

FURTHER TO AUTHORITY MEETING #5/08
To be held Friday, June 27, 2008

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CONSIDERATION OF REPORTS TO THE AUTHORITY

7. SECTION I - ITEMS FOR AUTHORITY ACTION

ITEM 7.9 - LISTED ON AGENDA AS REPORT TO FOLLOW

7.9 INTERNATIONAL JOINT COMMISSION

Proposed New Order of Approval and Plan 2007 for Regulation of Lake Ontario and the St. Lawrence River through the Moses/Saunders Dam at Cornwall-Massena (March 28, 2008)

105-113

TO: Chair and Members of the Authority
Meeting #5/08, June 27, 2008

FROM: Deborah Martin-Downs, Director, Ecology

RE: **INTERNATIONAL JOINT COMMISSION**
Proposed New Order of Approval and Plan 2007 for Regulation of Lake Ontario and the St. Lawrence River through the Moses/Saunders Dam at Cornwall-Massena (March 28, 2008)

KEY ISSUE

To report on the International Joint Commission's (IJC) proposed New Order of Approval and Plan 2007 for Regulation of Lake Ontario and the St. Lawrence currently in the IJC's public hearing/comment process until July 11, 2008 and the recommendation considered at the Conservation Ontario Council meeting held on June 23, 2008.

RECOMMENDATION

THAT Toronto and Region Conservation Authority (TRCA), as watershed/waterfront resource managers responsible with our partners for 62 km of shoreline, the nine watersheds that drain into Lake Ontario and the health of the shoreline ecosystem, endorse Conservation Ontario Council's resolution from its June 23, 2008 meeting in regard to the International Joint Commission's (IJC) "Proposed New Order of Approval and Plan 2007 for Regulation of Lake Ontario and the St. Lawrence River through the Moses/Saunders Dam at Cornwall-Massena (March 28, 2008), with emphasis on the strong support for Plan B+ - Balanced Environmental as the basis for regulation of outflows from Lake Ontario through the St. Lawrence;

AND FURTHER THAT the IJC, Conservation Ontario and TRCA's waterfront municipalities be so advised.

BACKGROUND

The IJC issued an Order of Approval on October 11, 1952, amended on July 2, 1956, for the construction of the St. Lawrence River Hydropower Project (Moses Saunders Dam, Cornwall). Regulation of Lake Ontario water levels and outflows in accordance with the Commission's orders began in 1960. The current plan, 1958-D, which has been in effect since October 1963, was designed for the hydrologic conditions experienced from 1860 to 1954. For that reason, 1958-D has not performed well under the extreme high and low water supply conditions experienced since that time. As a result, the IJC and its International St. Lawrence River Board of Control have had to adjust Plan 1958-D to better address changing needs and interests.

On December 11, 2000, the Commission issued a directive to the International Lake Ontario-St. Lawrence River (LOSL) Study Board, which it had appointed, to:

- i) review the current regulation of levels and flows in the Lake Ontario-St. Lawrence River system, taking into account the impact of regulation on affected interests;
- ii) develop an improved understanding of the system among all concerned; and
- iii) provide all the relevant technical and other information needed for the review.

The LOSL Study Board prepared “Options for Managing Lake Ontario and St. Lawrence River Water Levels and Flows” (March 2006). The IJC released the report for public comment until September 15, 2006.

At the Conservation Ontario meeting held on August 18, 2006, Council Resolution #C.W. 42/06 was approved as follows:

WHEREAS the International Joint Commission established in December 2000 the International Lake Ontario and St. Lawrence River Study Board to comprehensively evaluate options for regulating levels and flows in the Lake Ontario – St. Lawrence River System beyond the current plan 1958-D which has been in effect since October, 1963.

WHEREAS the Study Board adopted a Vision to contribute to the economic, environmental and social sustainability of the Lake Ontario and St. Lawrence River System and a Goal – to identify flow regulation plans and criteria that best serve the range of affected interests, and address climatic conditions in the basin.

WHEREAS the Study Board was directed to consider six interests – 3 interests under Plan 1958D (commercial navigation, municipal – industrial – domestic water uses and hydroelectric power generation) and 3 new interests (wetlands/environmental, recreational boating/tourism and coastal processes).

