do not intrude on other obligations set out under the Great Lakes Water Quality Agreement and other programs.

Further language is needed in the Annex to ensure that improvements are not construed to be tradable for water rights.

Conservation

Clearly specified measures for conservation are needed in both Annex agreements and an overall conservation plan for the Basin. Basin-wide targets and targets within each jurisdiction should be set for every sector. An initial target to reduce overall consumption by 25% by 2015 must be advocated and pursued. This would bring our region's use to current levels of use in the European Union.

All Great Lakes jurisdictions should adopt Annex conservation goals and targets in their implementing legislation. Annual reporting on progress on conservation should be required by the next annex agreements.

Return flow

A more precise return flow definition is needed because the definition is leading to water takings that are too far removed from the original intent of the definition. Return flow must mean return to the point of taking (i.e. the same water body or source water system) unaltered or restored to same quality. 100% of the water withdrawn should be returned less an allowance for consumptive use.

The definition should specify that there should be no mixing of the water withdrawn from the Great Lakes with water from other sources in order to prevent the introduction of invasive species or other threats. Explicit language requiring that no replacement water from other watersheds will be permitted should be added to the Annex to avoid harm from invasive species as well as harm to those watersheds.

The Chicago Diversion

Future increases to the Chicago Diversion should be subject to regional review. Both agreements must contain a definition of hydrological unit "For the purposes of determining whether a withdrawal proposal is a new or increased diversion, the Lake Michigan and Lake Huron watersheds are considered to be one hydrologic unit".

The State of Illinois should be required to quantify the increased volumes they want excluded from Annex scrutiny and should place limits on future withdrawals

Precautionary Principle

Both Annex Agreements must commit to the precautionary principle in their preambles as the foundation for future action. This will give us the tools to prevent increased risks to the Great Lakes and St. Lawrence ecosystems.

Public Trust Doctrine

The doctrine of the public trust should be enshrined in both Annex Agreements. Both Agreements should also state that their terms would not supersede or diminish the public trust doctrine.

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## **What will the legacy of the Great Lakes Annex be?**

Logic and wisdom are in short supply in water management in North America in the 20<sup>th</sup> century. Short-term need has trumped long term planning. Illogically, the water wealthy Great Lakes Region continues to loose population, wealth and power to the water short U.S. southwest. Southwest residents in denial demand their pools and fountains and water intensive agriculture and businesses and the water subsidies central to their lives. Trend analysis shows that this recipe for disaster will continue to grow. The questions lurking under the Annex negotiating table are ~ Would a water crisis in North America from a prolonged drought or climate change escalation reverse the fortunes of the Region? Will the Great Lakes have the tools to manage the rush to water that might suddenly occur and the increased demands within the Basin to supply food and products to the rest of the continent? Will there no longer be unsustainable proposals to move water to anywhere there is a shortage? Will growth ever be limited by water supply in North America?

### **With a Strong Annex Agreement...**

Strong agreements now could over time transform water management in the Great Lakes Region. They would create more security for future generations of residents as well as protection and improvement of the fragile ecosystem of the Great Lakes and all life dependent on its rich water resources. These Agreements could encourage the economy of the Basin to grow and thrive. They could reverse the trend of population and production loss to the southwest in the U.S. one-day. Better management and conservation of Great Lake waters could result in more water remaining in the system. This would create more resiliency for the ecosystem to rebound from the impacts of climate change and other stresses predicted for our region. Close examination of our own use and demands and ability to bring our high water overuse and waste down to the more prudent levels of the European Union nations could reap many rewards. Our region's leadership will encourage others to make greater efforts to live within their water budgets. Conflicts among users within our region will be avoided. Others will respect and replicate our collective transboundary efforts to protect, improve and restore one fifth of the world's fresh water. As we learn more about the impacts of our cumulative use and the impacts of large water withdrawals we will be able to adjust our policies and practices to avoid and prevent crises and conflicts. It will take time for these ambitious efforts to bear fruit. A lag time of a further 15 years until the Agreements are implemented will put water sustainability at risk in the Great Lakes and St. Lawrence River ecosystem.

