



CANADIAN ENVIRONMENTAL LAW ASSOCIATION  
*L'ASSOCIATION CANADIENNE DU DROIT DE L'ENVIRONNEMENT*

October 5, 2007

Paula Thompson  
Senior Policy Advisor  
Ministry of Natural Resources  
Water Resources Section  
300 Water Street  
PO BOX 7000  
Peterborough, Ontario  
K9J 6M5

Dear Paula,

**Re: Great Lakes – St. Lawrence River Basin Water Conservation and Efficiency Initiative**

***Draft Regional Water Conservation and Efficiency Objectives (EBR Registry # 010-1447)***

The Canadian Environmental Law Association (CELA) and Great Lakes United (GLU) take this opportunity to reiterate our position on the Great Lakes – St. Lawrence River Basin Water Conservation and Efficiency Initiative Draft Regional Water Conservation and Efficiency Objectives. As you know, both organisations were involved in the Advisory Panel to the Regional Body convened to help frame the conservation objectives by the Council of Great Lakes Governors.

At this juncture in time it is difficult for us to separate the political landscape from the practical needs for these objectives. It is our observation that efforts to keep these objectives vague feed into the active campaigns in the US to weaken commitments to the Compact and the International Agreement. The State of Wisconsin, which could benefit the most from increased water resources that aggressive water conservation could bring, is experiencing strong opposition to the Compact from areas where water crises have already developed.

We remain concerned that the US Compact, the vehicle that the US States are seeking to pass into law, contains no explicit commitments to conservation. While the International Agreement contains requirements for the conservation

objectives, these may not be seen by the States as binding. It is ironic that the first Draft of the Agreement released to the public included an implementation manual that contained a detailed prescriptive outline of conservation. This disappeared and has been replaced by the current proposed non-detailed conservation proposal. Without detailed criteria on what constitutes adequate water conservation, the Parties will be challenged to evaluate proposals that fall under provisions of the Agreement and proposals for exceptions. For these reasons we feel that Ontario should once again show leadership by advocating for a more prescriptive conservation guideline that includes timetables and targets with the other jurisdictions.

This is why we also recommend that the Province commit to completing a much more progressive conservation policy within the next few years that would raise the bar for the other jurisdictions in the Great Lakes.

A conservation policy for this province is long overdue. Both of our organizations were involved in the early 1990s in the Ontario Water Efficiency Strategy, a lengthy exercise that did not lead to any policy changes. Had it been put in place we may have avoided some of the water conflicts and shortages we are now facing in the Province. Without the tools to require conservation as the preferred option, we will continue to see crises building as Ontario communities abandon their groundwater for Great Lakes surface water to achieve growth goals and new controversial plans for pipelines that will lead to intra-basin diversions.

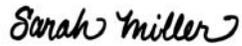
Conservation strategies for Ontario should not be limited to water in the pipes, but should also apply to water management practices on the land and in watersheds. We applaud the initiative of the Great Lakes and St. Lawrence City Initiative (attached as Appendix One) in their earlier submission on the Conservation Framework and their suggestion of a goal of a 15% reduction in water use by all sectors by 2015. We also endorse their recommendation that "Explicitly stating the link between water conservation and efforts to address climate change helps demonstrate the broad range of benefits that can be realized through achievement of the objectives". We agree that municipalities should be partners in planning conservation. Their participation should be encouraged and enabled. A comprehensive conservation plan should establish best practices for all sectors of water users.

CELA and GLU have already submitted comments on earlier drafts of this policy that were widely endorsed by 64 ENGOs throughout the ecosystem. These comments had very little impact on the current draft. We are resubmitting those comments to you for your consideration once again (attached as Appendix Two). The comments outline how these groups feel a more detailed conservation plan could advance and integrate work immediately on the science agenda and other gaps that the Agreement has determined need development for our full

understanding of sustainable use of the waters of the Great Lakes and St. Lawrence River.

Please feel you can contact us to discuss our submissions.

Yours truly,



Sarah Miller  
Coordinator and Researcher  
Canadian Environmental Law Association

[CELA publication #594](#)



John Jackson  
Clean Production &  
Toxics Campaign Coordinator  
Great Lakes United



## APPENDIX 1

### **Great Lakes and St. Lawrence Cities Initiative Comments on the *Great Lakes – St. Lawrence River Basin Water Conservation and Efficiency Initiative***

The Great Lakes and St. Lawrence Cities Initiative (“GLSLCI”) is a bi-national coalition of mayors and other local officials actively working to protect and restore the Great Lakes and St. Lawrence River. GLSLCI focuses its work around three important areas for municipalities: water conservation, water quality and waterfront vitality. Cities and communities are uniquely positioned to have a positive impact on the Lakes and the St. Lawrence River and GLSLCI helps mayors and other local officials ensure this occurs.

GLSLCI was an active participant in the development of the Great Lakes – St. Lawrence River Basin Sustainable Water Resources Agreement and Compact and continues to commend the Governors and Premiers of the Great Lakes states and provinces, through the Council of the Great Lakes Governors, for their leadership on this vital endeavor.