WHEREAS the International Joint Commission has initiated a five-step decision process and is requesting by September 15, 2006 public comment on the Lake Ontario St Lawrence River Study to assist them in their deliberations towards a draft decision.

WHEREAS Conservation Ontario advocates the need for implementation of “integrated watershed approaches” and the continued preservation and restoration efforts of the environment to ensure the sustainability of the Great Lakes Basin.

AND WHEREAS Conservation Ontario will have further opportunity after development of a draft decision to participate in Commission hearings on the draft decision.

THEREFORE BE IT RESOLVED THAT Conservation Ontario strongly support Plan B+ – Balanced Environmental as the basis for regulation of out flows from Lake Ontario consistent with the Study Board’s vision, goal and guidelines.

THAT predicted small increases in shoreline erosion and flooding under Plan B+ be managed, as discussed in the study, with measures employed by various levels of government, including the conservation authorities regulation of development within hazardous lands.

THAT Conservation Ontario supports the Adaptive Management recommendations as critical in maintaining the investment and benefit of data collection, scientific analysis and plan evaluation models to monitoring and performance review of a new operating plan and making informed adjustments in future.

THAT Conservation Ontario and the 11 Conservation Authorities along the Lake Ontario-St. Lawrence system will continue to support the Adaptive Management Approach and recommendations by providing monitoring information, analysis and commenting on future plan adjustments.

AND THAT this recommendation be forwarded to the International Joint Commission.

At Authority Meeting #7/06, held on September 26, 2006, Resolution #A208/06 was approved as follows:

THAT the report on the three selected candidate plans labeled A+, B+ and D+ and other recommendations outlined in the final report "Options for Managing Lake Ontario and St. Lawrence River Water Levels and Flows" by the International Lake Ontario - St. Lawrence River Study Board to the International Joint Commission dated March, 2006 be received;

THAT the Toronto and Region Conservation Authority (TRCA) endorse Conservation Ontario Council's resolution from its August 28, 2006 meeting with emphasis on the strong support for Plan B+ - Balanced Environmental;

AND FURTHER THAT the International Joint Commission (by the end of the public comment period - September 15, 2006), Conservation Ontario and TRCA's waterfront municipalities be so advised.

Current Status

The International Joint Commission recently released a "Proposed New Order of Approval and Plan 2007" for regulation of Lake Ontario and the St. Lawrence River through the Moses-Saunders Dam at Cornwall-Massena on March 28, 2008. The proposal reflects the IJC's deliberations on the regulation options by the LOSL Study Board as well as the extensive public comments including Conservation Ontario's and the consultation with the governments of the United States and Canada. IJC has held ten public information sessions and will hold ten "public hearings" and will accept written comment until July 11, 2008. The following public information sessions were attended by the identified TRCA staff:

- April 21st Information Session in Belleville (Larry Field/Gary Bowen – TRCA);
- April 29th Information Session in Port Jordon (Kelly Montgomery - Toronto Remedial Action Plan (TRCA) and Cassandra Bach - Aquatic Habitat Toronto (TRCA));
- May 8th – Information Session in Massena, NY (Larry Field - TRCA);

The public hearings to be held before the IJC Commissioners commenced on June 9, 2008 in Port Jordan. Conservation Ontario is scheduled to present its position at the public hearing before the IJC Commissioners on June 24, 2008 in Kingston. The Commission indicates that all public comments generated during the 90 day public comment period will be considered and the concurrence of the two federal governments will be sought.

The Commission's goal is to sign a new order by the end of 2008 and implement a new regulation plan shortly thereafter.

Summary – Proposed New Order of Approval and Plan 2007

Details of the New Order of Approval and Plan 2007 are set out in the IJC's documents which can be found at <http://www.ijc.org/LOSLdocuments/index.php>. In summary, the following five building blocks are included from the IJC's communications material and reflects the IJC opinions:

1. Proposed new Order of Approval

The proposed new Order provides the legal framework and authority for the continued operation of the Moses-Saunders Dam. The IJC indicates that the new order and plan provide for a more transparent and predictable regulation under a wide range of conditions. The following provides a guide to the key aspects of the proposed New Order of Approval as provided by IJC:

1. Complies with the rules and principles in Article VIII of the Boundary Waters Treaty of 1909, specifically the order of precedence of uses under the Treaty, which is:
 - i. Uses for sanitary and domestic purposes
 - ii. Uses for navigation and
 - iii. Uses for power and irrigation purposes.
2. Provides comparable or greater benefits to the interests identified in the 1956 order, which include:
 - Sanitary and domestic
 - Navigation
 - Power
 - Irrigation and
 - Shore property owners.
3. Reduces the risks of shoreline flooding and erosion on Lake Ontario by limiting higher water levels on Lake Ontario during storm seasons.
4. Takes account of the environment and recreational boating.
5. Takes account of new information and the wider range of water supplies that has occurred since 1956.
6. Requires the Commission to conduct a review after two years and to implement a regulation plan based on Plan B+ if the Commission determines that measures to mitigate the additional risk to all interests are in place.
7. Establishes an International Lake Ontario-St. Lawrence River Board to:
 - Manage the regulation plan
 - Set up a monitoring and adaptive management committee
 - Communicate with the public and
 - Carry out other duties for the Commission.
8. Requires the Board to assess system-wide risks in times of extreme high or low water supply conditions. The Board may then seek the Commission's consent to deviate from the regulation plan flows.
9. States that the Commission will develop a directive to the Board that addresses the need for deviations from plan flows during winter operations, emergencies, flood discharges from the Ottawa River, peaking and ponding, and other special short-term situations.

2. Regulation plan (2007)

After the conclusion of the International Lake Ontario-St. Lawrence River Study, the Commission requested additional work by study experts on a regulation plan that would allow occasional low water levels to provide environmental gains, retain high water level restrictions to reduce shoreline damages and maintain benefits comparable to those in the current Order. A new regulation plan, known as Plan 2007, is the result. In the opinion of the IJC, the proposed Plan 2007 has overall benefits for all interests, including the environment. Experts based this plan on a far greater range of water conditions than was considered in the 1950s, including drier and wetter conditions than have been recorded, and four climate change scenarios.

Specifically, the IJC claims that Plan 2007 provides for an increase in environmental benefits while also maintaining the same or improved level of benefits for property owners and the shipping industry.

3. Adaptive Management and the New Board

To help ensure that the expected benefits are realized and that needed improvements can be made in the long term, the Commission is recommending monitoring and adaptive management, including regular periodic reviews of available information. The governments of Canada and the United States have indicated their strong support for adaptive management and will actively participate in the further development of an adaptive management plan for implementation.

The newly renamed International Lake Ontario-St. Lawrence River Board, appointed by the Commission, will have broader responsibilities for monitoring and adaptive management and system-wide oversight of the Order and Regulation. As a part of its duties, the board will manage and coordinate increased communications needs.

4. Implementation

The proposed new Order provides for short-term discretionary deviations and emergency deviations. Short-term discretionary deviations are minor within-week deviations from the plan flow and are usually made up in the following week. They apply to such contingencies as hydropower unit maintenance or assistance to commercial vessels due to unanticipated low water levels. Emergency deviations are rare, but necessary under extreme conditions such as major power blackouts, major power dam shutdowns or ships sinking.

The Commission believes that, apart from emergency measures and short-term beneficial interventions, deviations from the flows determined by the regulation plan must be minimized to realize Plan 2007's benefits.

5. Public outreach

The Board will ensure two-way communications, and public understanding of the regulation process, decision, and impacts, as well as engagement in the monitoring and adaptive management program. The Board will establish a Communications Committee to implement a communications strategy and may, at its discretion, establish an informal group of public advisors.

The Commission also plans to establish technical and policy groups charged with overseeing monitoring and assessment and with providing communication between stakeholders and the board on matters related to adaptive management.

TRCA Assessment

TRCA staff assessment supports the points raised in the Conservation Ontario Report and presentation made to the IJC on June 24, 2008.

A key improvement over the existing Order is the separation of the Order and Plan which will allow the plan to be revised in future without reopening the debate on the Order.

The proposed Order seems to focus on the previous interests and only “takes account of the environment and recreational boating”. Given that these interests were added by the IJC to the study board’s list of six interests to consider, the treatment of the environment in the Order is insufficient.

