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Environmental Group Comments on the Proposed "Great Lakes Basin Water Resources Compact"

October 18, 2004

The core recommendations in each section of comment are indicated by the symbol "=>".

ALL COMPACT ARTICLES

The proposed U.S. compact and state-provincial international agreement share many passages with what appear to be the same intent, yet they are often worded substantially differently. The two documents even contain different definitions for some of the same terms.

=>Both documents declare a desire to make water management as consistent as possible across the basin. Symbolically and practically, this objective would be served by rendering in identical language all those passages in the two documents that have the same intent.

MULTIPLE COMPACT ARTICLES

Please note that we comment on articles 8 and 9 together as well as individually, because in some cases they deal with common topics.

YET-TO-BE-DETERMINED COMPACT ARTICLES

On several occasions in the below comments we have recommended new sections to address problems we see with the draft text. In some of these cases we have made our best guess of the most appropriate home for the new section and we point them out here to draw attention to them:

=> There should be some kind of tie between the compact and the detail on the standards provided by the international agreement's Procedures Manual. We detail this recommendation in the joint discussion of Articles 8 and 9, and suggest including the pertinent language in section 3.6 or Article 5.

=> There should be a mandate and timetable for determining consumptive use coefficients. We detail this recommendation in the joint discussion of Articles 8 and 9, and suggest that the pertinent language be added to Article 10.

COMPACT ARTICLE 1

SHORT TITLE, DEFINITIONS, PURPOSES AND DURATION

Section 1.2—Definitions

Problem—Conservation measures

The second line of the definition of "Environmentally Sound and Economically Feasible Water Conservation Measures" reads, "Water management practices and Water efficiency measures must be economically feasible based on a cost-benefit analysis that includes avoided environmental and economic costs." The intent of the language seems to be to prevent the "cost-benefit" language of the provision from undermining the "economically feasible" language, that is, to make sure that provision is not interpreted to require only water conservation practices that pay for themselves in saved water and related expenses.

However, it is the legal nature of the phrases "cost-benefit" and "economically feasible" to be, in substantial measure, opposed. The former is legally used to measure costs to the implementing party—sometimes to society at large, if regulations are at issue, but in this case to individuals or companies proposing individual projects—against benefits to the implementing party. Unless otherwise specified, if the result of the cost-benefit analysis is net cost, the step under consideration is usually not required. "Economically feasible," on the other hand, legally measures the cost of the proposed step against a standard of reasonability or affordability for the implementing party, with the outcome routinely being a net cost but the step also routinely being required nonetheless, depending on the amount of the net cost in the context of the scale of the project and the resources of the proposing party.

The draft text attempts to split the difference by requiring the cost-benefit analysis to include benefits usually categorized as benefits only in the context of regulations, not in the context of an individual project. From an environmental protection point of view, this attempt is likely to come to grief. One main reason for this result is the nature of the phrase—"avoided environmental costs." This is a vague phrase, for which there is no guidance even in the state-provincial international agreement's Procedures Manual, nor, to our knowledge, anywhere in existing environmental law.

=>We recommend striking the phrase "based on a cost-benefit analysis that includes avoided environmental and economic costs."

Praise—Diversions

This subsection defines diversions as between Great Lakes. This improves on the voluntary 1985 Great Lakes Charter, and would subject one or two projects already on the drawing board to greater scrutiny.

Problem—Diversions

=>However, the definition should be extended to include diversions between major rivers that are tributary to a Great Lake or the St. Lawrence River.

Inter-river diversion projects are more common and more likely to cause ecosystem damage than inter-lake diversions at the current scale of most projects. And the stronger definition would take a longer step toward legal durability in Commerce Clause and international trade contexts. By more significantly affecting ongoing damaging practices taking place within the basin, the stronger definition would remove the possible future argument by aggrieved parties proposing rejected diversions that, although the compact is somewhat even-handed in writing, in practice in-basin withdrawals and out-of-basin diversions are treated completely differently. With a significant number of possible in-basin withdrawals legitimately defined as diversions, such an argument would be much harder to sustain.

Problem—Water conservation as improvement

This proposed subsection unfortunately alters the definition of improvement provided in Annex 2001. The original language defined improvement as "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." This is appropriately broad in a general definition.

The language in the recently proposed compact substitutes for "associated conservation measures" the phrase "associated Environmentally Sound and Economically Feasible Conservation Measures." It may be that this change was only an attempt at greater clarity, but the effect is possibly to permit the definition to be interpreted to allow the already required water conservation measures implemented by the applicant to also count as the project's required improvement.

=>The definition should be returned to its original language.

Problem—Preference for improving flows

Even if the intent of the change is merely to put a special emphasis on water conservation unrelated to the project, we support the thrust of the international agreement's more detailed treatment of improvement, in effect a more detailed definition, which says that restoring natural water flows should be the preferred focus of improvement projects.

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=>Therefore, in addition to returning the definition of improvement to that found in Annex 2001, we suggest adding natural water flows to the closing list of possible improvement projects: "... such practices as restoring natural flows, 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."

Praise—Source watershed

In this subsection "source watershed," a term intended to define the site of return flow, is defined as major tributary to a Great Lake. While insufficiently small to protect many watersheds from the effects of complete water removals, at least this definition is an improvement over the huge lake watershed originally contemplated.

Problem—Source watershed

However, the reason for defining the term in the compact—its use in the return flow standard—is mooted by the return flow section itself, which re-defines source watershed as individual Great Lake. See our comments under sections 8 and 9.

