# **Basin Environmental Groups' Response to Water Management Working Group Materials**

January 17, 2002

Canadian Environmental Law Association
Environmental Advocates of New York
Great Lakes United
Lake Michigan Federation
Michigan Environmental Council
National Wildlife Federation Great Lakes Office
The Nature Conservancy Great Lakes Program
Ohio Environmental Council
Stratégies Saint-Laurent
Wisconsin Environmental Decade

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#### \*\*\*Permit monitoring

Provincial and state water permitting agencies should monitor individual compliance with permit terms to enforce compliance and guide modification of permit-granting and enforcement practices to maximize compliance.

## Restoration plan

The region's ten state and provincial jurisdictions should create a comprehensive plan for protecting and restoring the Great Lakes and St. Lawrence River basin. The plan should address restoration of natural flows, fluctuations, and channels where ecologically appropriate; provide goals and timelines for reducing water consumption by use sector; protect groundwater recharge areas; and designate and protect areas of special importance for watershed and basin hydrological functioning, among other things.

Improvement projects associated with permitted water withdrawal projects should be drawn from this restoration plan.

## Indigenous consultation and deference

The governors and premiers should commit to instituting means for consulting with Tribes and First Nations on any water withdrawal proposal that may affect them, and for assuring that water withdrawal projects do not violate treaty rights.

## \*\*\*\*Citizen suit

The proposed new regional system for judging water withdrawals is intended to justify retaining authority over basin waters within the region. The new system can work over the long term only if it is enforceable and enforced. The best way to ensure this is to enhance government enforcement with citizen enforcement. Where government is adequately enforcing the new system, citizens should be able to participate, but need not be enforcers. However, where government is not or cannot enforce the new laws, citizens must be able to fill the gap.

The U.S. Clean Water Act provides an excellent model for citizen enforcement. The CWA is recognized as having the highest compliance rate and being the best-enforced federal environmental law on the books in the United States. A critical part of its enforcement scheme is citizen suits.

\*\*\*Citizen enforcement should be incorporated into new water management laws required under the annex-based agreement by allowing citizens to bring suit against 1) withdrawers who fail to comply with the terms of their permits, 2) agencies that issue withdrawals permits in violation of jurisdictional law, the regional agreement, or regional decisions, and 3) any regional bodies, state, provincial or international, that do not adhere to the terms of the regional agreement.

Lake Michigan watershed. Assessments of ecological harm, improvement, return flow, and water withdrawal and consumptive use conservation would all then be applied at the larger scale.

The concept of source watershed or subwatershed should be specifically defined in the annex-based agreement as being of the same scale as the smallest watershed that defines the site of the withdrawal, since that is the scale at which impacts are likely to be most significantly experienced.

Suggested language

"Source subwatershed" is the same subwatershed as defined by geographical order or level at the point of withdrawal.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> For detail on the concept of watershed order see, for example, figure 5 and accompanying text in "Watershed Boundaries and Relationship Between Stream Order and Watershed Morphology at Fort Benning, Georgia," ERDC/EL TR-01-23, September 2001, U.S. Army Corps of Engineers Strategic Environmental Research and Development Program, available at <a href="https://www.denix.osd.mil/denix/Public/Library/SEMP/Monitoring/tr-01-23.html#appa">https://www.denix.osd.mil/denix/Public/Library/SEMP/Monitoring/tr-01-23.html#appa</a>.

quantities without jeopardizing the economic and social benefits associated with the use of the water.

• "Water conservation plan"—a water conservation plan prepared by the applicant for a proposed water withdrawal to minimize consumptive use and system water loss.

The proposed definitions lack precision. Their focus on consumptive use overshadows the intent of the conservation standard to reduce the need for withdrawals in the first place, and to demonstrate to others that we are using water wisely by reducing our existing excessive per capita water use rates as a foundation for water management.

Withdrawals themselves, not just their resulting consumptive uses, are factors in the sustainability of water-dependent ecologies. Requiring in effect establishment of need through requiring best water conservation practices is critical to help ensure sustainable water withdrawals, including meeting other annex standards such as no significant individual or cumulative adverse impacts to the basin's waters or water dependant natural resources.