The Order also requires the Commission to conduct a review after two years and to implement a regulation plan based on Plan B+ if the Commission determines that measures to mitigate the additional risks to all interests (i.e. primarily Lake Ontario southern shoreline development) are in place. This is reliant on the initiative of other levels of government without means to require that the governments fund or implement such an initiative. As the responsibility for implementation leaves the control of the Commission, it is our belief that mitigation is less likely to happen to the extent necessary to implement water levels that are environmentally acceptable.

The key differences of Plan 2007 to Plan B+ are as follows:

- Plan 2007 in terms of water levels generally keeps the status quo with slightly lower fall and winter levels and slightly higher summer levels. Overall, this plan provides less variability in levels. This variability is critical for re-establishing coastal wetlands.
- Plan 2007 provides marginal environmental benefits at best primarily in “wetland meadow marsh community”.
- Plan B+ is better for the environment with the greater water level variability and seasonality. The Lake Ontario and St. Lawrence shoreline provides a dynamic confluence of riverine, wetland, littoral, and lacustrine waters and habitats. It is within this system that conservation authorities (CA) are major landowners responsible for major wetland creation and rehabilitation projects, and resource managers responsible for this system’s health and contribution to a healthy Great Lakes ecosystem.
- Plan 2007 produces generally better results across all coastal interests by reducing high water levels during winter and spring storm seasons. However, the biggest benefit is in Lake Ontario with primary benefit to shore protection maintenance for those existing private property owners in the shoreline hazard and wave energy area primarily on the south shore of Lake Ontario. It appears the shoreline interests gain more protection than afforded by the current regulation Plan 1958-D with deviations.
- Plan B+ only performs poorly where existing development is in the shoreline hazard zone. The IJC has identified that mitigation of this limited extent of shoreline is possible with the partnership of the appropriate levels of government. The health of the overall river and lake environment should not be compromised because of this development.

- On commercial navigation, Plan 2007 does not produce the strong results that Plan B+ does for the seaway and good results elsewhere.
- Hydropower – Plan 2007 provides substantially lower benefits to New York Power Authority, Ontario Power Generation and Hydro-Quebec.
- Recreational boating – Plan 2007 produces slightly better outcomes for recreational boating, but still the smaller marinas under low water on Lake Ontario could experience a reduction of current regulation benefits.

The monitoring and adaptive management approach is key to accessing the benefits of a new regulation plan and future refinements. It is recognized that there is a need to secure other government funding, in addition to the Commission’s budget, to implement an adaptive management plan. Conservation Ontario and the 12 CAs could participate in the development of the adaptive management plan and offer monitoring data being collected within current budgets. Additional funding and partnerships may emerge in future as the new board and senior governments develop the adaptive management plan.

On implementation, the new Order provides clearer direction for the new board on short term discretionary deviations and emergency deviations. It is generally supported that deviations from the flows determined by the regulation plan must be minimized to realize the anticipated plan benefits.

The public outreach is supported through the proposed communication strategy which will improve the Lake Ontario – St. Lawrence public’s knowledge on the regulations process, decisions and impacts.

Other Positions

The Ontario Ministry of Natural Resources, the New York State Department of Environmental Conservation, New York State Department of State, New York State Assembly, and numerous advocacy and environmental agencies are rejecting Plan 2007 and supporting Plan B+.

In a May 6, 2008 letter to the IJC, U.S. Congresswoman Louise Slaughter, New York State, previously urged the IJC “to devise a final plan that contains criteria to mitigate potential flood and erosion damage along Lake Ontario’s south shore. I am disappointed that Plan 2007 fails to do so. I urge the IJC to meet with the State of New York and develop an environmental restoration and mitigation plan that will provide the necessary protections. As you have stated, implementing this kind of plan would allow the IJC to adopt Plan B+ which has been evaluated by the public and endorsed by stakeholders, including the State of New York and the Province of Ontario.”.

Conservation Ontario Review and Recommendations

The proposed Order of Approval and Plan 2007 was reviewed by Conservation Ontario and the 12 CAs (Central Lake Ontario, Credit Valley, Ganaraska Region, Conservation Halton, Hamilton, Lower Trent, Niagara Peninsula, Quinte , Toronto and Region, Cataraqui Region, South Nation and Raisin Region) along the Lake Ontario-St. Lawrence System. At Conservation Ontario Council meeting held on June 23, 2008, Resolution #C.W.31/08 was approved as follows:

WHEREAS the International Joint Commission (IJC) established in December 2000 the International Lake Ontario and St. Lawrence River Study Board to comprehensively evaluate options for regulating levels and flows in the Lake Ontario – St. Lawrence River System beyond the current plan 1958-D which has been in effect since October, 1963.