=>"Source watershed" should be defined as "the smallest scale of watershed as defined by the U.S. Geological Survey at the point of withdrawal."

=>At the least, the last sentence of the current definition should be replaced with a definition of source watershed for withdrawals that are not directly from a Great Lake or the St. Lawrence River. We recommend that for such withdrawals, the compact declare, "The source watershed shall be the watershed tributary to the Great Lake or St. Lawrence River from which the water is withdrawn."

Problem—Return flow

The proposed compact's current definition of return flow, found in sections dealing with the conservation standard, rightly appears to require return of the actual water withdrawn. This is a critical protection against the introduction of invasive species from neighboring watersheds.

=>The compact should explicitly define return flow in the definition section as requiring return of the same, identical water that was originally diverted.

Problem-Withdrawal

Under the proposed definition of withdrawal, a water withdrawer could subdivide water withdrawal infrastructure or proposal timing so as to avoid regional or jurisdictional oversight.

=> The definition should include the following: "The amount of 'a withdrawal' for the purpose triggering provisions of this agreement is 1) the amount of all withdrawals from surface and groundwater resources that supply a common distribution system and 2) the cumulative amount of

water already approved and proposed for supply of a given distribution system for the previous twenty years or the effective date of this agreement, whichever is later."

Language to similar purposes is already contained in sections 203.3 and 203.6 of the international agreement.

Section 1.3—Purposes and Findings

We strongly suggest inclusion of a broader statement of purpose in this section that reflects the state trust responsibilities.

=>We suggest inserting as the first paragraph of this section the first of the document's current "whereas" statements, slightly modified to use the terminology of the definition section: "The Waters and Water Dependent Natural Resources of the Great Lakes Basin are precious public natural resources, shared and held in trust by the Great Lakes States."

COMPACT ARTICLE 2

ORGANIZATION

Section 2.4—Voting Power

Praise—Amendment

In this section the ability of the Compact Council to effectively change the agreement is appropriately limited to creating and amending the regulations needed to implement the standards. This power can be exercised only unanimously, assuring collective decisionmaking by the compact parties.

COMPACT ARTICLE 3

POWERS AND DUTIES

Section 3.2—New or Increased Diversions and Consumptive Uses

Praise-Monitoring

Subsection 3 requires monitoring of permitted projects for compliance with permits.

Problem—Enforcement

Subsection 3 also says that states "may take all enforcement actions to ensure" that withdrawers comply with the terms of their permits. We assume that the states intend for all permit holders to comply with their permits.

=>The language should be changed to say "shall take any enforcement actions needed to ensure" compliance.

Section 3.3—New or Increased Diversions: Proposals Subject to Regional Review and Council Review

Praise—Overall treatment of diversions

This subsection requires unanimous approval by the eight states of diversions over 1 million gallons per day averaged over 120 days, in effect the U.S. Water Resources Development Act veto authority wielded on the basis of the standards, as promised by the governors in the resolution agreed to on the same day they signed Annex 2001. Since WRDA requires no standards for vetoing diversions, by comparison the compact provision that diversions can be approved if they meet certain standards seems to limit the ability of the governors to veto diversions. However, the standards (especially the return flow standard) appear strong enough in practice to discourage most diversion proposals and to legally justify vetoing all but the smallest proposals that are ultimately submitted—so long as the states are reasonably rigorous in enforcing the standards to in-basin withdrawals.

Problem—Averaging

The proposed compact averages withdrawals over 120 days as a way to determine which proposals deserve scrutiny.

=>>The averaging period should be 30 days. See our comments under articles 8 and 9 below.

Section 3.4—New or Increased Consumptive Uses: Proposals Subject to Regional Review and Council Review

Problem—Level of "consumptive use" requiring Regional Review

See also our more extensive analysis of this problem under our discussion of Section 8.3— "Council Review for Consumptive Uses."

Section 3.4 requires a 6-2 vote to approve a withdrawal for in-basin use that results in a loss of 5 million gallons of water per day averaged over 120 days. This is a substantial amount of water with five times the identical potential for adverse impact (total loss of water to the basin) of the 1-million-gallon-per-day diversions that are the subject of section 3.3—yet it is governed by an weaker decision-making system. While the voting system is less important than the strength of the standards on which votes are supposed to be cast, nevertheless, differential voting systems should have an underlying logic, presumably differential potential impacts to the ecosystem. No such logic apparent here

=>Because they have the same potential impact to the system, withdrawals resulting in consumptive loss should be subject to the same decision-making trigger level (1 million gallons per day) and voting system (unanimity).

=>Alternatively, the trigger level for Regional Review could be triggered for consumptive uses by withdrawal rather than loss. Trigger levels of 1 million gallons for diversions (that is, 1 million

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gallons of potential loss) but 5 million gallons of withdrawal for consumptive uses may be sufficiently "apples and oranges" so that, combined with the permissibility of limited differential treatment, the overall system would survive future court or arbitral panel scrutiny.

Again, please see our more extensive analysis of this problem under our discussion of section 8.3.

Problem—Averaging

=>Withdrawals should be averaged over 30 days. See our comments under articles 8 and 9 below.

Section 3.6.—Rules and Regulations

Praise—Regional public participation in developing rules

This section affords the public opportunity to comment on the development of rules for implementing compact provisions. This is an important provision since it will be these rules and regulations, as much as the general language of the standards, that will determine the fate of individual proposals.

Problem—Regional public participation in developing rules

However, it is even more important that the public be given this same opportunity for comment by the individual states when they develop rules for implementing compact obligations. After all, it is likely that many more water withdrawal decisions will be made on the state level than on the regional level, and that state-level decisions are likely to have collectively greater potential for adverse impact to the basin ecosystem, at least for the foreseeable future.