## \*\*\*"Environmentally sound and economically feasible water conservation measures"

The Standards Subcommittee's proposed definition creates case-by-case tradeoffs between the environment and commerce through the use of phrases such as "reasonable quantities" and "without jeopardizing the economic and social benefits associated with the use of the water." Our proposed definition, by relying on sectoral best conservation practices, considers such factors, but on a sector-wide scale so as to avoid resource intensive and politically charged decisions about individual proposals. Also, our proposal uses proven regulatory mechanisms successfully employed under the U.S. Clean Water Act over the past thirty years. Ontario used a similar approach when it developed sectoral water discharge regulations under its Municipal / Industrial Strategy for Abatement.

Basing "best conservation practices" on the real-life track record of the top-performing facilities in each sector avoids the untested and inherently subjective phrases used in the committee's proposed definition while ensuring that the required conservation measures are economically feasible.

This approach is not inconsistent with a focus on consumptive loss. Since nearly all water withdrawals and subsequent uses entail at least some loss, the first step in preventing water loss is to prevent the need for water withdrawal in the first place.

## Suggested language

"Environmentally sound and economically feasible water conservation measures" are measures that 1) represent best conservation practices for water withdrawals and consumptive uses, as carried out by the best performing withdrawers in the developed world for the given sector, and 2) have been evaluated to assure that their implementation do not themselves cause an adverse ecological impact.

<sup>&</sup>lt;sup>3</sup> This is similar to the Clean Water Act's definition of "best available technology economically achievable," in which the U.S. EPA develops technology-based standards based on the best-performing actors in each sector. *See* U.S. Clean Water Act, 33 U.S.C. sections 1311(b)(2)(A); 1314(b)(2)(A) and (B).

The distinction is one of implicit versus explicit performance standard. Reducing demand and use can be required, but it may or may not result in a smaller withdrawal. For example, neither demand nor use necessarily affect municipal drinking water and sewage pipe leakage, which is determined by use but also by another, independent variable: repair effort.

## "Best practices"

The proposed "declaration of intent" declares that, "It is the intent that the applicants consider the best practices available in developing and documenting their water conservation plan." We think it should be the intent of the jurisdictions that the applicants actually *deploy* and *use* best available water conservation practices, not simply consider them

## Suggested language

The purpose of this conservation standard is . . . to ensure that applicants use the best practices available in developing and documenting their water conservation plan.

We have offered a definition for best practices under the proposed definition of "environmentally sound and economically feasible water conservation measures," above.

## Documenting the amount of withdrawal needed

We support the Standards Subcommittee's identification of "need for a withdrawal" in the conservation plan.

The subcommittee materials imply that water conservation plans will be required only for applications for projects that require regional review. The Working Group made clear at the November 21, 2002, Advisory Committee meeting that it intended all proposals above household-well-type "de minimis" levels, including all proposals that will be initially reviewed at the provincial and state level, to be subject to the annex three-part decision standard. This should be made explicit.

\*\*\*The subcommittee is silent as to who decides if the amount needed for a withdrawal is reasonable and real, and what the consequences should be if the proposed amount is *not* reasonable and real. In that case, the proposed withdrawal should not be allowed. The province or state, and for regional reviews, the state-provincial decision-making body, should make that determination.

## \*\*\*Suggested language

The province or state, and for regional reviews, the state-provincial decision-making body, should determine whether the need for the amount of the proposed withdrawal is real and reasonable. If the need is not real and reasonable, then the withdrawal amount should be reduced or the withdrawal proposal rejected. Define real

## required and at what reporting frequency?

We presume that basic withdrawal and use information that will be required under other aspects of the state-provincial agreement will provide the basic information needed to assess the efficacy of water conservation practices in general.

What is needed here is a commitment by the jurisdictions to system-wide monitoring of permits such that general compliance with them, including their conservation-related terms, is assured.

3. Should a minimum level of conservation or specific percentage saving, benchmarks, or targets be required of all projects?

Yes. Just as the U.S. Clean Water Act and Ontario's Municipal/Industrial Strategy for Abatement are designed to meet measurable objectives, the annex-based agreement should be structured to result in actual water withdrawal reductions. See our comments under "General context: A basinwide plan" in this section of our response.