As efforts to implement recommendations from the Agreement are underway, the commitment of Great Lake and St. Lawrence stakeholders to the Regional Collaboration becomes vital. The Governors and Premiers of the Great Lakes states and provinces have worked diligently to develop the regional water conservation and efficiency objectives called for in Article 304(1) of the Agreement. GLSLCI recognizes that, as with any collaborative effort, it is challenging to bring together a number of stakeholders and agree upon one course of action. The work of the Governors and Premiers around a collaborative water conservation and efficiency effort is recognized and appreciated.

While these objectives provide a good foundation for water conservation within the Basin, GLSLCI maintains, as it has throughout the Regional Collaboration process, that more rigorous conservation programs and measures must be implemented around the Basin. Though the objectives are intended to inform the development of individual state and provincial water conservation and efficiency goals and objectives, more focused and committed objectives at this stage will ensure successful programs around the Basin in the future.

The Great Lakes – St. Lawrence River Basin Water Conservation and Efficiency Initiative objectives would be improved with a greater focus on target reductions, milestones and timeframes, as well as encouragement around state and provincial governments introducing measures that will help municipalities reach their water conservation goals. Additionally, the objectives should place a greater emphasis on water conservation, given the importance of the resource, and may even be strengthened by

177 North State Street, Suite 500, Chicago, Illinois 60601 ~ (312) 201-4516 phone ~ (312) 553-4355  
fax

[www.glslicities.org](http://www.glslicities.org)

*David Miller, Mayor of Toronto, Chair*

*Richard M. Daley, Mayor of Chicago, Founding Chair*



explicitly making a link between water conservation and efforts to combat climate change. Finally, GLSLCI recognizes the inclusion of best practices sharing within the objectives as a vital element that will help bolster the effort.

### **Include Target Reductions, Milestones, and Timeframes**

The Great Lakes – St. Lawrence River Basin Water Conservation and Efficiency Initiative objectives could be strengthened with more focused targets, milestones and timeframes. While the objectives provide a good framework for states and provinces to develop their own specific programs, the fact that the effort is voluntary and there are no benchmarks by which to gauge success and participation weakens the effort. Without concrete targets or timeframes it will be difficult to push for participation and prompt implementation.

### **Encourage State and Provincial Support of Municipalities**

The objectives should also encourage state and provincial governments to work with municipalities to introduce measures that will directly help municipalities reach their water conservation goals. Examples of this could include a ban on low flow toilets or financial support for water loss reductions due to replacement of aging pipes. The region will be more successful in conserving water if various levels of government work together and support one another towards this endeavor.

### **Water Conservation vs. Efficiency**

One percent of Great Lakes and St. Lawrence River water is renewed each year while greater and greater quantities are used each year. For this reason, the Basin needs to focus on water conservation. Efficient use of the resource is important and can help to lessen the impact citizens and industries have on the resource. However, to make a tangible difference and to ensure the sustainability of the resource, we must start changing our practices and focusing on conservation. The draft objectives seem to place more emphasis on ‘efficient water use’ rather than water conservation. For instance, the objectives support providing incentives to encourage efficient water use; incentives should also be provided to encourage water conservation. GLSLCI recognizes that in order to make a true difference on the Lakes and the St. Lawrence, all stakeholders must develop new practices and approaches towards water. A focus on conservation is a necessity.

Increasingly, water conservation is discussed within the context of energy conservation and efficiency to combat climate change. The objectives provide an opportunity for states and provinces to demonstrate their awareness around the issue of climate change and their interest in working to combat it. Explicitly stating the link between water conservation and efforts to address climate change helps demonstrate the broad range of benefits that can be realized through achievement of the objectives.

177 North State Street, Suite 500, Chicago, Illinois 60601 ~ (312) 201-4516 phone ~ (312) 553-4355  
fax

[www.gslscities.org](http://www.gslscities.org)

*David Miller, Mayor of Toronto, Chair*

*Richard M. Daley, Mayor of Chicago, Founding Chair*



### **Best Practices Sharing**

To the extent a water conservation practices and programs network or resource hub can be developed, the water conservation and efficiency goals of the Agreement will be better achieved. GLSLCI supports the development of a network for states and provinces to share best practices, technologies and programs to help achieve water conservation and efficiency. The draft objectives are on track regarding best practices sharing and could be enhanced with inclusion of a specific plan and timeframe for implementation of a best practices sharing network or mechanism.

The Great Lakes and St. Lawrence River are the foundation upon which the region is built. Not only do they comprise the premier freshwater system in the world, providing U.S. and Canadian citizens with drinking water, but they support our need for recreation, industry, energy, and natural habitats. The region must band together to ensure these treasures are not squandered. Cities and communities are contributing by developing local water conservation programs and by participating in the GLSLCI Water Conservation Framework. Through the Framework, cities commit to reducing water use within their jurisdictions by 15% by the year 2015. The Framework is focused not only on conserving Great Lakes and St. Lawrence water, but also on best practices sharing so that more cities and communities are exposed to and adopt the best water conservation methods. The development of a target reduction and timeframe for the effort will help to ensure implementation and results from the Framework.