Section 3.7—Public Participation

Praise-General

This section requires public notice of all new or increased withdrawals requiring a permit, opportunity for public comment on all such withdrawal proposals, and access to "all documents relevant" to such proposals.

Problem—Comment on draft permits

This section should solicit public comment not only on original proposals, but also on permits or approval documents that states and the Compact Council propose to issue. Permits and approval declarations can be heavily conditioned and in that sense dramatically different from original proposals. Since the basic facts of a given proposal and its potential ecosystem impacts should be fully explored during original comment, this second comment period could be very short.

Problem—Procedures of facilitating regional review

=>We suggest that the compact include a provision declaring, "The Compact Council shall solicit public comment on the procedures it develops for reviewing proposals that trigger Regional Review, including the development of procedures for receiving public comment.

Problem—Criteria for scheduling public meetings

=>In particular, this section should require standards for determining which proposals require public meetings or hearings. Rather than "provide guidance on standards" for deciding to hold such meetings, the Compact Council and the individual states should simply be required to "establish" such standards.

=>In further particular, this section should offer at least a broad definition of the kind of proposals for which the public should be granted meetings or hearings. We recommend defining such proposals as those "likely to generate significant community interest, including any proposal that rises to the level of regional review."

Problem—Public participation in non-proposal activities of the Compact Council

The Compact Council may take on a number of non-proposal research and review activities.

=> We recommend that the Compact Council facilitate broad public participation in its activities by adding a clause to section 3.7 declaring that: "The Compact Council shall develop procedures to facilitate public comment on any of the following activities that it eventually carry out, or collaborate with the Regional Body to carry out:

- 1. Development of a process for reporting whether jurisdictional water conservation programs meet the requirements of the compact or international agreement
- 2. Creation of reports on jurisdictional water management programs
- 3. Development of a process for monitoring and reporting on the jurisdictions' implementation of the compact or international agreement, including jurisdictional data collection and reporting and jurisdictional implementation of water withdrawal management programs
- 4. Creation of reports on jurisdictional data collection and water withdrawal management program implementation
- 5. Development of a process for assessment of cumulative impacts of basin water withdrawals
- 6. Creation of reports on cumulative impacts assessment
- 7. Development of a process for determining consumptive use standards or coefficients
- 8. Development of a process for determining the groundwater divide, and developing water withdrawal policy based on the new groundwater divide information
- 9. Review and, especially, proposed revision of the standard for judging water withdrawal proposals."

Section 3.8—Consultation with Tribes

Praise—Regional consultation

This section assures that tribes will be separately and individually consulted on all water withdrawal proposals that rise to regional review.

Problems—State consultation

=>This provision should of course be extended to water withdrawal proposals that are reviewed only by the states.

=>Furthermore, the compact should explicitly state that nothing in the compact is intended to intrude on the existing rights and sovereignty of any basin tribe.

Section 3.9—Enforcement

Praise-General

This section grants citizens substantial tools to assure that the provisions of the compact are followed by both the Compact Council and the states, including the right to contest in court all final decisions, at both levels, as inconsistent with the compact, and the right of citizens to both directly sue water withdrawers who fail to secure required permits and recover legal costs if vindicated in court.

Problem—Enforcing permit conditions

=>Citizens should also be granted the right to sue not only withdrawers who fail to obtain a permit, but also those in clear violation of the permits they have received.

As exercised for decades under other U.S. environmental laws, this citizen right would in fact result in few cases, because they are so expensive. However, in those cases where citizens do sue, the results are almost invariably positive, both for the environment and as assistance to the government agency responsible for enforcing the law.

Problem—Enforcing government obligations

=>Citizens should also be granted the right to sue state governments or the Compact Council for gross derelictions of duty.

Under the compact as written, the public has no means to compel deficient states or the Compact Council as a whole to carry out even the most basic general duties required by the compact but unrelated to permitting, such as water withdrawal reporting. As noted above, this is a right that will be used rarely if ever, but is a valuable tool for protecting the environment in extreme cases.

Problem—Cost recovery

=>Citizens should also be granted the right the recover legal costs undertaken to contest any state or Compact Council decision (or any permit, if citizens gain that right) if it is shown that the citizen legal effort made a significant contribution to good faith implementation of the provisions of the compact or of resulting state water law.

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Section 3.10-U.S. Supreme Court Decree: Wisconsin et al. vs. Illinois et al.

Praise

This section maximizes the ability of the provinces to participate in a issue of undisputed basinwide significance.

Problem—Applicability of standards

However, because there is a conflict between the authority of the United States Supreme Court and the proposed compact, the draft language throws out the baby with the bathwater by simply declaring that the compact will not apply. The region could keep the baby by acknowledging the Supreme Court as the sole authority over the diversion while explicitly pledging to do everything possible to assure that any possible future requested increases to the diversion are subject to the standards.

=>We suggest striking the current language of section 3.10 and replacing it with "In any process by which the *Wisconsin et al. vs. Illinois et al.* may in the future be amended, the parties to this agreement who are also present or future parties to the decree shall make every good faith effort to assure that any proposed or retroactively realized increase over the current court-ordered level of flow out of the Great Lakes basin is compelled to be subject to any processes outlined in this compact that would otherwise apply if no court decrees were in effect."

Section 3.11—Program Review and Findings

Problem—Reporting is voluntary

Despite a seemingly sincere commitment by the states in the proposed international agreement's Article 300.2 to annually "submit a report to the Regional Body . . . detailing the Water management programs that implement this Agreement in their Jurisdiction," Section 3.11 declares only that the states "may" do so "periodically."