4. Should conservation plans be required for all water withdrawals, regardless of the potential consumptive loss associated with the withdrawal?

Yes. Conservation plans will decrease the actual amount of water needed to be withdrawn, regardless of the size of the consumptive loss of the proposed withdrawal. Reductions in withdrawals will reduce the likelihood of unanticipated impacts for both individual projects and cumulatively.

Conservation plans for individual withdrawals should conform with local municipal or county master plans in states or municipal, regional, or conservation area master plans in provinces.

We recommend that subwatersheds be the focus of the consumptive use and return flow definitions and requirements.

## Suggested language

"Consumptive use" is that portion of water withdrawn or withheld from a source subwatershed within the Great Lakes and St. Lawrence River basin that is lost or otherwise not returned to the source subwatershed from which it is withdrawn due to evaporation, incorporation into products or other processes.

"Return flow" is the remaining portion of withdrawn water that returns to the source subwatershed proximate to the point of the withdrawal after it is used, thus becoming available for further use in the source subwatershed.

"Water loss" is loss of the waters of the source subwatershed due to consumptive use, diversion, or removal of water."

Since the term is central to the suggested language above, we think it bears repeating here the definition of "source subwatershed" we have proposed in the "General issues" section of this response. Please see that section for explanation of this proposed definition:

## Suggested language

"Source subwatershed" is the same subwatershed as defined by geographical order or level at the point of withdrawal.

#### **Questions to Consider**

1. <u>Should non-Great Lakes Basin water be allowed as part of return flow? If so, how should water quality, issues related to invasive species, and impacts to the originating watershed be addressed?</u>

Non-basin water should *not* be allowed as part of return flow. There is no known technology for certainly preventing the introduction of invasive species in water originating in an extra-basin watershed. Thus extra-basin return flows fail to meet the annex principle of no significant harm to the basin's water-dependent natural resources.

2. Should the question of seasonality or the timing of return flow be considered?

Yes, as part of the ecological impacts ("no significant harm") analysis. Return flow that does not closely mimic original flow can damage the ecosystem.

3. What requirements should be put in place regarding the location of return flow?

See above suggested language for the definition of "return flow."

## **Ecological impacts**

In the Great Lakes Charter Annex, the Great Lakes and St. Lawrence River governors and premiers committed to requiring proposals for new or increased water withdrawals to demonstrate that they will cause, "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."

Evaluation of ecological impacts—both significant adverse impact and improvement—is the linchpin of the three-part decision making standard proposed in the annex. The success of the annex in retaining regional control of basin waters depends on its success over time in *both* preventing ecological harm caused by water withdrawals, and, on that basis, successfully carrying out effective restoration.

## Definition of "significant"

In November 2002, the Decision-making Standards Subcommittee proposed the following definition of "significant" in the context of the annex impact principle: "important, notable, valuable."

This definition is insufficient to determine if a project has a significant ecological impact. Ultimately, what is deemed significant to an ecosystem will depend on the characteristics of the ecosystem within which the project is proposed. The definition needs to be clear, specific, and quantifiable. It also needs to have sufficient flexibility to account for differences in the type and scale of ecosystems within the Great Lakes – St. Lawrence River basin.

## \*\*\*Suggested language

"Significant" adverse individual impacts of a proposed water withdrawal are those physical, chemical, or biological impacts listed in the following table: . . ."

## Criteria for decisions

## General criteria

Determining the potential for harm (as well as improvement) requires a process to 1) establish current (baseline) and target conditions (based on the earliest, least disturbed condition that is defensible) for each ecosystem and 2) use these two conditions to establish system-specific criteria against which proposals will be evaluated. Although past impairments may preclude restoration of the system to natural condition, natural condition must be understood in order to define the target condition and guide ecosystem improvement. Movement from the baseline toward the target condition will be considered an improvement; movement away from the target condition will be considered harm (figure 1).

debris that functions as instream or in-lake habitat; degradation of emergent, submergent, or riparian vegetation; changes to natural distribution of riffles and pools)