The Governors and Premiers of the Great Lakes states and provinces, through their work on the Regional Collaboration and their efforts to implement the recommendations of the Regional Collaboration are helping to protect and restore the treasures of our region. The draft Great Lakes – St. Lawrence River Basin Water Conservation Efficiency Initiative is a good first step towards water conservation within the region and could be improved by strengthening the objectives with targets and timeframes. GLSLCI is confident that the effort, along with water conservation programs at the local level, will lead to positive results within the region.

## APPENDIX TWO

June 8, 2007

Regional Body

Great Lakes – St. Lawrence River Basin Water Resources Agreement

Dear Regional Body members:

The undersigned organizations appreciate the efforts of the Conservation Committee in preparing a draft of the water conservation and efficiency objectives called for by Article 304 of the Great Lakes – St. Lawrence River Basin Sustainable Water Resources Agreement. Unfortunately, we are seriously disappointed with the outcome of those efforts.

The Conservation Committee has failed to act upon many of the fundamental and structural suggestions made by the Committee's Advisory Panel, even those that found widespread agreement among the disparate interests represented on that panel. We are disappointed to have to submit the following extensive critique of these draft objectives. However, we do so in the hope that the Regional Body and the Conservation Committee will closely review and reconsider the draft objectives and make the improvements we believe are called for by the Agreement.

As outlined in detail below, the draft objectives are much too weak to propel the region toward serious and effective water conservation efforts. We support objectives that allow substantial flexibility as to how individual jurisdictions can achieve them. However, such objectives must ultimately obtain results. We are strongly opposed to the draft objectives because these would allow jurisdictions to give the impression that they are carrying out comprehensive water conservation programs while possibly achieving absolutely no gains or improvement. We urge that the water conservation objectives be rewritten to incorporate assurances that measurable conservation and water efficiency will be achieved in each jurisdiction.

To understand how these objectives should be written, it is necessary to see their role in the larger context of state and provincial water conservation programs. The Agreement requires the provinces and states to develop their individual programs "based on" their own goals and objectives, which in turn must be "consistent with" the Regional Body's objectives. The objectives set out by the Regional Body thus have no direct binding force upon the state and provincial programs. This "advisory" function of the Regional Body's objectives presents the perfect opportunity for the governments across the region to set out ambitious and forward-looking objectives that will give all jurisdictions ultimate targets for which to strive.

The draft objectives do not do this.

The Agreement calls for such a progressive objective-setting approach when it requires that these objectives be based on the following five goals:

1. Ensuring improvement of the waters and water dependent natural resources
2. Protecting and restoring the hydrologic and ecosystem integrity of the Basin
3. Retaining the quantity of surface water and groundwater in the Basin

4. Ensuring sustainable use of waters of the Basin
5. Promoting the efficiency of use and reducing losses and waste of water

These goals embody the overall goals of the Agreement and the ten jurisdictions' commitment to our Great Lakes waters and water-dependent natural resources. By basing water conservation and efficiency objectives on these goals, the Agreement makes clear that water conservation must include the achievement of all of these goals: improvement, protection, sustainability and efficiency. If the Agreement is to be more than stirring words, then the Regional Body's water conservation objectives must guide the provinces and states to accomplish these goals. The objectives should be specific enough, strong enough, and clear enough to let a jurisdiction and its public know if its program is truly working toward conserving water, and if in fact it is succeeding in doing so.

A weak conservation framework in any of the jurisdictions could lead to weakening the decision-making standards (Article 201.2.b.ii. and .c.ii, .3d and .4e) by allowing applicants for withdrawals to argue that weak and vague conservation efforts meet the standard of that jurisdiction.

Furthermore the Agreement provides for a five-year review of each jurisdiction's program's fulfillment of the terms of the Agreement. Without clearly articulated conservation goals and objectives from the outset this review could become relatively meaningless.

Simply put, the Regional Body's draft objectives do not satisfy the Agreement's requirements.

Please see the attached document for our detailed critique of the draft objectives. We welcome further communications with you and the Conservation Committee concerning any of our comments. We thank you for the opportunity to provide these comments and look forward to your release of a greatly improved set of objectives.

Sincerely,

16th Street Community Health Center  
Alliance for the Great Lakes  
American Public Information on the Environment  
Audubon Minnesota  
Blue Mountain Watershed Trust Foundation  
Canadian Environmental Law Association  
Canandaigua Lake Watershed Alliance  
Citizens for Alternatives to Chemical Contamination  
Citizens Campaign for the Environment (New York)  
Citizens Concerned for Michipicoten Bay  
Clean Water Action Alliance (Minnesota)  
Clean Water Action Council of Northeast Wisconsin  
Clean Water Action (Michigan)  
Development Without Destruction