=>The compact should require the parties to live up to their international agreement obligations by declaring that they "shall" submit the needed report annually.

COMPACT ARTICLE 5

GENERAL PROVISIONS

Section 5.1—Meetings, Public Hearings and Records

Praise

The compact provides for public access to all meetings of the Compact Council and the minutes of those meetings.

Problem—Online availability

=>The minutes of Compact Council meetings should be available online, not merely in an office during business hours.

Section 5.2—Effect on Existing Rights

Praise

This section appears to be an attempt to assure that existing protections are not impacted by the compact. It could also be interpreted as part of the compact's general attempt to assure that sovereignty over water is retained in the basin.

Problem—Existing statutory law

Statutory — is not mentioned in the proposed language. The proposed compact should explicitly protect public trust rights and responsibilities.

Problem—Public trust

However, a central element of existing protection—public trust rights and responsibilities—is not mentioned in the proposed language. The proposed compact should explicitly protect public trust rights and responsibilities.

=>We suggest merging the proposed two subsections into one and adding a public trust component, by replacing all of the current language in this section with: "Nothing in this compact shall be construed to affect, diminish, enlarge, alter, or impair any rights or limitations established as of the effective date of this compact under state statutory law or common, including water and public trust, law, or any federal common or statutory law."

Section 5.4—Additional Laws

Praise

This section rightly assures that compact provisions do not interfere state capacity to prevent water pollution.

Problem—Existing laws protecting water quantities, levels, and flows

The compact should assure that its provisions provide minimum, not maximum, quantity, level and flow protections for the waters and the ecosystem of the Great Lakes – St. Lawrence River basin.

=>We suggest the addition of a new subsection to Section 5.4: "No provision of this compact shall be interpreted to diminish existing (or hereafter enacted or issued) protections afforded water quantities, levels, or flows by state statutes, regulations, or administrative procedures, policies, or guidelines."

COMPACT ARTICLE 7

AUTHORITY TO COLLECT DATA

Problem—Definition of existing withdrawals

The compact agreement is intended to cover only new and increased diversions and consumptive uses of water within the Great Lakes basin. However, the agreement contains no definition of existing withdrawals by which the signatory parties could clearly define an increased withdrawal. The plain meaning of the term would seem to be limited to the amount of water physically withdrawn during the year in which the compact goes into effect. But this could unfairly understate the true amount of existing withdrawal for users whose use is intermittent and whose "existing" withdrawal is in fact a withdrawal made in the recent past. It is also likely that withdrawers will argue that an "existing withdrawal" in fact has a non-plain definition: permit limit, infrastructure capacity, or any level of past withdrawal for any purpose.

=>We recommend inclusion in the compact of a modified version of the definitions of existing withdrawal implicitly included in article 203 of the international agreement:

=>"The quantity of an existing withdrawal shall be determined to be the largest amount of water withdrawn in the last five years, where such information is reliably available, or the most-restricted element of capacity of the existing withdrawal system, presented in terms of withdrawal capacity, treatment capacity, distribution capacity, or other capacity limiting factors. The capacity of the existing systems must represent the state of the systems on the effective date of this agreement."

Some system for determining the quantity of existing uses must be included for the basin environmental community to be able to support the compact agreement.

Section 7.2—Registration and Reporting of Withdrawals

Praise—Reporting

This section requires all diversions and all withdrawals of 100,000 gallons per day averaged over 30 days to be reported, for the first time providing all the states and the basin as a whole with basic information on most significant withdrawals. The section also requires the states to report the information to a central registry and the states collectively to make that registry available to the public. This fundamental obligation of the states to the public, promised in the voluntary 1985 Great Lakes Charter, went unfulfilled for ten years after 1994.

Problem—Reporting level

The 100,000-gallon reporting level is too high. Minnesota and Ontario require reporting in the 10,000-gallon-per-day range, and the compact should do so as well.

Withdrawal amounts below the 100,000-gallon level account for a relatively small portion of total basin withdrawals, but, when they take place from headwaters or other small water sources, they have the potential to have disproportionately significant impacts on the ecosystem.

Awareness of the locations and basic types of smaller withdrawals is essential to evaluating the cumulative effects of such withdrawals on sensitive ecosystems, especially in the context of larger withdrawals that may be proposed or already taking place nearby.

=>We recommend requiring registration for all new or increased withdrawals of 10,000 gallons per day or more averaged over 30 days.

Problem—Reporting at the small watershed scale

=>As part of the promise to empower the public with annually updated withdrawal information, the compact should require that each withdrawal be listed not only according to geographic location, but also by watershed at the smallest scale, usually sixth-order watershed, indexed by the given state.

This will give permitting officials and the public one of the most important pieces of context for evaluating a proposed water withdrawal: the current total state of water withdrawal at the relevant scale—the smallest scale, where any withdrawal has the most potential for impacting the ecosystem.

Problem—Reporting return flow

In order to enforce permit terms and a comprehensively inventory of basin water resources, the compact water withdrawal reporting system should include reporting on return flow.

=>In section 7.2.2, "Each registrant will be required to report the volume of the Withdrawal annually in accordance with applicable Signatory Party law," we recommend inserting "and Return Flow" after the word "Withdrawal."

Problem—Groundwater assessment

This section promises only the most general effort to understand the critical role of groundwater in the Great Lakes basin.

=>The compact should promise complete groundwater mapping of the Great Lakes basin on a specific timeline.

