

July 11, 2008

The Honorable Irene Brooks
Chair, United States Section
International Joint Commission
1250 23rd Street NW, Suite 100
Washington, DC 20037

Dear Commissioner Brooks:

Thank you for the opportunity to comment on the Proposed New Order of Approval and Plan 2007. Throughout the study process, and in previous letters to the International Joint Commission, The Nature Conservancy has proposed five basic principles to guide decisions on water management practices and policies:

- Restoration and maintenance of natural flow regimes and natural variability to the greatest extent possible in a manner compatible with human uses;
- Restoration of hydrologic regimes that protect the full range of species, communities, and ecosystems that naturally occur within a watershed;
- Using site-specific information about species, communities, and ecosystems that naturally occur in a watershed as a basis for decisions when hydrologic regimes are actively managed;
- Adaptively monitoring changes in ecological systems when active management of hydrologic regimes occurs, with adjustments to protect and improve ecological integrity;
- Including a margin of safety in water management programs.

We commend the Commission for placing before the public an Order of Approval for regulation of the Lake Ontario/St. Lawrence (LOSL) ecosystem that reflects these principles. We urge the Commission to select Plan B+ as the regulation plan that best achieves the vision of the IJC's LOSL Study: "To contribute to the economic, environmental and social sustainability of the Lake Ontario and St. Lawrence River system".

Plan B+ restores the natural 15-30 year cycles of water levels and flows of the lake and river, with clear lake-wide benefits for wetlands, coastal habitats, and species. The key environmental performance indicators of the LOSL study, developed by respected U.S. and

Canadian scientists, demonstrate the benefits of an approach to water management that mimics the natural flow regime of the lake and river ecosystem.

The conclusions of the LOSL Study are consistent with a worldwide scientific literature regarding the typical effects of alterations to the hydrology of lakes and rivers: competitive dominance by robust emergent plants; reduced species diversity in riparian habitats; and exclusion of keystone species. These are the effects of 50 years of Plan 1958DD on the LOSL ecosystem. The benefits of even partial restoration of natural rhythms and flows, as in Plan B+, have been demonstrated in lakes and large rivers around the world. Plan 2007 does little to restore these natural rhythms and will perpetuate the current altered and degraded conditions.

While mimicking Lake Ontario's natural hydrologic periodicity, Plan B+ dampens the extremes that can lead to economic damage and operates within a range of lake levels that is similar to both Plans 1958DD and 2007. This similarity is demonstrated by the recent IJC materials, and by a comparison of the simulated 20th century ranges for these plans.

Of equal importance, the LOSL Study's economic indicators demonstrate the benefits of the Plan B+ approach for the entire region – improved hydropower production, improved conditions for shipping, improved access for recreational boating in most years, enhanced fish and wildlife populations – all of which translate into greater economic, environmental and social sustainability for the citizens of this ecosystem.

It is clear from the public hearings that certain misconceptions remain about lake level regulation in general, and Plan B+ in particular. We urge the IJC to continue to work to clarify such misunderstandings and promote the benefits of Plan B+.

One misconception is the apparent belief that shoreline erosion can be prevented or dramatically decreased by regulation of the lake. Erosion is a natural process that will continue, at slightly varying rates, no matter which regulation plan is in place. The Final Report of the IJC Study underscores this reality: "It should be understood, however, that shoreline and bluff erosion is inexorable, under any plan, ranging from 30-50 feet over the next 30 years, for sandy shorelines. Ultimately, maintenance of the existing shore protection structures will not be sustainable, under any circumstance, because of erosion and undercutting of those structures. Private property owners will have to gradually set back their protection structures." (Annex 4, page 236)

A second concern is the belief by some parties that Plan B+ will lead to much higher lake levels than current regulation or than Plan 2007. The level of 248 feet has been cited several times as a level that will lead to severe damage to property and public infrastructure.