Duluth Audubon Society  
EarthWatch Ohio  
Environmental Advocates of New York  
Environment Illinois  
Environment Michigan  
Friends of Milwaukee's Rivers  
Great Lakes Habitat Network and Fund  
Great Lakes United  
Illinois Environmental Council  
Indiana Wildlife Federation  
Lake Superior Conservancy and Watershed Council  
Land Stewardship Project  
League of Ohio Sportsmen  
Mankato Area Environmentalists  
Michigan Environmental Council  
Michigan Land Use Institute  
Michigan League of Conservation Voters  
Midwest Environmental Advocates  
Milwaukee County Conservation Coalition  
Minnesota Center for Environmental Advocacy  
Minnesota Conservation Federation  
Minnesota COACT  
Minnesota Environmental Partnership  
National Wildlife Federation  
Northern Michigan Environmental Action Council  
Northwoods Wilderness Recovery  
Ohio Environmental Council  
Ohio League of Conservation Voters Education Fund  
Ontario Nature  
POLIS Project on Ecological Governance  
Prairie Rivers Network  
Presque Isle Audubon Society  
Religious Coalition for the Great Lakes  
River Alliance of Wisconsin  
Save the Dunes Council  
Sierra Club (United States)  
Sierra Club of Canada  
Sweetwater Alliance  
Three Lakes Association of Michigan  
Tip of the Mitt Watershed Council  
Western Lake Erie Association  
Wisconsin Great Lakes Coalition  
Wisconsin League of Conservation Voters  
Wisconsin Wetlands Association  
Wisconsin Wildlife Federation

Attachment

**Comments of**

**16th Street Community Health Center  
Alliance for the Great Lakes  
American Public Information on the  
Environment  
Audubon Minnesota  
Blue Mountain Watershed Trust Foundation  
Canadian Environmental Law Association  
Canandaigua Lake Watershed Alliance  
Citizens for Alternatives to Chemical  
Contamination  
Citizens Campaign for the Environment  
Citizens Concerned for Michipicoten Bay  
Clean Water Action Alliance (Minnesota)  
Clean Water Action Council of Northeast  
Wisconsin  
Clean Water Action (Michigan)  
Development Without Destruction  
Duluth Audubon Society  
EarthWatch Ohio  
Environmental Advocates of New York  
Environment Illinois  
Environment Michigan  
Friends of Milwaukee's Rivers  
Great Lakes Habitat Network and Fund  
Great Lakes United  
Illinois Environmental Council  
Indiana Wildlife Federation  
Lake Superior Conservancy and Watershed  
Council  
Land Stewardship Project  
League of Ohio Sportsmen  
Mankato Area Environmentalists  
Michigan Environmental Council**

**Michigan Land Use Institute  
Michigan League of Conservation Voters  
Midwest Environmental Advocates  
Milwaukee County Conservation Coalition  
Minnesota Center for Environmental  
Advocacy  
Minnesota Conservation Federation  
Minnesota COACT  
Minnesota Environmental Partnership  
National Wildlife Federation  
Northern Michigan Environmental Action  
Council  
Northwoods Wilderness Recovery  
Ohio Environmental Council  
Ohio League of Conservation Voters Education  
Fund  
Ontario Nature  
POLIS Project on Ecological Governance  
Prairie Rivers Network  
Presque Isle Audubon Society  
Religious Coalition for the Great Lakes  
River Alliance of Wisconsin  
Save the Dunes Council  
Sierra Club (United States)  
Sierra Club of Canada  
Sweetwater Alliance  
Three Lakes Association of Michigan  
Tip of the Mitt Watershed Council  
Western Lake Erie Association  
Wisconsin Great Lakes Coalition  
Wisconsin League of Conservation Voters  
Wisconsin Wetlands Association  
Wisconsin Wildlife Federation**

**on the**

**Draft Regional Water Conservation and Efficiency Objectives**

June 8, 2007

**Summary**

Overall, the regional conservation objectives fail to provide the specificity, clarity and progressive guidance state and provincial policymakers will need in order to fashion water

conservation and efficiency programs that lead to accomplishing the goals identified in the Agreement.

Appropriately, the first objective declares that the provincial and state programs should be accountable and measurable. Unfortunately, none of the ensuing objectives are crafted in a way to ensure their measurability, severely hampering the ability of anyone to hold the jurisdictions accountable for achieving them.

These draft objectives are merely general points related to water conservation for policymakers to consider. They do not require measurable, accountable actions. True objectives reasonably lead to achieving goals. These draft objectives do not do this.

The Regional Body's Conservation Committee defends this defect in the draft document by saying in its introduction that, "These objectives are intended to be broad, overarching concepts which will provide context for further State and Provincial action that will be more specific in nature." However, these conservation and efficiency objectives are a mandate of Article 304 of the Great Lakes–St. Lawrence River Basin Sustainable Water Resources Agreement. Article 304 says nothing about "broad, overarching concepts." Instead, Article 304 says the draft objectives should lead to achievement of five specific goals:

1. Ensuring improvement of the waters and water dependent natural resources
2. Protecting and restoring the hydrologic and ecosystem integrity of the Basin
3. Retaining the quantity of surface water and groundwater in the Basin
4. Ensuring sustainable use of waters of the Basin
5. Promoting the efficiency of use and reducing losses and waste of water

These goals embody the overall goals of the Agreement and the ten jurisdictions' commitment to our Great Lakes waters and water-dependent natural resources. By basing water conservation and efficiency objectives on these goals, the Agreement makes clear that water conservation must include the achievement of all of these goals: improvement, protection, sustainability and efficiency.