### **Without a Strong Annex Agreement...**

A weak Agreement will delay or continue to defer making environmental protection central to large water allocation decisions in the Basin. Already there are implications that some jurisdictions are trying to avoid the original intent of the 2001 Annex Agreement. The flurry of last minute conditions and exceptions that were proposed late in the process show a weakening of resolve. Regrettably, the Annex will mean more work and expense for the jurisdictions that failed to put improved water management in place following the Great Lakes Charter. These jurisdictions still lack tools to regulate water disputes. As negotiations neared completion potential disputes have begun to surface within these jurisdictions. The Annex Agreements give these

jurisdictions the tools to catch up with the other Basin jurisdictions with environmental protection laws in place. These have resulted in a greater understanding of water use, stresses on water and tools for dispute resolution among users. CELA will be evaluating the special conditions placed on the exclusions to insure they give additional protection to the Great Lakes and do not necessarily promote growth and sprawl that is unsustainable.

Much of the devil will be in the details of the agreements and their implementation. CELA will be looking for equitable rights for all jurisdictions in future decision-making and for public access to information and the process. We already know that we will not be getting uniform water regulations across the jurisdictions of the Great Lakes. Some jurisdictions will continue to collect less data that is restricted to larger volumes. While we can hope they will embrace stricter measures over time, it will remain for the jurisdictions like Ontario and Minnesota to persuade others to strengthen their standards.

Keeping to the task of approving the Agreement will be a huge challenge if as many predict, it could take a decade or longer to be in force. How much damage will be done in the interim if proposals continue to be approved on political grounds? Will there be a rush of proposals before the new Annex rules come into force? If this is the case just how much more will we compromise the integrity of the Great Lakes Ecosystem?

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APPENDIX I - WHAT THE ANNEX 2001 AGREEMENT PROMISED

A supplementary agreement to the Great Lakes Charter, June 18, 2001

FINDINGS

The Great Lakes are a bi-national public treasure and are held in trust by the Great Lakes States and Provinces. For the last sixteen years, the Great Lakes Governors and Premiers have followed a set of principles to guide them in developing, maintaining, and strengthening the regional management regime for the Great Lakes ecosystem. Protecting, conserving, restoring, and improving the Great Lakes is the foundation for the legal standard upon which decisions concerning water resource management should be based.

There has been significant progress in restoring and improving the health of the ecosystem of the Great Lakes Basin. However, the Waters and Water-Dependent Natural Resources of the Basin remain at risk of damage from pollution, environmental disruptions, and unsustainable water resource management practices that may individually and cumulatively alter the hydrology of the Great Lakes ecosystem.

PURPOSE

In agreeing to this Annex, the Great Lakes Governors and Premiers reaffirm their commitment to the five broad principles set forth in the Great Lakes Charter, and further reaffirm that the provisions of the Charter will continue in full force and effect. The Governors and Premiers commit to further implementing the principles of the Charter by developing an enhanced water management system that is simple, durable, efficient, retains and respects authority within the Basin, and, most importantly, protects, conserves, restores, and improves the Waters and Water-Dependent Natural Resources of the Great Lakes Basin.

State and Provincial authorities should be permanent, enforceable, and consistent with their respective applicable state, provincial, federal, and international laws and treaties. To that end, and in order to adequately protect the water resources of the Great Lakes and the Great Lakes ecosystem, the Governors and Premiers commit to develop and implement a new common, resource-based conservation standard and apply it to new water withdrawal proposals from the Waters of the Great Lakes Basin. The standard will also address proposed increases to existing water withdrawals and existing water withdrawal capacity from the Waters of the Great Lakes Basin.

DIRECTIVES

The Governors and Premiers put forward the following DIRECTIVES to further

the principles of the Charter.

DIRECTIVE #1

Develop a new set of binding agreement(s).

The Governors and Premiers agree to immediately prepare a Basin-wide binding agreement(s), such as an interstate compact and such other agreements, protocols or other arrangements between the States and Provinces as may be necessary to create the binding agreement(s) within three years of the effective date of the Annex. The purpose of the agreement(s) will be to further the Governors' and Premiers' objective to protect, conserve, restore, improve, and manage use of the Waters and Water-Dependent Natural Resources of the Great Lakes Basin. The agreement(s) will retain authority over the management of the Waters of the Great Lakes Basin and enhance and build upon the existing structure and collective management efforts of the various governmental organizations within the Great Lakes Basin.

DIRECTIVE #2

Develop a broad-based public participation program .