However, the IJC study's simulation of the response of Plans 1958DD, 2007, and B+ to the water supplies of the entire 20th century shows that Plan B+ would not have allowed higher monthly average peak levels than either Plans 1958DD or 2007. Each of the plans would have reached 248 feet several times in the course of 100 years. In fact, a review of actual monthly average water levels in the late 20th century shows that this level was reached, and exceeded, under the current regulation plan, at least three times (1973, 1974, 1993, and closely approached in 1976). The economic impacts of these levels in 1973 and 1974 are well-known. Clearly, shoreline infrastructure and property need to be prepared for occasional levels of 248 feet, regardless of the regulation plan.

These periods of higher water do not result from regulation, but from the interaction between high supplies and the nature of the St. Lawrence River channel, which acts as a bottleneck restricting the rate of flow within the physical limits of its channel. All of the plans, including Plan B+, anticipate and adjust to higher water supplies and are very similar in their ability to restrain extreme high levels. It is clear that the original goal of restricting lake levels within an operating range of 243.3 to 247.3 feet is not achievable.

Within the constraints of water levels allowed by each of the plans, Plan B+ is much more consistent – and more similar to natural rhythms – in providing periods of higher summer peaks, which maintain the upper boundaries of wetlands and move sediment inshore, and in responding to periods of low supplies with several consecutive years of low summer peak levels. The benefits of these periods of low peak levels to maintaining the diversity of wetlands and rebuilding shorelines are well understood and documented.

The response of Plan 2007 to periods of low supplies – a maximum of two consecutive years during which lower summer peaks are allowed by this plan’s optimization algorithm – is clearly insufficient and unresponsive to the cycles of the lake. In addition, the damage that will result from Plan 2007’s reflexive lowering of fall levels, leading to lower winter and spring levels (this Plan maintains lower average fall and spring levels than even Plan 1958DD), is thoroughly discussed in the letter from NYSDEC to Russ Trowbridge, dated June 12, 2008. We concur with DEC’s conclusions.

The Boundary Waters Treaty of 1909 lists several public trust obligations in managing the waters of the U.S.-Canada border – navigation, hydropower, and municipal water are specifically mentioned – and the Treaty notes that the provisions for these interests “shall not . . . disturb any existing uses of boundary waters on either side of the boundary”. We suggest that a healthy environment and ecosystem was an existing use on both sides of the boundary at that time, and therefore is protected by the Treaty.

We particularly note paragraphs (a) and (d) in the 1956 Order of Approval which provide for the indemnification of all interests that may be injured “by reason of the construction, maintenance, and operation of the works” and require the works to be operated “as to safeguard so far as possible the rights of all interests”. Again, the needs of the ecosystem must be included in these interests, and provided the same protections as any other interest.


Plan B+ provides the necessary balance among these uses and interests, especially those considered by the LOSL study. It reduces the “extremes of stage” that require special action in the 1956 Order of Approval; it provides clear benefits to hydropower and navigation; it restores the beneficial uses of wetlands, shoreline habitats and species; it increases access in most years for recreational boating. This balanced approach has rightfully earned Plan B+ the support of a broad array of stakeholders, including the State of New York, the Province of Ontario, numerous hunting, fishing, and boating organizations and associations, many NGOs, and the larger Lake Ontario public.

It should be noted that Plan B+ has earned the support of the IJC itself, as reflected in the clear preference for this plan in the current documents, and in the path toward Plan B+ outlined in these documents.

To the extent that special provisions will be necessary for the protection of shoreline property with Plan B+, or for other concerns identified during the public comment period, The Nature Conservancy remains ready to assist development of creative approaches to shoreline management, or other concerns that may arise. We urge the International Joint Commission to select Plan B+ and to join with state and provincial agencies in implementing this plan in an adaptive manner, with regular reviews to improve performance.

Thank you for this opportunity to provide comments on this very important issue.

Sincerely,

A handwritten signature in black ink that reads "Kathy Moser". The signature is written in a cursive style with a large, prominent "K" and "M".

Kathy Moser
Acting State Director