Since the state and provincial water conservation programs will be two steps removed from these objectives (programs are "based on" jurisdictions' own goals and objectives, which must be "consistent with" the Regional Body's objectives), the objectives set out by the Regional Body have no direct binding force upon the state and provincial programs. However, these objectives *are* required to assist the jurisdictions to achieve the five goals listed above. Given this role, these objectives must be ambitious, forward-looking, and reasonably specific and strong enough to guide the provinces and states to accomplish these goals.

The draft objectives are both so vague and so diverse that they seem to lose sight of their essential purpose—the need for water users in the basin to conserve and efficiently use water so that they will improve, protect, retain and sustainably and efficiently use basin waters and thereby protect water-dependent natural resources. The objectives should collectively point toward desired states of regional water conservation.

The draft objectives do not satisfy this purpose. Despite the existence of advanced conservation programs all over the world that provide examples of detailed and specific objectives, the draft objectives contain no numbers, nor even pledges to come up with numbers, related to conservation and efficiency targets, such as the maximum acceptable rates of water loss the region should accept for given kinds of water uses or the maximum amounts of water acceptable for removal from the region's various aquifers, streams, rivers, lakes and the Great Lakes themselves.

As a general expression of what we as a region aspire to in protecting our waters, the objectives should aim high. The five goals listed in the Agreement must be in the sights of all the provinces and states, even if it is clear that it will take some time to achieve the goals. The only way to ensure this is for the Regional Body to provide the guidance needed to get there by setting forth specific, strong and clear objectives for both the jurisdictions and the basin public to whom they are accountable.

The draft objectives do not aim high. At least twenty of the twenty-five bulleted objectives suggest actions that could be carried out simply with paper exercises that achieve no actual water conservation in the real world. A jurisdiction could fulfill all twenty-five bulleted objectives while leaving its water consumption unchanged. These draft objectives do not lead the states and provinces to achieving the Agreement's goals. To do so, the draft requires a substantial and thorough rethinking and revision.

To their credit, the states and provinces have constituted and continue to consult an advisory panel to assist them in writing these objectives. That panel includes representatives of Great Lakes United, National Wildlife Federation, the Alliance for the Great Lakes and the Nature Conservancy, among other groups. Committee members were given a chance to comment on previous drafts of the objectives.

Unfortunately, the provincial and state officials involved in writing the objectives have failed to benefit from this panel, ignoring many of the fundamental and structural suggestions made by its members, even those shared by industry and conservationists alike.

We are more than disappointed that, less than two years after signing their landmark Agreement on basin water quantity, these draft objectives give the appearance that the provinces and states are failing to fulfill one of their most basic promises under the Agreement.

## **Detailed Analysis**

### **Overall groupings and individual objectives**

The draft objectives document should make clear that

- 1) The five headings used to organize the bulleted objectives are also objectives in their own right that the states and provinces are to achieve

- 2) The bulleted objectives are merely some of the means by which the jurisdictions may achieve the objectives set forth in the headings.

### **Objectives grouping #1**

#### **“Guide programs toward long-term sustainable water use”**

- **Use adaptive programs that are goal-based, accountable and measurable.**

This is an important, fundamental objective, but should be more specific to allow jurisdictional programs to effectively work toward its achievement. Rather than calling for “goal-based” programs, the objective should say that these goals are the five goals already agreed on by the jurisdictions and specifically listed in Article 304 of the Agreement. Rather than saying the programs should be “accountable”, the objective should add something to give that term meaning, such as allowing for public comment on the publicly available annual report required by Article 304. To make the programs “measurable,” the objective should list the basic items—for example, improvements in water loss rates by water use sector—that an effective program should measure.

- **Develop and implement programs openly and collaboratively.**

As above, we would like to see some additional detail included in this objective. We suggest that program “openness” be defined in the objective, specifically, that it be defined to mean public consultation during both conservation program design and its subsequent implementation. To assist in achieving this “collaboratively”, governments should be required to 1) provide basic resources to key civil sectors that are unlikely to be able to comment on program design and implementation without assistance and 2) make all documents available to everyone (including conservation, recreation, and indigenous organizations) in a timely manner.

- **Prepare and maintain long-term water demand forecasts.**

This is an excellent objective. The jurisdictions should include in this objective a forecasting time frame, for example, fifty years, and periodic updates, for example, every five years, so that there is consistency in long-term forecasting across the basin. This would make coordination with federal studies easier as well as providing a better basis for regional planning.

This objective should also require long-term water *supply* forecasts. Both forecasts are required for effective water use management.

The forecasts should include assessment of the impact of population growth, changes in regional economic activity and residential patterns, climate change, and potential effectiveness of water conservation programs. In particular, the forecasts should acknowledge the impact of widely predicted scenarios of decreased groundwater recharge and lower lake levels.

There should also be a collective dimension to this objective, with the individual assessments aggregated into an assessment of basinwide water demand and supply prospects.