- No disruption of natural connections between and among habitats, including lateral (that is, riparian) and longitudinal (that is, up and downstream) connections
- No disruption of natural temperature regime of the hydrologic system (that is, the natural variability of its thermal conditions)

## Chemical criteria

- No disruption of natural productivity of the ecosystem
- No introduction of potentially harmful toxins, contaminants, and excessive nutrients<sup>4</sup>
- No disruption of the hydrologic system's ability to process toxins, contaminants, and nutrients (that is, no disruption of chemical and nutrient cycling)

## Biological criteria

- No decline in population levels or health of native species
- No introduction of non-native species
- No disruption of biological interactions such as predation and competition
- No introduction of harmful microorganisms and no elevation of microorganisms to harmful levels

We also think there should be a screen for projects whose effects cannot be practically remedied once the project begins. There is considerable evidence that the hydrologic regime is one of the key drivers of freshwater ecosystems, yet the ability to predict *specific* ecological impacts to *specific* ecosystems is limited. Thus projects whose effects cannot be reversed should be considered de facto causes of significant harm to the basin's water-dependent natural resources.

#### \*\*\*Suggested language

## Precautionary criterion

In addition to the above criteria, and in order to guard against irreparable damage caused by inadequate scientific knowledge, water withdrawal projects shall not pose *any* risk of *permanent* or *irreversible* change to the biological, physical, and chemical characteristics of the hydrologic system that could impair its ecological function.

<sup>&</sup>lt;sup>4</sup> Damage caused by a withdrawal project's introduction of toxins, contaminants, and excess nutrients should be prevented by existing laws, but to the extent they are not, the annex should prevent them.

5. What should be the relationship between ecological and other types of impacts?

The Great Lakes Charter Annex (Annex 2001) does not mention other types of impacts.

6. How should connected actions and phased actions be defined and considered in the context of evaluating individual and cumulative impacts? Fundamentally, what should constitute a single project?

Defining current and target conditions facilitates the evaluation of both individual and cumulative impacts. See discussion under "Criteria for decisions" above.

7. What should be the role of the applicant in assessing potential cumulative impacts? What should the role of state/provincial/regional authorities be in assessing and responding to cumulative impacts?

There should be minimal role by the applicant assessing potential cumulative impacts, but applicants should be required to provide information about the withdrawal and associated improvement to the state / provincial / regional authorities as it is carried out in order to help determine if cumulative impacts are occurring.

State, provincial, and regional water management authorities should 1) reevaluate baseline conditions periodically (say, every five years), 2) use system-specific (rather than only basin-wide) criteria to direct comprehensive water management planning efforts, and 3) issue permits within the context of likely future climate and demand scenarios.

## Suggested language

Assessments of a withdrawal proposal's improvement component shall be based on ecological rather than economic measurements.

By assessing proposed improvements in this way, the region avoids turning the improvement component of proposed water withdrawals into a fee for withdrawing water.

One of the most useful attributes of the annex's improvement principle is its flexibility—the applicant is not required to take any specific action, much less pay any specific amount. Instead, the applicant has a limitless universe from which to choose known and yet-to-be created means for improving the functioning of the ecosystem. The only requirements are that the improvements 1) actually improve, and 2) be measurable in some way. We propose that this way be defined as "surplus, real, and quantifiable."

See also our discussion of assessing significant adverse impact under "Criteria for decisions / General Criteria" in the "Ecological Impacts" section of this response. In important respects the criteria for determining improvement are the mirror image of the criteria for assessing potential adverse impacts.

#### Source watershed preference

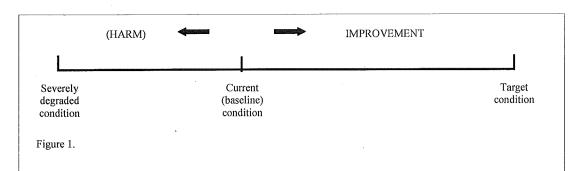
Improvement projects should preferably address the source subwatershed of the proposed withdrawal. We propose defining "source subwatershed" in the conservation section of this response as, "the same subwatershed as defined by geographical order or level at the point of withdrawal."

