



**The St. Lawrence  
Seaway Management  
Corporation**

**Corporation de Gestion  
de la Voie Maritime  
du Saint-Laurent**

202 Pitt Street  
Cornwall, Ontario  
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August 29, 2013

**International Joint Commission**

Secretary, Canadian Section  
234 Laurier Avenue West, 22nd Floor  
Ottawa, ON K1P 6K6

Dear Commissioners

It is my pleasure to enclose The St. Lawrence Seaway Management Corporation's comments on the Plan 2014 for the "Lake Ontario – St. Lawrence River Regulation" as presented on July 18, 2013 at the International Joint Commission Technical hearing in Montreal. On behalf of The St. Lawrence Seaway Management Corporation (Seaway) and stakeholders, I would also like to extend our appreciations for the opportunity to share our perspective and expertise in water regulation on the Seaway system with the commission for the betterment of the proposed plan.

We are providing our comments within the prescribed time of August 30<sup>th</sup> 2013 using this electronic transmission and will also submit its content via normal courier to your Ottawa office.

Best Regards

Yours sincerely,

Jean Aubry-Morin

Vice-President External Relations

C.C.: Craig H. Middlebrook, Deputy Administrator, St. Lawrence Seaway Development Corporation



## **The St. Lawrence Seaway Management Corporation**

### **Comments on the International Joint Commission's Proposed Plan 2014**

The St. Lawrence Seaway Management Corporation appreciates the opportunity it had to participate in the Technical Hearing on July 18, 2013 in Montreal.

The St. Lawrence Seaway Management Corporation (SLSMC or Seaway) is a not-for-profit corporation responsible for the safe and efficient movement of marine traffic through the Canadian Seaway facilities, which consists of 13 of the 15 locks between Montreal and Lake Erie. The Corporation plays a pivotal role in ensuring that the waterway remains a safe and well-managed system, which it shares with its American counterpart, the Saint Lawrence Seaway Development Corporation.

The Corporation's mandate promotes efficiency and responsiveness to the needs of shipping interests, ports, marine agencies, and provincial and state jurisdictions.

### **Preamble**

Over the course of the last 13 years, the International Joint Commission ("IJC") has sought to devise a new water management plan, under which new interests (namely, environmental and recreational boating) are added to those already established within the present Order of Approval and regulation plan (1958DD).

Given that the IJC is a body created by the Boundary Waters Treaty ("BWT") of 1909, all of the actions undertaken by the IJC (and its various Boards of Control and associated governance structure) in executing the water regulation plan (currently 1958DD) have conformed to the provisions found within the BWT. The BWT provides an order of precedence that is exceedingly



clear, concerning how the interests specified in Article VIII are to be given priority, in resolving any conflicts that may arise (as per the excerpt below).

*The following order of precedence shall be observed among the various uses enumerated hereinafter for these waters, and no use shall be permitted which tends materially to conflict with or restrain any other use which is given preference over it in this order of precedence:*

- 1. Uses for domestic and sanitary purposes;*
- 2. Uses for navigation, including the service of canals for the purposes of navigation;*
- 3. Uses for power and for irrigation purposes.*

In proposing Plan 2014, the IJC is introducing new interests that conflict with the interests noted above. In considering the revised Orders of Approval, it appears to be inevitable that the interests noted in Article VIII will be compromised.

## **Observations**

The SLSMC is pleased to observe that the proposed Plan 2014 contains a revised and refined “M-limit” which more closely mirrors how the Seaway manages vessel drafts during lower water level conditions. The inclusion of a low-level threshold for Long Sault is also very positive. However, three operational concerns remain regarding Plan 2014.

First, Plan 2014’s objective to increase the variability in water levels greatly amplifies the risk of draft reductions for commercial navigation in the areas of the upper St. Lawrence River and on Lake Ontario. The resulting changes to water availability in the navigation channel are not negligible. Generally, compared to Plan 1958DD, a longer portion of the navigation season could be subject to draft reductions during low supply situations, and should draft reductions be required, they will exceed the level currently required.

In a dry year, as experienced in 2012, Plan 2014 would result in Lake Ontario dropping below chart datum (74.20m IGLD85) from mid-October to almost the end of the year. Comparatively, with Plan 1958DD, Lake Ontario remained above 74.20m throughout the said period. Note that at a level below 74.20m, the Seaway would have had to reduce maximum vessel draft by 8cm



(3"). Similarly, Lake St. Louis would have gone below 20.60m (IGLD85) at Pointe Claire in early November and for much of the remainder of the navigation season. Under 1958DD, with deviations, the Board was able to maintain the 20.60m elevation at Pointe Claire for the entire 2012 navigation season.