WHEREAS the Study Board adopted a Vision to contribute to the economic, environmental and social sustainability of the Lake Ontario and St. Lawrence River System and a Goal – to identify flow regulation plans and criteria that best serve the range of affected interests, and address climatic conditions in the basin.

WHEREAS the Study Board was directed to consider six interests – 3 interests under Plan 1958D (commercial navigation, municipal – industrial – domestic water uses and hydroelectric power generation) and 3 new interests (wetlands/environmental, recreational boating/tourism and coastal processes).

WHEREAS the Study Board recommended three plans (Plan A+, B+ and D+) and associated recommendations on mitigation actions, adaptive management, St. Lawrence River Board of Control, and public outreach activities.

WHEREAS the International Joint Commission has carried out further investigations and analysis on the public comments on the Study Board's plans and has released a new draft Order of Approval and Plan 2007 for public comment, through a hearing process and submission process by July 11, 2008.

WHEREAS Conservation Ontario advocates the need for implementation of “integrated watershed approaches” and the continued preservation and restoration efforts of the environment to ensure the sustainability of the Great Lakes Basin.

AND WHEREAS Conservation Ontario through its member Conservation Authorities has substantial interest in the environment and coastal wetlands as major land owners and resource managers on Lake Ontario and is concerned with the minimum environmental benefits of the proposed Plan 2007.

THEREFORE BE IT RESOLVED THAT Conservation Ontario commend the IJC for the significant improvements set out in the draft new Order of Approval and the commitment to an adaptive management program – a formal process for continually improving management policy and practices.

THAT Conservation Ontario does not support implementation of Plan 2007 either in the interim or long-term.

THAT Conservation Ontario continues to strongly support Plan B+ - Balanced Environmental, as the basis for regulation of outflows from Lake Ontario through the St. Lawrence with the IJC working with the other levels of government on concurrent mitigation plans and having the ability to consent to deviations in extreme high water periods to minimize shoreline loss until mitigation is in place.

THAT Conservation Ontario and the 12 Conservation Authorities along the Lake Ontario-St. Lawrence system will continue to support the Adaptive Management Approach as budgets permit.

AND THAT this recommendation be forwarded to the International Joint Commission before July 11, 2008 and present Conservation Ontario's position to the IJC Commissioners at the June 24th public hearing in Kingston.

RATIONALE

The previous study and recommendations to the IJC were consistent with Conservation Ontario's advocacy of "integrated watershed approaches and the continued preservation and restoration efforts of the environment to ensure the sustainability of the Great Lakes Basin.". They were also consistent with the 2005 resolutions passed by the Great Lakes and St. Lawrence Cities Initiative.

TRCA supports the Conservation Ontario approach to Plan B+ - Balanced Environmental as the basis for regulation of outflows from Lake Ontario through the St. Lawrence. This approach was also based on the IJC working with other levels of government on the preparation and implementation of a concurrent mitigation plan. In addition the IJC maintains flexibility to consent to a new Lake Ontario-St. Lawrence Board deviations during extreme high water periods to minimize shoreline loss until mitigation is in place.

As noted in TRCA's 2006 report, "Plan B+ - Balanced Environmental was the only candidate plan that consistently transforms and improves the diversity and productivity of the natural ecosystem (e.g. coastal wetlands), addresses species at risk legislation objectives, and represents an important step forward towards a level of ecological integrity that would otherwise be difficult to achieve."

The formal process for continually improving management policy and practices is supported. Data collected through the Regional Watershed Monitoring Program, Durham Coastal Monitoring, and Toronto Waterfront Aquatic Habitat Restoration Strategy (shoreline structures and habitat projects, i.e. Tommy Thompson Park wetland creation) within TRCA's current budgets would be available to contribute to an Adaptive Management Program. Additional funding and partnerships may emerge in future as the new Lake Ontario/St. Lawrence River Board and senior governments develop the adaptive management plan.

DETAILS OF WORK TO BE DONE

The comments and recommendations will be forwarded to the IJC by July 11, 2008 and also to Conservation Ontario and TRCA's member municipalities along Lake Ontario.

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