## Restoration plan

If an ecosystem is already at its target condition, the improvement project should be tied to a Great Lakes – St. Lawrence River basin ecosystem restoration plan that sets restoration priorities agreed upon by the jurisdictions.

These priorities should include a map of important ecosystems in need of protection or restoration.<sup>5</sup> The restoration plan should also identify the physical, chemical, and biological characteristics that need to be restored in order for individual ecosystems to reach their target condition, and the priority in which individual restoration efforts should occur.

<sup>&</sup>lt;sup>5</sup> In summer 2003 The Nature Conservancy is convening conservation leaders who have identified important or high quality ecosystems in the Great Lakes basin (for example, the Critical Ecosystems model developed and applied by U.S. EPA Region 5, and Biodiversity Investment Areas identified by U.S. EPA Great Lakes National Program Office). These leaders will correlate these ecosystems with a set of areas independently identified, with broad community input, through the ecoregional planning process led by The Nature Conservancy. The resulting set of mutually agreed-upon areas could be the foundation for the annex-related restoration plan / map of candidate improvement areas.



Evaluating improvement, like evaluating harm, requires knowledge of current condition and the past impairments, if any, that have led to deviation from target condition. As stated in the "ecological impacts" section of this response, withdrawal applications should include plans for preventing harm to the current (baseline) condition. A new baseline condition should be established when improvements are made to the ecosystem as part of any previous water withdrawal proposal. Determination of potential harm by the current and future proposals must be made in the context of this updated baseline condition to ensure that the Great Lakes – St. Lawrence River ecosystem as a whole, and its component ecosystems, moves toward restoration.

Understanding specific impairments to physical, chemical, and biological conditions is the precursor for determining appropriate improvements. Based on this understanding, a flowchart can be used to guide where and what kind of improvements are appropriate (figure 2).

- 1. Size of the proposed withdrawal (small, medium, large)
- 2. Size of proposed consumptive loss (small, medium, large)
- 3. Type and size of proposed source ecosystem (deep aquifer, shallow aquifer, small tributary, large tributary, Great Lake or St. Lawrence River)
- 4. Degree of uncertainty about the ecological impacts of the proposed withdrawal (small, medium, large)

Public input should be solicited during development of this evaluation process, and the public should have access to relevant analyses and documents used by the jurisdictions during the development effort.

#### Questions to Consider

1. What, if any, relationship should there be between improvement and a Great Lakes Basin restoration plan or a watershed-based restoration plan?

See figure 2 ("Guiding proposed improvement projects") and above comments.

Assuring that basinwide restoration in fact occurs is essential in achieving the central annex aim of retaining authority over basin waters within the region. Requiring that all improvement projects be consistent with a basinwide restoration plan will maximize the likelihood that basinwide restoration does in fact occur over the long term.

2. What type of activities should be qualified as improvements?

See figure 2 ("Guiding proposed improvement projects") and above comments.

How can we prevent trade-offs between water loss and unrelated improvements?

Preventing and minimizing water loss should be addressed through the water conservation and return flow portion of the standard.

In figure 2 ("Guiding proposed improvement projects") we propose prioritizing hydrologic restoration over other types of improvements. This could guard against trade-offs between potentially unrelated improvements.

3. What is the appropriate relationship between the location of the withdrawal and the improvement?

See figure 2 ("Guiding proposed improvement projects") and above comments.

Should scale considerations be taken into account based on the location of the withdrawal relative to the improvement?

Yes. Taking scale and the location of the withdrawal when assessing a proposed improvement will protect against unforeseen local degradation caused by water withdrawal projects.

7. Should a minimum level of improvement be designated? If so, how should this level be established?

Yes. The annex requires that all proposed water withdrawal projects comply with its principles, one of which is a showing of improvement.

See the "Judging improvements" section of this response. We recommend broad categories of correspondence between sizes and types of withdrawals and sizes and types of improvement. The minimum level of improvement would be an improvement in the smallest categories of size of withdrawal, size of consumptive loss, and degree of uncertainty regarding ecological harm, and of a type corresponding to the type of withdrawal.