Second, the ability of Plan 2014 to perform adequately during consecutive years of low water supplies is worrisome. The analysis of the data shows that in consecutive years of low water supplies, Plan 2014 would have resulted in Lake Ontario water levels being significantly lower than those under plan 1958DD. Moreover, under Plan 2014, Lake Ontario would have required a much longer period of time to recover from lower water levels than is currently true under Plan 1958DD. Given that any incursion below 74.20m on Lake Ontario (Seaway limit) will trigger an 8cm reduction in draft on the Welland Canal, and a further draft reduction of 8cm on the Montreal to Lake Ontario (MLO) section (for a total reduction of 16cm on the MLO section), significant damage to commercial navigation interests appears to be inevitable under Plan 2014.

As an example, consider that during the low supply years of 1963-65, Plan 2014 would have resulted in Lake Ontario levels being below the 74.20m threshold for 51 quarter-months (QM) during the navigation season, as compared to Lake Ontario levels being below 74.20m for only 19 QM with the existing plan. Further, with Plan 2014, the minimum Lake Ontario level would have been approximately 22cm below that provided by Plan 1958DD.

Third, Plan 2014 will result in a greater risk of commercial navigation being curtailed due to high outflows as available data shows a 40% increase in the number of QM with outflows above 9900 cubic metres / second during the navigation season. However, this risk is not as grave a threat to commercial navigation as the risks cited above.

Given the above concerns, the implementation of Plan 2014 in its current state will have a significant negative impact on commercial navigation. As any cargo displaced from the waterway will end up being carried by rail or by truck, the magnitude of the modal shift and its related impacts cannot be underestimated. The end result is that Plan 2014, in its quest to improve the wetlands ecosystem bordering the Great Lakes / St. Lawrence Seaway may trigger a host of unintended consequences that bring harm to the broader environment. The prospect of higher energy consumption, increased greenhouse gas emissions, increased congestion on land, higher accident rates, increased noise, and higher road maintenance expenditures should not be underestimated nor ignored.



## **Issues Statements and Proposed Remedial Measures**

### **1. BWT's Authority (Article VIII)**

The IJC has employed language in its revised Order of Approval that grants it great latitude in managing the Great Lakes / St. Lawrence River. The draft Order of Approval states that decisions will be executed "consistent with other requirements". Given the introduction of a host of new considerations including the need to "enhance biodiversity" and promote the "resiliency of wetlands", the ability of the International Lake Ontario St. Lawrence River Board ("Board") to initiate deviations that will safeguard the interests of commercial shipping is unclear. No direct acknowledgement is provided within Plan 2014 that all decision making will be subject to Article VIII of the BWT, in terms of how established interests and their respective priorities will be respected.

The Canadian and U.S. federal governments should, perhaps via the issuance of a letter to the IJC, formally introduce any new interests to be considered. If it is the intent of the federal governments that any of the new interests take precedence over established interests, the BWT should be amended to formally recognize the new interests and their relative order of precedence, given the interests already established in Article VIII. This guidance would provide the IJC with an authoritative framework from which to work.

### **2. Inevitable Conflict While Attempting to Balance an Expanded Range of Interests**

Given Plan 2014's intent to allow more natural variations in water levels to improve the wetlands ecosystem on Lake Ontario and the upper St. Lawrence River, the stage is being set for conflict. While Plan 2014 will continue to moderate extreme water levels, the setting of water trigger levels at both higher and lower bands in the spectrum will inevitably lead the IJC to compromise one or more of the interests set out in Article VIII, in pursuit of its goal to improve the wetlands ecosystem.

The SLSMC submit that the process should be initiated from the opposite direction, wherein the IJC considers how much variability can be introduced in water levels without harming the established interests, such that wetlands can be enhanced. To enable the IJC to improve the wetlands ecosystem, a sensitivity analysis should be conducted to determine how far the lower and upper "trigger" limits can be expanded to allow for increased variations in water levels, without harming the interests established in Article VIII.



### **3. Quest for More Autonomy in the Future to Reshape Decision Making**

One must question whether the BWT provides the IJC with a mandate that includes the ability to “evolve” its approach to executing a given plan. The notion of “Adaptive Management” sets in place a mechanism that will grant the IJC progressively more autonomy to reshape Plan 2014 in the future as it sees fit, without the need to obtain permission from the Canadian and U.S. federal governments. While the IJC has committed to consulting stakeholders whenever any substantial changes to Plan 2014 and its framework are being considered, no definition of the word “substantial” is provided.

The concept of Adaptive Management requires a clear delineation as to when the IJC needs to seek a revised mandate from the Canadian and U.S. federal governments, to guard against (“adaptive”) changes that essentially constitute the creation of a new plan. The Canadian and U.S. federal governments should define in specific terms the range of any actions that the IJC can undertake, without the need for consultation with stakeholders. Any changes proposed that fall outside of these specific parameters should be subjected to a consultation process, as per established practice.