The Governors and Premiers commit to continue a process that ensures ongoing public input in the preparation and implementation of the binding agreement(s) called for in this Annex. Included in this process will be periodic progress reports to the public.

DIRECTIVE #3

Establish a new decision making standard.

The new set of binding agreement(s) will establish a decision making standard that the States and Provinces will utilize to review new proposals to withdraw water from the Great Lakes Basin as well as proposals to increase existing water withdrawals or existing water withdrawal capacity.

The new standard shall be based upon the following principles:

Preventing or minimizing Basin water loss through return flow and implementation of environmentally sound and economically feasible water conservation measures; and

No significant adverse individual or cumulative impacts to the quantity or quality of the Waters and Water-Dependent Natural Resources of the Great Lakes Basin; and

An Improvement to the Waters and Water-Dependent Natural Resources of the Great Lakes Basin; and

Compliance with the applicable state, provincial, federal, and international laws and treaties.

DIRECTIVE #4

Project review under the Water Resources Development Act of 1986, §1109, 42 U.S.C. §1962d-20 (1986) (amended 2000).

Pending finalization of the agreement(s) as outlined in Directive #1, the Governors of the Great Lakes States will notify and consult with the Premiers

of Ontario and Quebec on all proposals subject to the U.S. Water Resources Development Act of 1986, §1109, 42 U.S.C. §1962d-20 (1986) (amended 2000) (WRDA), utilizing the prior notice and consultation process established in the Charter. In doing so, the Governors and Premiers recognize that the Canadian Provinces are not subject to, or bound by, the WRDA, nor are the Governors statutorily bound by comments from the Premiers on projects subject to the WRDA.

DIRECTIVE #5

Develop a decision support system that ensures the best available information. The Governors and Premiers call for the design of an information gathering system to be developed by the States and Provinces, with support from appropriate federal government agencies, to implement the Charter, this Annex, and any new agreement(s). This design will include an assessment of available information and existing systems, a complete update of data on existing water uses, an identification of needs, provisions for a better understanding of the role of groundwater, and a plan to implement the ongoing support system.

DIRECTIVE #6

Further commitments.

The Governors and Premiers of the Great Lakes States and Provinces further commit to coordinate the implementation and monitoring of the Charter and this Annex; seek and implement, where necessary, legislation establishing programs to manage and regulate new or increased withdrawals of Waters of the Great Lakes Basin; conduct a planning process for protecting, conserving, restoring, and improving the Waters and Water-Dependent Natural Resources of the Great Lakes Basin; and identify and implement effective mechanisms for decision making and dispute resolution. The Governors and Premiers also commit to develop guidelines regarding the implementation of mutually agreed upon measures to promote the efficient use and conservation of the Waters of the Great Lakes Basin within their jurisdictions and develop a mechanism by which individual and cumulative impacts of water withdrawals will be assessed. Further, the Governors and Premiers commit to improve the sources and applications of scientific information regarding the Waters of the Great Lakes Basin and the impacts of the withdrawals from various locations and water sources on the ecosystem, and better understand the role of groundwater in the Great Lakes Basin by coordinating their data gathering and analysis efforts. Finally, the Governors and Premiers commit to develop in the new binding agreement(s) the water withdrawal rates at which regional evaluations are conducted and criteria to assist in further defining acceptable measures of Improvement to the Waters and Water-Dependent Natural Resources of the Great Lakes Basin.

FINAL PROVISIONS

This Annex shall come into force on the day that all signatures are executed.

The Parties have signed the present agreement in duplicate, in English and French, both texts being equally authentic.