- **Develop long-term strategies that incorporate water conservation and efficient water use.**

This is an area where the Regional Body could propose a collective objective for the jurisdictions to jointly pursue. For example, the document could recommend collective commissioning of studies on topics such as:

- Best conservation practices around the world,
- How other regions of the world have maintained long-term water conservation strategies during periods of stable water supply and reduced public interest in water conservation
- Innovative ways to provide incentives for water conservation among private sector water users.

- **Review and build upon existing planning efforts.**

We hope in the age of limited government financial resources, the jurisdictions will do this as a matter of course. A more effective objective on this subject would have a collective character, for example, the holding of a basinwide conference at which all the jurisdictions would present their current planning efforts, followed by small-group discussion of ways to build on and improve them.

## **Objectives grouping #2**

### **“Adopt and implement supply and demand management to promote efficient use and conservation of water resources”**

- **Maximize water use efficiency and minimize waste of water.**

This objective deals with the core of any water conservation effort; but how will the jurisdictions determine what constitutes maximum efficiency when none of the other objectives involve quantifying water conservation? Without a context that promises an eventual list of ranges of ideal water use levels and acceptable water losses for given water uses basin-wide, state and provincial water conservation programs will have no measure against which to be accountable for efficiency gains and waste reduction.

The ten jurisdictions should have as a collective objective the establishment of ranges of acceptable water loss by water use sector. This is a basic requirement for a water conservation program and should be determined at a region-wide level.

- **Promote innovative technology for water reuse as appropriate.**

This objective is substantially weakened by the addition of the phrase “as appropriate.” It removes any pressure on jurisdictions to look seriously at reuse options. This phrase should be deleted. Water reuse is a conservation option that some businesses have expressed great interest in. As such, the jurisdictions should seriously consider water reuse as a means of strengthening their water conservation programs.

To be useful to any program or measurable by the public, this objective should include a range of options for promoting innovative technology for water reuse. The Regional Body could conduct a study of existing technology promotion efforts and additional ways the jurisdictions and the Regional Body could promote reuse among various water use sectors. By conducting thoughtful research on water reuse and the successful promotion of these technologies, the jurisdictions will be able to make more meaningful efforts toward achieving this objective in their water conservation and efficiency programs.

- **Conserve and manage existing water supplies to prevent or delay the demand for and development of additional supplies.**

This is an important objective that could be strengthened by following our suggestions for the first objective in this grouping.

- **Provide incentives to encourage efficient water use.**

This objective is more in the nature of preference for one of the many means by which a jurisdiction can achieve the first part of the first objective in this grouping, “maximize water use efficiency.” We agree that the jurisdictions should provide incentives to encourage environmentally responsible behavior, but, as with so many of these objectives, it needs further elaboration. The objective needs to address determining what constitutes a good incentive package. Also this objective should include incentives to “minimize waste of water.”

This objective should be coupled with a commitment to remove disincentives to efficient water use and the minimization of the waste of water. . For example, the jurisdictions could agree to an objective of ending the practice of water supply pricing systems that provide lower rates for greater use, a common practice that encourages waste.

One way to improve this objective would be to give it a collective character, for example, by establishing a basinwide committee to study the range of possible incentives to good behavior used around the world, assess their relative cost effectiveness, and ultimately provide a list of incentives from which jurisdictions could choose when designing their programs.

- **Include water conservation and efficiency in the review of proposed new or increased uses as appropriate.**

This objective is not needed because it is required in the Agreement’s Article 203, “The Decision-Making Standard for Management of Withdrawals and Consumptive Uses.”

This objective is actually a step back from that section of the Agreement, which commits the jurisdictions to ensuring that *all* proposals for new and increased water subject to government review *must* institute water conservation measures. The use of the phrase “as appropriate” in this objective is substantially weaker than the iron-clad commitment of Article 203.3. Article 203 does not allow for this regression.

Instead of merely parroting a weaker version of the Agreement, this objective needs to define what would be a good “water conservation and efficiency review” in an approval process for new or increased water uses.

- **Promote investment in and maintenance of efficient water infrastructure and green infrastructure.**

“Promote” is not a strong enough commitment in this objective. The objective should be to “ensure” investment in and maintenance of efficient water infrastructure. As with most of the other objectives, this one needs to define what constitutes adequate “investment” and “maintenance”.

### **Objectives grouping #3**

#### **Improve monitoring and standardize data reporting among State and Provincial water conservation and efficiency programs**

This grouping can be described as having two subgroups: 1) improving monitoring, that is, knowing what is going on with water use across the basin, and 2) standardizing reporting, that is, improving the ability of the region to have the same information, in the same technical terms, on the same kinds of activities, all across the basin. These subgroups are commented on as such below.

- **Improve the measurement and evaluation of water conservation and water use efficiency.**

This objective deals with the first item in the grouping title, monitoring. It lacks specificity and therefore accountability. It should require the ten jurisdictions to put their top water management civil servants together in a room to determine what information they need to do their jobs. Implementation of the resulting common set of measurement and evaluation tools should then be an objective of all ten of the basin’s jurisdictional programs.