### **4. Less Responsive Decision Making Structure**

Under Plan 2014, the Board’s authority to manage water flows is limited to minor deviations. Moreover, the cumulative effects from minor deviations cannot result in Lake Ontario varying more than +/- 2cm from the course set by Plan 2014. If a major deviation is required, the Board’s role is reduced to simply making a recommendation to the IJC, which must grant its consent.

Whereas the Operations Advisory Group (“OAG”) could once directly advise the decision makers on the former International St. Lawrence River Board of Control, which had the authority to execute major deviations, OAG stakeholder experts will now have a distant relationship with the IJC commissioners who hold authority over major deviations. Given that managing water levels and flows necessitates a very nimble decision making structure, with direct input with stakeholder experts, the IJC is taking on an operational role that it is not well suited to fulfil.

As the current governance structure provided by 1958DD has provided effective management for the past 50+ years, the Canadian and U.S. federal governments should direct the IJC to preserve the Board’s ability to act as a “Board of Control”. This level of



authority, including the ability to undertake major deviations within the bounds set by the plan, will ensure a nimble and responsive governing structure.

#### **5. No Holistic Approach to Water Management / Adaptive Management**

Given climate change, and the risk imposed by consecutive years of lower water supplies, it becomes imperative that any approach instituted by the IJC be viewed holistically. Any changes in strategy affecting the upper Great Lakes portion, or the Lake Ontario / St. Lawrence River portion, will inevitably affect the entire system. One cannot overlook that decisions impacting Lake Erie could have a profound effect upon navigation within the Welland Canal, and Lake Ontario / St. Lawrence River. Thus, decision making should encompass the entire Great Lakes / St. Lawrence River body of water.

Moreover, any attempt at “Adaptive Management” must encompass all stakeholders and interests in a wider public consultation exercise. Sustainability by definition includes social, environmental and economic considerations. Consequently, any “adaptive” change in water management strategy must be subjected to a full and thorough evaluation, including any impacts on quality of life, environmental factors beyond wetlands management, and economic performance. Such an evaluation will ensure that a change designed to produce a given benefit does not trigger a range of unintended consequences, with a combined harm that outweighs the intended benefit.

To ensure that a holistic approach to water management (including any adaptive management) is present, all interests should be present at the various working group levels. The St. Lawrence Seaway Management Corporation and the Saint Lawrence Seaway Development Corporation should be represented on the Operations Advisory Group and the Adaptive Management Committee. Within the International Lake Ontario St. Lawrence River Board, Transport Canada (or its delegate) should be present to ensure that commercial navigation interests are factored into the decision making process.

#### **6. Current Seaway Navigation Season Not Recognized**

The St. Lawrence Seaway Management Corporation notes that Plan 2014 defines the Seaway navigation season as extending from quarter-month 13 to quarter-month 47.

In practice, the Seaway’s navigation season has extended from quarter-month 12 to quarter-month 48 for a number of years, and this reality should be recognized within Plan 2014’s framework and decision making rationale.



## Conclusion

For any extended time period during which water supplies are limited, Plan 2014 will amplify the drop in water levels, such that vessel draft will be severely compromised. Given the likelihood that climate change will trigger an increased level of volatility in precipitation patterns and levels, Plan 2014's design to increase the variation in water levels will result in significant harm to the viability of commercial navigation.

Should commercial navigation suffer a significant decrease in draft and, consequently, ships are forced to lighten their cargo payloads, ship operators will be faced with an increased cost per tonne of cargo shipped. The nature of cargo markets is such that a small change in pricing can trigger a shift of cargo from one mode to another. The potential for Plan 2014 to trigger a significant reduction in vessel draft during extended periods of low water supply brings about the prospect for a modal shift toward rail or truck.

It is important to note that marine transportation is the most environmentally efficient and the safest means of moving cargo. Any modal shift will usher in a host of unintended consequences, including higher energy consumption per tonne of cargo, higher greenhouse gas emissions, increased congestion on land, and a higher accident rate.

The present Plan 2014, in an attempt to improve the wetlands ecosystem could bring about unintended consequences that affect other areas of the environment, such that the total negative impacts outweigh the benefits conferred to the wetlands.

Finally, The SLSMC agrees that improvements can be made to the management of water levels such that the wetlands ecosystem can be enhanced. The Plan 2014, in its present proposed form, will have significant negative impact on commercial navigation during periods of low water, which are expected to be more frequent in the future. The SEAWAY is ready to work with the IJC to adjust the proposed plan and its governance affecting commercial navigation to improve performance of the Plan and achieve the environmental goals in a sustainable manner.