DEFINITIONS

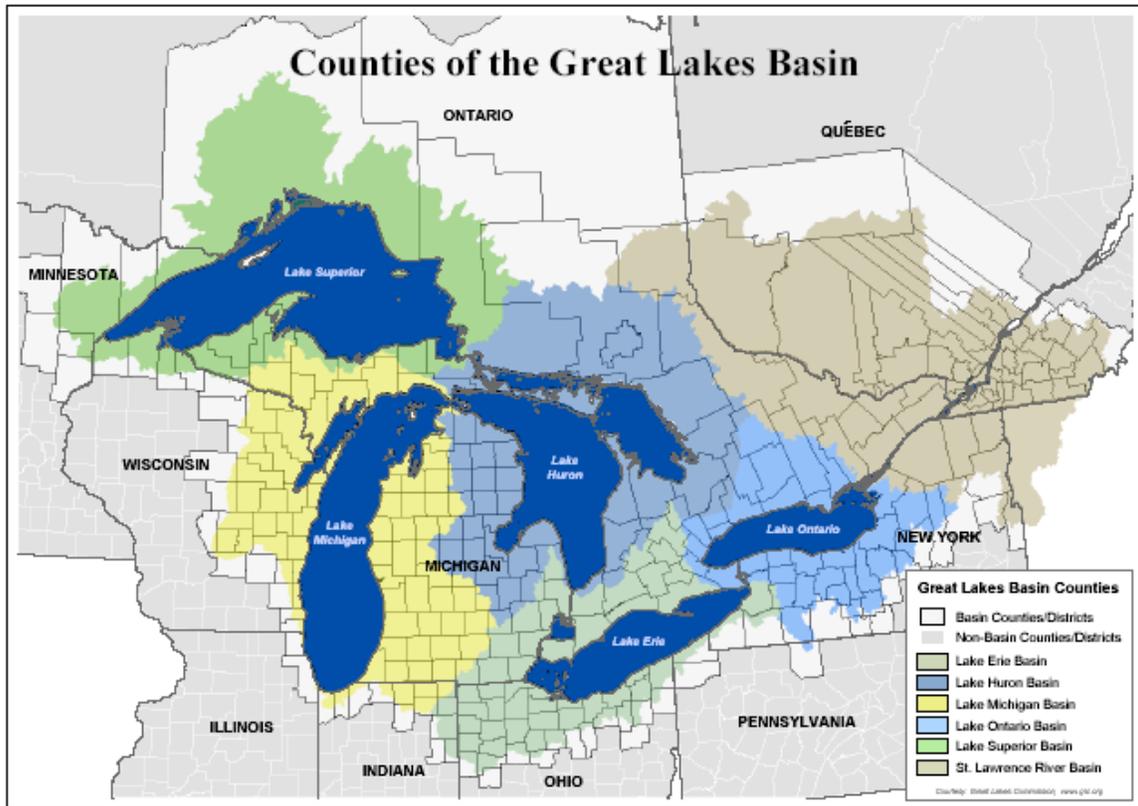
Waters of the Great Lakes Basin (also termed in the Great Lakes Charter as "Water Resources of the Great Lakes Basin") means the Great Lakes and all streams, rivers, lakes, connecting channels, and other bodies of water, including tributary groundwater, within the Great Lakes Basin.

Water-Dependent Natural Resources means the interacting components of land, water, and living organisms affected by the Waters of the Great Lakes Basin.

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.

Signed and entered into the 18th day of June 2001.
8 Great Lakes Governors and 2 Premiers

APPENDIX 2 - MAP OF THE WATERSHEDS OF THE GREAT LAKES BASIN



APPENDIX 3 - GREAT LAKES JURISDICTIONS IN-BASIN WATER LAW SUMMARY

February 2005

Jurisdiction	Conservation	Registration	Permit	Public comment
Illinois	Lake Michigan water withdrawers (max 8% "unaccounted for flow")	(via permits)	Lake Michigan surface water allocations	hearings
Indiana	during drought	>100,000 gpd	groundwater >100,000 in "restricted use areas"	no
Michigan	no	public supply non-ag >100,000 gpd	no	no; impacted well owners can appeal decisions
Minnesota	permit condition: "least possible use"	(via permits)	>10,000 gpd or >1 mgd	local government comment
New York	public supply "goal": lose <15%	>100,000 gpd	public supply	comment
Ohio	during drought	>100,000 gpd	>2 mgd consumptive use	no
Ontario	in building codes, planning laws	(via permits)	>50,000 lpd	appeal decisions
Pennsylvania	during drought	>10,000 gpd	surface withdrawal public supply	comment
Quebec	no	(via permits)	public supply	local government comment
Wisconsin	basically no	>100,000 gpd	groundwater >100,000 gpd	no

Sources:

Toward a Water Resources Water Management Decision Support System for the Great Lakes - St. Lawrence River Basin, Great Lakes Commission, 2003
 National Wildlife Federation, "Great Lakes States' Comparisons," 2003?
 Updates by jurisdiction environmental organizations, February 2005