- **Encourage measures to account for water loss.**
- **Track program progress and effectiveness.**

These objectives bear little relation to the second part of the grouping title, standardizing data reporting, which deals with the states and provinces working together to gather the same data and report it in the same way. This critical need, promised in Article 301 of the Agreement, is indispensable for effective management of the waters of the Great Lakes and St. Lawrence River

basin. The region must eventually be able both to look at its performance as a whole and to measure one jurisdiction's performance against another's. Both capacities are the most basic form of the accountability listed in the document's first objective.

In effect, this grouping has no objectives related to its second component.

There is a related, larger problem that actually applies to all three objectives: they make no reference to the region's jurisdictions working together. It should go without saying that "standardizing" data reporting cannot possibly occur if the ten jurisdictions do not work together on the matter. These objectives address only efforts by the individual jurisdictions to obtain water conservation information. They should be rewritten to make clear that these efforts must be accomplished jointly by all the jurisdictions.

We can also comment on these objectives separately from their poor support for the commendable title of the grouping. The first two objectives, "Improve the measurement and evaluation of water conservation and water use efficiency" and "Encourage measures to account for water loss," are merely a logical prerequisite of the first objective in grouping #2, "Maximize water use efficiency and minimize waste of water." It is not possible to maximize efficiency without knowing how much water is being used, returned, and lost. If this latter objective is written in an appropriately specific and measurable manner, the first two objectives will necessarily be accomplished.

The third objective, "Track program progress and effectiveness," has little value unless it is more specific.

In any case, none of the three objectives addresses the state-provincial standardization called for in the grouping title and in Article 301 of the Agreement. New objectives should be written to accomplish the purpose. An example replacement objective could be,

"Contract with the Royal Society of Canada and the National Academy of Sciences to study the metrics by which water conservation monitoring and data reporting could most effectively serve the overarching water conservation and efficiency goals on a basin-wide level."

Additionally, the Regional Body could work with the Great Lakes Commission, which already houses the collective water use database, or another basin-wide entity, to host a database to house information related to the jurisdictions' water conservation and efficiency programs, and to compile this information in a form that would help regional decision-makers and the public assess progress toward water conservation across the basin.

## Objectives grouping #4

### “Develop science, technology and research”

The most important research need of any jurisdictional or basin-wide conservation program is a quantitative description of “environmentally sound and economically feasible” water conservation targets and measures. Environmentally sound and economically feasible water conservation measures are required by the Agreement for projects proposing significant new or increased withdrawals of basin water. The objectives should ensure the collective development and/or determination by the ten jurisdictions of these critical conservation measures.

Important indicators of water use efficiency are “consumptive use coefficients”—numeric descriptions of reasonable water consumed by given water use categories such as coal-fired energy production, residential water use, automotive assembly, and the like. These descriptions can and probably should be percentage ranges, and should always be applied recognizing the wide variation likely to be present within any particular sector.

Scientifically sound consumptive use coefficients, or descriptions of acceptable water consumption, or target water use efficiencies, do not currently exist. Studies of national water use conducted every five years by the U.S. Geological Survey abandoned use of earlier-developed coefficients as having insufficient scientific basis. We need these numbers, or ranges of numbers, in order for the basin water conservation strategy to contain appropriate targets. None of the objectives in this critical grouping promote the development of these numbers.

The objectives that are included in this grouping are not specific enough to be useful to the jurisdictions and lack a call for collective action. Developing science, technology, and research could be most effectively and efficiently done collectively. This grouping should include objectives that require the joint activity of all ten jurisdictions in achieving the rest of the objectives.

- **Foster the identification and sharing of innovative management practices and state of the art technologies.**

This general idea is good. As with all the other objectives in the list, “foster” needs to be more specific, defining what constitutes good “identification and sharing” efforts.

- **Encourage research, development and implementation of water use and efficiency technologies.**

Research and development of new technologies is likely too large a task for a single region, especially when the region’s water riches assure there is no particular domestic constituency clamoring for the economic benefits of such technology. The Great Lakes has relatively less government financial resources compared to other regions of the United States and Canada to apply to such an effort in any case

If this objective is to be retained, it should go on to *require* the *implementation* of water use and efficiency technologies as appropriate. The most effective basis for encouraging research and development of new technology is to ensure that the resulting products have a market. Required implementation of efficient technologies is traditionally the bread-and-butter activity of any serious conservation program.

- **Seek a greater understanding of traditional knowledge and practices of Basin First Nations and Tribes**

Some of the jurisdictions have few tribes, some many. All jurisdictions could arguably benefit from the knowledge and experience of basin First Nations and Tribes. This objective's "seeking," should be revised to "obtain," and should be a collective enterprise of all the jurisdictions. Perhaps this objective should be specific in calling for a basin-wide summit meeting to kick off the process, and a publication that meets aboriginal approval.

### **Objectives grouping #5**

#### **"Develop education programs and information sharing for all water users"**

- **Ensure equitable public access to water conservation and efficiency tools and information.**

This objective should more explicitly address the reduced access to tools and information in less advantaged social and economic groups by explicitly identifying what equitable access for such groups would look like. It should also go beyond simple access to the real goal of any such objective: participation. The objective should then be specific in identifying what would constitute better opportunities for participation by such groups.