COMPACT ARTICLES 8 AND 9

REGIONAL REVIEW AND COUNCIL REVIEW OF PROPOSALS AND THE STANDARD OF REVIEW AND DECISION

AND

JURISDICTIONAL PROGRAMS AND THE STANDARD OF REVIEW AND DECISION

JOINT ISSUES

These two articles have so many common elements—the shared individual standards for judging water withdrawal proposals— that it is easier to treat them together before treating them separately.

Praise—General

The articles outline how, for the first time in basin history, a significant number of water withdrawal proposals will be subject to review on the basis of their efficiency and impact to the basin ecosystem. The articles also commit the states to a potentially ground-breaking new concept—that access to natural resources should not be conditioned only on the (usual purely theoretical) determination of little or no harm to the ecosystem, but also on a commitment to actually improving what has become a significantly impaired system.

Praise—Diversions

The treatment of diversions in articles 8 and 9 appears to be potentially as effective as the Water Resources Development Act veto in being able to prevent diversions. The requirement to return all non-consumed water to the basin is essentially an expression of the precautionary principle since any withdrawal is already required to cause no significant impact to the ecosystem. As a common-sense hedge against our uncertain ability to determine impacts—and therefore legally justified despite its arguably disparate impact on diversions and in-basin uses—the return flow standard promises a great deal of protection against harmful diversion requests while *not* being discriminatory. In most cases return flow is financially onerous, increasingly so with distance from the basin line, making the standard a powerful disincentive to diversion.

Furthermore, the combination of economic and hydrological characteristics of most uses appears to make diversion proposals under compact standards, especially the return flow standard, relatively unlikely. For example, the high consumption of many agricultural uses, which might generate relatively low return flow, is counterweighted by the inability of the agricultural sector to absorb much additional operating expense, possibly even for small, short diversions, but especially for large, long-distance diversions plus their return flows. Likewise the greater capacity of municipal supply uses to absorb additional cost is counterweighted by that sector's relatively low consumption, consequent high return flow, and correspondingly large financial burden paying for that return flow.

Finally, the definition of return flow seems to clearly require that returned water must be the same as the water withdrawn, implicitly to protect against the introduction of invasive species. This is another financially onerous burden on parties who might propose diversions. It would be very difficult for agricultural diverters to gather and return the same water, and municipal recipients of diverted water would have to construct separate distribution and treatment systems in order to avoid returning different water.

Problem—Implementing the standards

The overall system of standards in the compact agreement by which the above goals would be achieved are excellent in concept. However, they are lacking so much detail that they may be ineffective in practice.

Agreement negotiators have repeatedly declared their commitment to on-the-ground ecosystem protection from environmentally abusive withdrawal projects, and to a new system of water withdrawal rules that is consistent across a politically diverse basin.

Specifically the negotiators have said that the "Procedures Manual" appendix to the international state-provincial agreement, originally conceived as part of the compact, would be used as a basis for the specific regulations that will be written by the states and the Compact Council to implement the standards. However, nowhere in the compact do the Signatory Parties commit themselves to relying on the "Procedures Manual" in any way to write implementing rules and regulations.

The compact must commit the Signatory Parties and the Compact Council to some relationship to the international agreement's "Procedures Manual" as a basis for developing regulations implementing the standards. There are many possible ways to accept this request, expressing a wide range of degrees of commitment to reference the provisions of the international agreement.

=>We suggest that section 3.6—Rules and Regulations or article 5—General Provisions contain language declaring: "The Signatory Parties, individually and collectively, commit to using the Great Lakes Basin Water Resources Agreement's Procedures Manual as a significant source of guidance in issuing rules and regulations that give effect to the standards outlined in articles 8 and 9."

The compact agreement must contain some form of specific commitment to actually implementing the protective intent of the standards for the basin environmental community to be able to support the compact agreement.

Problem—No reasonable alternative

There appears to be an error in the proposed text of the standard for determining that there is no reasonable alternative to a proposal to divert water. The draft texts at sections 8.2 and 9.2 state that proposed diversions must demonstrate that, "There is no reasonable water supply alternative within the basin or the watershed of the Great Lake in which the Water is proposed for use, including the efficient use and conservation of existing water supplies."

Some proposals will likely seek to divert water entirely out of the Great Lakes basin. In such cases the reasonable alternative source for water should be sought not in a Great Lake watershed, but in that place outside the basin to which the diverted water is proposed for shipment.

=>Since intra- or extra-Great Lakes basin diversions would both require a seeking of reasonable alternative supplies in the diversion destination watershed, we suggest that that the text of sections 8.2 and 9.2 simply say, "There is no reasonable Water supply alternative within the watershed to which the diversion is proposed for shipment and use, including the efficient use and conservation of existing water supplies."

=>If for some reason the possibility of an intra–Great Lakes must be specifically noted, we suggest that that the text of sections I.A. and IV.A. say, "There is no reasonable Water supply alternative, for intra–Great Lakes diversions, within the basin or the watershed of the Great Lake in which the Water is proposed for use; and for extra-Great Lakes diversions, within the watershed or watersheds to which the diversion is proposed for shipment and use; in both cases including the efficient use and conservation of existing water supplies."

Problem---Rigorous consumptive use coefficients

The conservation and return flow standards are only as effective as the consumptive use standard or coefficient used to determine the amount of water that must be returned to the lake (we recommend major tributary) basin of origin. Consumptive use standards or coefficients that do not exist or are not rigorous, that is, an approval system that allows minimal water conservation measures, will result in larger requests of all kinds, may require approval of diversion proposals that could otherwise be denied, and overall result in a system that could one day be challenged as serving only commercial rather than environmental protection purposes.