8. What, if any, relationship should there be between cumulative impacts and improvement/ restoration (i.e. could improvement be considered, in part, a contribution toward the "mitigation" of past, present and future cumulative impacts of Great Lakes Basin water use)? In other words, against what baseline should improvement be measured?

The annex disallows projects determined to cause cumulative ecological impact, therefore, strictly speaking, there should be no relationship between a given proposed project's improvement and its known contribution to cumulative ecological impacts.

However, there could and should be a relationship between improvement projects and preexisting ecological impacts of human activity whether individual or cumulative.

\*\*\*The baseline against improvement activities should be measured should be the current condition. The goal toward which improvement projects would be applied would be the target condition established by the basinwide restoration plan and local planners.

9. What should be the relationship between estimated water loss/consumption and improvement?

We have proposed that the degree of a proposed withdrawal's consumptive loss be one factor in a matrix for guiding an appropriate improvement. See the "Judging improvements" section of this response.

Court of Justice.			

## process? Who is the Public?

\_\_\_\_The definition of the public should be as inclusive as possible to include all groups or individuals with interests in proposals.

- Current systems for public involvement in water withdrawal decision-making among the U.S. states and Canadian provinces should be compared for best practices
- The public should have the right to intervene and comment at all stages of project consideration for approval
- New public involvement processes should not diminish the access, rights and transparency of current public notification and participation systems.
- Public rights should be as consistent as possible. Xacross the basin.X
- Records of initial public intervention and comments on a proposal should be part of any higher levels of review.
- The public should have the opportunity for XpublicX input prior to each ruling on a proposal (at the decision points represented in the above diagram) and whenever the proposal under consideration is altered or modified.
- XTherefore the public should haveX This should include access to proposal applications, supporting studies, and

communications between governments and with the applicants X and all relevant studies to the proposal X as well as the record of others' comments in a timely way.

2. How do we see the Regional Advisory Committee process working among the ten jurisdictions? Are there particular issues raised by cross-border consultation that the jurisdictions should take into consideration?

Please see the diagram above for a graphical representation of our suggestions for how the process should work among the jurisdictions.

\*\*\*We do not think the state-regional decision-making body should be advisory, as indicated in names "Regional Advisory Committee" and "State-Provincial Advisory Body" by which the Interprovincial / International Subcommittee refers to the body in these materials. Regional decisionmaking should be binding on its member jurisdictions.

\*\*\*Make up of state / provincial decision-making body

The membership of the international, interprovincial, and compact bodies should be:

Original Sarah proposal: current Water Management Board under the Charter.

3. What is an appropriate time frame for the decision making process on proposals requiring regional review? In other words, how long should it take?

The time frame for regional water withdrawal decisionmaking should balance the imperatives of 1) accurately reaching the correct, ecologically protective decision in all but the smallest fraction of proposals, and 2) the need for predictability and, in some cases, speed.

Please see the answer to question 5.

#### **Questions** considered

#### 1. Compact creation

- Should the Great Lakes Basin Compact be amended to enact a binding compact?
- Should a new stand-alone compact be created?

xWe know of no significant difference between the choices.x

Whatever option is chosen, any decisionmaking body created in the process should be independent of existing basin institutions.

The primary purpose of the Great Lakes Charter Annex, and Xa pre-requisite for Congress'sapprovalX of a compact based on annex principles, is the creation of new unique system with undeniable integrity, clearly devoted to regional ecosystem conservation and restoration rather than regional trade protectionism. YES WE DO WANT A NEW STAND ALONE FRAMEWORKThis system will be pioneering new concepts such as the improvement standards and should not be tied to the Great Lakes Basin Compact which predates these initatives and does not directly address them. Furthermore the Canadian Provinces do not consider themselves signatories of the Great Lakes Basin Compact. XIf the new system is administered by the Great Lakes Commission or another existing body, the ecological effectiveness of the system and therefore the basic regional intent to protect the ecosystem could be questioned.X Since the approach of the annex is a new, unique and is likely to serve as a model for others sharing management across borders it is important to have a new stand alone AGREEMENT dedicated to these initatives.

 What if any changes should be made to the Water Resources Development Act of 1986 as amended in 2000?