- **Inform, educate and increase awareness regarding water use, conservation and efficiency and the importance of water.**

This is a crucial objective. It has also been carried out in numerous places around the world. This objective should deal with studying those other efforts, determining what application of resources, market penetration, or change in behavior would constitute an effective education program, require the implementation of such a program as appropriate, and then measure resulting increased awareness to determine effectiveness.

- **Share conservation and efficiency experiences, including successes and lessons learned across the Basin.**

This objective is similar to the first objective in grouping #4, which calls for "sharing of innovative management practices and state of the art technologies." Somehow the two objectives should be merged, and, as noted in our general comment on that grouping, the new objective should address some collective activity of the ten jurisdictions. Perhaps this is an area where all

ten governments could agree to contract with an existing organization, such as the Great Lakes Commission, to provide the needed communication.

- **Enhance and contribute to regional information sharing.**

While technically there is a distinction between “contribute” to sharing and simply sharing (the former promising to actually generate something worth sharing), nonetheless this objective should be combined with the above objective.

- **Encourage and increase training opportunities in collaboration with professional or other organizations.**

It is unclear what exactly this objective is intended to achieve. This objective needs to be worded more clearly to make it understandable. Training can be an important means of accomplishing water conservation, but this objective does not specify what sort of training is contemplated, who would be trained, or the goals of this training.

- **Ensure that conservation programs are transparent and that information is readily available.**

This objective duplicates the second objective in the first grouping, and should be combined with it. We strongly support the transparency of conservation programs and access to information related to these programs.

- **Aid in the development and dissemination of sector-based best management practices and results achieved.**

This objective mostly duplicates grouping #4’s first objective and should be combined with it.

- **Seek opportunities for the sharing of traditional knowledge and practices of Basin First Nations and Tribes.**

This objective should be combined with the final part of objective grouping #4. A serious commitment to the aim of this objective would embed sharing traditional knowledge in water withdrawal proposal reviews. This objective could read, “Share traditional knowledge and practices (obtained under the third objective of grouping #4) by including consideration of Native traditional knowledge when undertaking jurisdictional water use approval processes.”

### **Alternative or additional objectives**

In the following section our organizations offer alternative or additional regional water conservation and efficiency objectives that we would like to see included in the final objectives. These proposed objectives could serve as a substitute for the draft objectives or could be combined with suggestions offered above to strengthen the existing objectives.

Jurisdictional water conservation programs should:

- Support implementation of the “Decision-Making Standard” for decisions on diversions by establishing a science-based process for numerically defining the calculation of required return flow. The standard’s acceptable “allowance for Consumptive Use,” a figure sometimes also called “consumptive use co-efficients,” should be numerically defined by major use sector. These allowances or coefficients for any given water use sector should be defined in ranges, reflecting the variation in technical and other requirements within a given sector.
- Use a science-based process to determine which sectors of Great Lakes basin water use would return the greatest value for the dollar invested in conservation. “Value” in this context should be understood in terms of ecosystem protection or improvement and total water withdrawal reduced. Use the results of this information to determine priorities in jurisdictional conservation efforts
- Use a science-based process to prepare a map of the Great Lakes basin indicating degrees of water stress now and projected at intervals in the future. Use the results of this information to determine geographical priorities in jurisdictional conservation efforts.
- Educate the public and water users about the need for water conservation. Any serious education effort must include television advertising that is not limited to public service announcements.
- Ensure that public education and water conservation planning efforts can reach those parts of the population that have less-than-average access to official channels and the Internet
- Be accountable by setting measurable objectives, maximizing public input opportunities, and reporting regularly:
  - 1) Each objective in a jurisdiction’s conservation program should be assessed so that the following question is answered: What difference will progress toward the objective make in terms of environmental protection or improvement?
  - 2) The public should be allowed some form of input at every major stage of program design and implementation, including both priority setting and resource allocation
  - 3) The public should receive reports on progress toward achievement of objectives, preferably at least annually.
- Pool resources with the other basin states and two provinces to:
  - 1) every five years, assess world water conservation programs for usefulness to the basin
  - 2) every five years, assess new water conservation technologies for use in the basin
  - 3) every five years, prepare and maintain long-term (fifty-year) water demand and supply

forecasts for the basin as a whole. These forecasts should include assessment of the impact of population growth, changes in regional economic activity and residential patterns, climate change, and potential effectiveness of water conservation programs

4) every three years report biannually on basinwide water conservation lessons learned

5) obtain basin Native traditional environmental knowledge and practices

- Draw from the regional assessment of world water conservation methods for designing the jurisdictional water conservation programs
- Make use of the regional assessment of new water conservation technologies for deciding which, if any, technologies the jurisdictions should encourage jurisdictional water users to adopt
- Prepare and maintain long-term (fifty-year) water supply and water demand forecasts for each jurisdiction, incorporating useful information from regional forecasting effort
- Every three years, report regionally on combined lessons learned from the jurisdictional water conservation programs
- Incorporate basin Native traditional environmental knowledge and practices into the jurisdictional water conservation program and water withdrawal proposal approval process