The compact should contain a provision committing the Compact Council to 1) determining scientifically justifiable consumptive use standards or coefficients for varying sectors on a guaranteed timetable, and 2) basing the consumptive use standards or coefficients on strong conservation requirements, such that requested quantities are minimized for all proposed withdrawals and their required return flows are maximized (see our recommendations under "Problem—Conservation Goals" immediately below).

Without rigorous, defensible, consumptive use standards or coefficients, the return flow provision of the standards could, for certain uses, be turned into a loophole that makes diversions easy to obtain under the standards. This is obviously unacceptable.

=>We recommend a new section, perhaps included in Article 10: "Section 10.4—Consumptive use coefficients."

=> "1.The Compact Council will determine, no later that three years from the effective date of this agreement, a) a scientifically defensible consumptive use coefficients for major standard categories of water use, such as public drinking water supply, and b) a scientifically valid process for determining consumptive use standards or coefficients for non-standard water uses that is rapid, fair, and environmentally protective.

=>"2. After three years after the effective date of this agreement, the Compact Council shall issue no approvals for diversions or consumptive uses unless it has fulfilled the terms of section 10.4.1."

The compact agreement must contain some form of specific commitment to determining sectorspecific consumptive use coefficients for the basin environmental community to be able to support the compact agreement.

Problem—Conservation goals

Put another way, the conservation standard will be only as effective as the sector, watershed- or basinwide-specific conservation goals it aims to reach.

On the level of the individual project, even the international agreement's "Procedures Manual" fails to do more than list potential practices without providing any guidance on the basis of which a permit-issuer—or a panel attempting to come up with consumptive use standards or coefficients—could decide which practices would be required of a given applicant and how intensively they would have to be applied.

This is a recipe for basinwide inconsistency and overall ineffectiveness in the implementation of the standard that probably has more consensus than any other among both the states and the advisory stakeholders.

=>We suggest that the performance of economic sectors in the best-performing developedeconomy nations be used as referents for conservation goals (and their consequent consumptive use standards or coefficients), and that the parties commit to reaching these goals on specific timelines.

These goals, however arrived at, would be the background for researching the consumptive use standards or coefficients (and required return flow factors) that we suggest (immediately above) the parties commit to determining and implementing within three years.

Problem—Return to source watersheds

The return flow standard requires return flow only to the source Great Lakes or St. Lawrence River watershed. There is no ecosystem justification for the narrow ambit of this standard and great theoretical inconsistency in it. On the one hand, the compact requires million-gallon diversions from quadrillion-gallon lakes to be returned to the same lake—a sensible, precautionary line of initial protection. On the other hand, withdrawals from much smaller ground, stream and river sources—clearly much more vulnerable to complete losses of a given withdrawal quantity receive no such initial protection. While this diversity of treatment may be small enough to escape a future judgment that the overall agreement is discriminatory, it is well established that ecosystem impacts of alterations in natural flows are greater as the scale of the affected ecosystem gets smaller.

=>The return flow standard should require return to the smallest scale of watershed as defined by the U.S. Geological Survey at the point of withdrawal. The return flow standard should also

specify that the return flow should further be "as close as possible to the point of withdrawal," unless such a return that would for some reason be ecologically harmful.

=>At minimum the return flow standard should use the current definition of "source watershed," so that the return flow section's current "preference" for return flow to source major tributaries becomes a requirement.

Problem—Averaging

The averaging period of 120 days for determining the trigger levels for state and regional review are so high as to exempt a significant percentage of basin water withdrawers.

=>As has been the practice for nearly twenty years under the Great Lakes Charter, the averaging period should be reduced to 30 days.

Problem—Minimum permitting and reporting levels

Problem—Permitting and reporting level

The 100,000-gallon minimum permitting and reporting level is too high.

Withdrawal amounts below the 100,000-gallon level account for a relatively small portion of total basin withdrawals, but, when they take place from headwaters or other small water sources, they have the potential to have disproportionately significant impacts on the ecosystem.

Minnesota and Ontario permit withdrawals 10,000-gallon-per-day range, and the compact should do so as well.

Awareness of the locations and basic types of smaller withdrawals is essential to evaluating the cumulative effects of such withdrawals on sensitive ecosystems, especially in the context of larger withdrawals that may be proposed or already taking place nearby.

=>We recommend application of the standards to all new or increased withdrawals of 10,000 gallons per day or more averaged over 30 days.

Problem—Compliance with international agreements

We think that the Boundary Waters Treaty, a signal precedent for the basinwide management approach embodied by the proposed compact, should be given special status and specifically enshrined in the compact's compliance provisions.

=>Those sections of the appendix that require compliance with "all applicable laws, including international agreements,"—subsections 7 of sections 8.2, 8.3, and 9.2, and subsection 6 of section 9.3—should be edited to replace "international agreements" with "the Boundary Waters Treaty of 1909 and all other applicable international agreements."

Problem—Permit terms

=>The proposed compact should specify that permits will be issued for no longer than ten years, to allow easy adjustment of permit conditions should climate change effects or cumulative impacts prove to be taking place, or in case new information about the impacts of the withdrawal come to light.