We advocate long-term retention of the existing requirement in U.S. law, the Water Resources Development Act of 1986, for unanimous gubernatorial concurrence in diversion of water from the U.S. portion of the Great Lakes – St. Lawrence River basin.

The WRDA concurrence requirement is an important backup support for protective water withdrawal decision-making and the simplest way to ensure binding enforcement in the United States of decisions by the state-provincial decision-making body to reject U.S.-based water withdrawal proposals.

## 2. <u>Compact membership</u>

• Who should be members of the Compact Commission?

\*\*\*Assuming such a body were designed to usefully support the regional decision-making process, Old language, perhaps not consistent with International section of the response; the

All conflict resolution should begin in consultation and mediation in order to avoid resort to enforcement and appeal processes and the resentments they can entail.

However, as a last resort for all parties concerned—the public, water withdrawal applicants, the states, and the federal government—the compact must make strong enforcement and appeal tools available if necessary. Without such tools the region's new decision-making system will not have the credibility needed to receive approval by national authorities concerned that the system may be merely a cover for regional protectionism.

In general, the regional decision-making body, and the compact body to the degree it plays a role in regional decision-making, should be accountable to the public for faithfully implementing all terms of the binding agreement and the compact respectively.

In the case of the compact body, the compact agreement should:

- Specify public participation in any process for granting a water withdrawal permit as proposed above, including also, where practical and helpful, facilitated or mediated consultation between the applicant and the public
- Specify interstate consultation and provide a means for mediating disputes remaining after consultation is completed.
- Provide an independent means for assuring that the states and the compact body itself faithfully implement both the compact's provisions and the decisions of the regional body. We believe that citizen suits are a critical component of such assurance in that they provide an incentive before the fact for official parties to act consistently with their formal commitments.
- Establish a means by which states can be compelled by the compact body to implement the provisions of the compact and regional bodies if at some point they fail to do so (see our answer to question 4b).

## 4. Compact authority and enforcement

What powers of the States should be exercised jointly through the Compact Commission? Please refer to the Compact Authority section above to review some of the options the Subcommittee has identified.

The states have broad but limited authority over the waters within their borders. This authority potentially diminishes as the status of the waters in question moves from non-navigable to navigable to interstate to international. The Great Lakes Charter Annex promises uniformity in the standards by which all of this authority is exercised in the area of withdrawals.

The state power that should be exercised jointly through the compact and regional bodies is that of last-resort interpreter (before court proceedings) of water withdrawal decision-making standards: 1) in content, relative to application of science, 2) in context, relative to climate change impacts, analysis of cumulative harms, and the restoration planning backdrop for improvements, and 3) in implementation, relative to individual approval and rejection of

The compact body should not be adopting standards, which should be specified in the compact. However, the compact / regional body should be engaged in modifying the means for implementing the standards in accordance with new knowledge: 1) for the conservation standard, specific criteria for determining contemporary best conservation practices, 2) for the significant adverse impacts standard, the specific criteria for incorporating a) existing and new scientific knowledge, b) contexts such as demand and climate change effects forecasting, and c) methodologies for assessing cumulative impacts, and 3) for the improvement standard, a planning context.

J. A combination of some or all of the above.

Yes.

## 5. With what tools should the Compact organization enforce its decisions?

The options for such tools can be persuasive, punitive, or coercive. A compact body could persuasively condition privileges, such as participation in the activities of the compact or regional body, on full compliance with its decisions. A compact body could punitively fine states that do not comply with the decisions of the compact or regional body. Finally, the compact body should be coercive when absolutely necessary, resorting to litigation to enforce it legitimate decision or those of the regional body.

All three kinds of tools should be available to the compact body. The process for originally making decisions will ideally run in order from consultation to mediation to enforcement. Likewise, the last step, enforcement, should begin using the least confrontational means.

Finally, the compact should provide a critical indirect enforcement tool: the right of basin citizens to challenge in court a) individual withdrawers, on the basis that they are not complying with the terms of their permits, and 2) individual jurisdictions and 3) the compact body itself, on the grounds that they are failing to implement or enforce the terms of the compact or the decisions of the regional body. See the "Citizen suit" heading of the "General issues" section of this response.