COMPACT ARTICLE 8

REGIONAL REVIEW AND COUNCIL REVIEW OF PROPOSALS AND THE STANDARD OF REVIEW AND DECISION

INDIVIDUAL ISSUES

Section 8.1—Regional Review by the Great Lakes States and Great Lakes Provinces

Praise

This section and this article as a whole commit the states to participation in true regional decisionmaking, albeit without teeth because of the difficulty of creating enforceable arrangements across the international border. Rather than the pro-forma consultation letters required by the voluntary 1985 Great Lake Charter, this article sets up a link in the binding compact agreement with the formal discussion and voting process outlined in the voluntary international state-provincial agreement for water withdrawals proposals that rise to the level of regional review.

Problem—Integrating international and compact decision-making

Nonetheless, this section requires only that the Compact Council "consider" decisions rendered by the state-provincial review body. While we concede for now that it appears legally impossible to require the Compact Council to implement decisions made by the binational review body, surely it is possible to move closer to truly binational decisionmaking, the declared intention of the states in Annex 2001 and the compact's preamble, than the ineffectual "consider."

=>We suggest replacing the last line of section 8.1with: "The Signatory Parties and the Compact Council will grant the greatest legally permissible deference to the product of Regional Review.

=>"If a Signatory Party or the Compact Council nonetheless renders a decision at odds with that of the Regional Review, the Signatory Party or Compact Council will include in the record of decision a rebuttal to claims found in the Regional Review that such a decision is inconsistent with the standards.

=>If a Signatory Party or the Compact Council decision at odds with that of the Regional Review process is contested by an aggrieved person, reviewing authorities should be directed to grant equal weight to the Signatory Parties (or Compact Council) and the Regional Body as finders of fact."

Problem—Public participation

This section declares, "Regional Review of proposals may include, but not be limited to, notice and consultation and public participation."

=>Statements about the conduct of Regional Review, as distinct from means by the states commit to participating in Regional Review, should perhaps be left to the international state-provincial agreement, under the auspices of which Regional Review will be carried out.

=>Also, the declaration that Regional Review "may" include public participation is inconsistent with the compact agreement's section 3.7. We suggest language consistent with that section, so that the agreement requires public participation rather than allowing it to be optional.

Section 8.2—Council Review for Diversions

Praise-General

This section establishes an appropriately low trigger level (1 million gallons per day averaged over 120 days), key standards (return flow of an appropriate quantity of unconsumed water and improvement), and a good decision-making system (unanimity) for regional review for diversions, which have the generic potential for permanent damage to the Great Lakes – St. Lawrence River ecosystem because they involve total loss of water to the basin.

Problem—Standards

Key elements of the decision-making standard as applied to diversions that rise to the level of Regional Review are weak or vague. Since many of these standards apply to all withdrawals, we deal with them in our critique of both articles 8 and 9 collectively above.

Section 8.3—Council Review for Consumptive Uses

Problem—Trigger level

Withdrawals for using water inside the Great Lakes basin should be held to standards reasonably close to the standards for diversions outside the basin. The proposed compact subjects diversions of 1 million gallons per day or more, averaged over 120 days, to review by all eight states. It also requires diversion proposals of any size to provide an improvement to the Great Lakes. However, for water withdrawn for in-basin use, the compact not only initiates eight-state review at a much higher level—5 million gallons per day—but also uses an entirely different form of measurement—consumptive use (water loss) rather than mere withdrawal. Also, all diversion proposals are required to carry out improvement, but for in-basin uses improvement is required only for projects above the 5 million gallon loss threshold.

While some difference in treatment between the two types of withdrawal has traditional in international water law and might withstand U.S. Constitutional and international trade scrutiny, we believe that the degree of differential treatment represented by this section is so great as to entail significant legal risk.

The proposed compact's system could lead to very large disparities of treatment and very widely divergent end results for certain pairs of water withdrawal proposals that are in fact quite similar in their potential ecosystem impact. For example, a consumptive loss of 4.5 millions gallons per day averaged over 120 days 1) avoids Regional Review and multi-jurisdictional vote, 2) makes no improvement to the basin ecosystem, and 3) carries out mere unspecified "conservation measures." At the same time, a diversion of 1.5 million gallons per day, which entails one-third the water loss and therefore, considered generically, one-third the ecosystem impact, must by comparison 1) suffer the scrutiny of ten jurisdictions and the executive power of eight, 2) implement a much more rigorous "conservation plan," and 3) make an improvement. The generically much smaller ecological impact in this scenario generates much more rigorous treatment.

For another, much more problematic example, efficient municipal supply systems that lose just 10 percent and return 90 percent of withdrawn water would be treated exactly inversely to their likely ecological impact. An out-of-basin municipal applicant of this type would be subject to eight-state Regional Review when proposing a diversion of 1 million gallons per day, but an in-basin applicant of the same type would be subject to Regional Review only at the level of 50 million gallons per day, because it would take that much withdrawal to lose 5 million gallons at a loss rate of 10 percent. Yet in the former case the ecological insult to the basin is a loss of 100,000 gallons per day, while in the latter, 5 million gallons per day.

This is to say, the compact's currently proposed system allows the possibility of a fifty-to-one disparity in potential ecological impact before finally triggering similar treatment of like proposals.

We approve the negotiators' determination to subject diverters to high standards. But while we may be forced to live with the political necessity of applying somewhat more lenient standards to in-basin water uses, we are alarmed that the proposed disparity of treatment can be theoretically so large, perhaps justifying an eventual legal challenge to the legitimacy of the entire system. A gap of fifty to one is far too great to fall under the internationally recognized but limited leeway granted in-basin users over out-of-basin users. Such differential treatment would be prima facie evidence of discriminatory intent and seriously undermine one of the core purposes of the annex initiative as declared by the governors and premiers during the Annex 2001 negotiations—legal durability.

=>The problem can be addressed by changing the treatment of in-basin water uses proposed in section 8.3 by either: 1) lowering the level of water lost for in-basin uses that triggers eight-state review from 5 million gallons per day to 1 million gallons per day, or 2) changing the trigger level from 5 million gallons per day of water lost to 5 million gallons per day of simple withdrawal.

With either change, the disparity in treatment in the above municipal use example would fall from fifty to one to a more reasonable (if perhaps still legally risky) ten to one. In many proposals the disparity would be much smaller, with the aggregate disparity perhaps being entirely within legal tradition and most judges' or tribunals' sense of the reasonable. With less disparity of treatment, the new system would be better equipped to withstand a determined, well-funded legal challenge

that might arise decades hence.

Problem—Standards

Key elements of the decision-making standard as applied to consumptive uses that rise to the level of Regional Review are weak or vague. Since many of these standards apply to all withdrawals, we deal with them in a critique of both articles 8 and 9 collectively above.

COMPACT ARTICLE 9

JURISDICTIONAL PROGRAMS AND THE STANDARD OF REVIEW AND DECISION

INDIVIDUAL ISSUES

Section 9.1—Signatory Party Water Conservation Programs

Praise

This section includes a laudable commitment to overall conservation—implicitly directed at existing water withdrawals and uses—that is not formally required under the commitments of Annex 2001.

Problem-Lack of goals

Unfortunately, this general commitment suffers from the same deficiency as the overall water conservation standard for reviewing water withdrawal proposals: it lacks specific goals and is therefore likely to be applied inconsistently and for the most part ineffectively across the basin.

=>As we suggested above in our comments addressing both articles 8 and 9, "Problem— Conservation goals," the states should commit to sectoral conservation targets on specific timelines.

Section 9.2—Jurisdictional Review for Diversions

Problem—Exemption

This section exempts certain diversions—of less than 250,000 gallons per day averaged over 120 days, used in areas less than twelve miles outside the basin line, and supplied exclusively for public water supply where "adequate quantities" of potable water are not available—from the return flow standard.

=>There is no environmental justification for this exemption, it undermines the integrity of the agreement as a whole, and it should be deleted.

Problem—Other standards

Key elements of the decision-making standard as applied to diversions approved only by the states are weak or vague. Since many of these standards apply to all withdrawals, we deal with them in a collected critique of both articles 8 and 9 above.

Section 9.3—Jurisdictional Review for Consumptive Uses

Problem—Improvement

This section omits improvement as a standard to be applied to withdrawals under the large upper limit of 5 million gallons per day of consumptive loss. Improvement is a key commitment of the annex initiative. Annex 2001 declares in its core passage, Directive 3:

"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 withdrawal 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 on the following principles: . . . An Improvement to the Waters and Water-Dependant Natural Resources of the Great Lakes Basin."

As proposed in this section, the improvement standard will not apply to most proposed water withdrawals under the compact.

=>We strongly urge the states to include the improvement standard in some form for jurisdictional review of consumptive uses.

Problem—Improvement

The proposed compact should require that improvement actually take place as part of any approved water withdrawal projects. Strictly interpreted, the proposed compact as currently written merely requires that improvements be proposed.

Problem—Other standards

Key elements of the decision-making standard as applied to consumptive uses approved only by the states are weak or vague. Since many of these standards apply to all withdrawals, we deal with them in a collected critique of both articles 8 and 9 above.

COMPACT ARTICLES 10

ADDITIONAL PROVISIONS

Section 10.1—Cumulative Impacts

Praise

This section for the first time commits the region to assessing all the impacts of accumulated water withdrawals on the basin ecosystem. Further, the section specifies a timeline for making such assessments that is both certain and precautionary.

Problem—Scope and followup

Nonetheless, this section is unlikely to protect the basin from cumulative impacts except in the very long term and on the largest scale because it 1) addresses cumulative impacts only at the basinwide level, despite the fact that cumulative impacts are certain to occur first and most severely on the local watershed level, and 2) provides only for review of standards, whose revision would be the most indirect and likely ineffective means of reversing and preventing cumulative impacts.

=>We suggest that cumulative impact assessments be required at the level of major river watershed.

=>When such assessments reveal existing or reasonably predictable cumulative impacts, they should trigger the creation of watershed-specific water management plans that would provide guidance for water withdrawal permits issued in that watershed.

For ideas on how to best implement Annex 2001's cumulative effects commitments, negotiators may find it useful to consult G. Hegmann et al., *Cumulative Effects Assessment Practitioners Guide*, February 1999, prepared for the Canadian Environmental Assessment Agency and accessible at http://www.ceaa.gc.ca/013/0001/0004/index e.htm.

Problem—Consumptive use coefficients

We discussed the need for the creation of consumptive use coefficients to determine reasonable return flow percentages above, in our discussion of joint issues common to articles 8 and 9.

We repeat only the recommendation here, the suggestion of a new section, perhaps included in this article as "Section 10.4—Consumptive use coefficients":

=>"1.The Compact Council will determine, no later that three years from the effective date of this agreement, a) scientifically defensible consumptive use coefficients for major standard categories of water use, such as public drinking water supply, and b) a scientifically valid process for determining consumptive use coefficients for non-standard uses that is rapid, fair, and environmentally protective.

=>"2. After three years from the effective date of this agreement, the Compact Council shall issue no approvals for diversions or consumptive uses unless it has fulfilled the terms of section 10.4.1."

The compact agreement must contain some form of specific commitment to determining sectorspecific consumptive use coefficients for the basin environmental community to be able to support the compact agreement.