

PUBLIC MEETING

PUBLIC INTEREST ADVISORY GROUP INTERNATIONAL LAKE ONTARIO - ST. LAWRENCE RIVER STUDY

MEETING SUMMARY

DATE: Thursday, August 19, 2004
TIME: 7:00 P.M. to 9:15 P.M.
LOCATION: The National Yacht Club
1 Stadium Road
Toronto, Ontario

PARTICIPANTS:

Jack Blaney	IJC Commissioner (Canada)
John Ching	Hydroelectric
Doug Cuthbert	Study Board
Marie-Claire Doyle	Environment Canada
Stephanie Dumoulin	IJC Staff
Larry Field	Toronto Region Conservation Authority
Kathy Forde	Recording Secretary
Roger Haberle	Commercial Navigation
John Hall	Public Interest Advisory Group
Connie Hamilton	Information Management
Marc Hudon	Public Interest Advisory Group
Joel Ingram	Environment
Wendy Leger	Plan Formulation and Evaluation Group
Tom McAuley	IJC Liaison
Greg McGillis	IJC Staff
Syed Moin	Hydrology & Hydraulics
Ralph Moulton	Coastal
Peter Zuzek	Study Consultant
Attending Guests	(10 approximately)

1. INTRODUCTIONS

Larry Field welcomed everyone to the public meeting. Members of the Study team were introduced. Handout material was available for information. Approximately 10 guests were in attendance.

2. OPENING REMARKS

IJC Commissioner Jack Blaney provided opening remarks. The lakes and river system are fundamental to the welfare and economy of Canada. Transboundary water and air issues are resolved nationwide through the IJC treaty signed in 1909. The Great Lakes - St.

Lawrence River system is vast and extremely important. Regulation of flows is essential. This study is unique in terms of the whole ecosystem, its scope and public involvement, which will form a model in years to come. PIAG members are commended for their contributions. The exchange of public information continues to be a vital part of the study.

3. STUDY PRESENTATION

John Hall provided a presentation on the study. As a part of the Public Interest Advisory Group, the role of volunteer members is to represent various locations and interests concerning the International Lake Ontario - St. Lawrence River Study. The five-year study, initiated in 1999 by the IJC to review the regulation of outflows, is currently in year four. Both Canada and the United States are equally represented. On average, 85 percent of Lake Ontario water supplies come from Lake Erie outflow. The system is complex. Nature is unpredictable. The Ottawa River must be carefully considered when regulating flows on the St. Lawrence, particularly in the spring. Plan 1958D, implemented by the International St. Lawrence River Board of Control, was based on water supplies from the first half of the century. However, following a dry period in the mid-1960s and a wetter period in the 1970s deviations were needed. Deviation adjustments occur approximately 50 percent of the time to allow for changes in supplies, new interests and ice formation.

Technical Work Groups have been researching, collecting and studying data. The Plan Formulation and Evaluation Group has been running computer models to formulate potential plans for evaluation by the Study Board. Guidelines for ranking options include environmental sustainability, no disproportionate loss, flexible management, mitigation alternatives, climate change adaptability, transparent decision-making and adaptable future technology. Based on input provided by stakeholders and scientists, the decision process includes plans, criteria/metrics and performance indicators. Details are being refined to develop a variety of plans to best determine the minimum and maximum water levels desired most often and to measure the environmental, social and economic benefits. For example, wetlands require higher lake levels (75.50 m / 247.71 ft) once every 20 to 25 years for about a three-week period. In contrast, wetlands also require a very dry period with low lake levels (74.7 m / 245.08 ft) every 20 to 25 years for two years in succession with a gradual return to higher levels during the succeeding two years. These are the preferred levels for healthy wetlands to produce a greater abundance and diversity of fish. The first week of April is also important for fish spawning.

Minimum and maximum water levels preferred for coastal processes, beach access and recreational boating were illustrated with respect to frequency, severity and duration for the benefit of shoreline property owners, navigation and water uses. Impacts associated with beach access, coastal and recreational boater interests were also depicted. A small two-centimeter decrease on Lake Ontario creates a significant 23-centimetre increase downstream. Flooding has a significant impact on the south shores of Lake Ontario. Diverse interests are expressed at various times for different reasons. Ideally, a smoother transition between levels is preferred. Work continues to integrate performance indicators and to evaluate criteria. Various issues and interests are being addressed. Comments will be incorporated where possible.

Based on operations and deviations experienced with 1958D, plans are being evaluated. Environment plans, considered the most important component, continue to be entered into the computer model (Shared Vision Model) along with economic benefit plans, stakeholder plans and baseline plans to improve and meet new demands. Work will continue over the winter to develop recommendations for the plans that will be presented next year. In 2005,

alternative plans based on science and stakeholder input will be presented for consideration. Meetings are tentatively scheduled in June and July. In the fall of 2005, a report will be submitted to the IJC for their decision process. Numerous stakeholders are participating in the study. Contributions of past and present PIAG and Study Board members were acknowledged.

4. QUESTIONS/COMMENTS

Marc Hudon facilitated a question and answer session following the presentation. Toronto was connected with the Alexandria Bay meeting for an interactive audio session only briefly due to technical difficulties. As a consensus building process, public input is extremely important and will be considered in the study. Concerns were expressed on water levels, flooding, water source, environment, nuisance species, water taking, water uses, other studies and other issues. Recorded questions, answers and comments are appended. Accuracy of speaker names was based on audio clarity.

5. CLOSING REMARKS

Appreciation was extended to all participants for their knowledge and insight to various concerns. Public input is extremely important to the study. Although it will be difficult to please all of the people at all times, ideally a plan that satisfies most of the people most times is essential. The Public Interest Advisory Group will visit again in 2005. Comment cards were provided in the handout material. Study information is available at www.losl.org.

6. ADJOURNMENT

The meeting adjourned at 9:15 P.M.

PUBLIC MEETING QUESTIONS AND ANSWERS

Water Levels

- Q1. To what degree is the fluctuation of water levels that demands intervention and cross that with natural intervention? (Toronto - Joan Miles)
- A1. *Under natural conditions the lake would be higher than today. Control measures compress the total range. The natural range of Lake Ontario prior to regulation varied within six feet. Now, with regulations the range is targeted at four feet, which is generally met. Basically, the range has shaved one foot off the top and is one foot higher at the bottom. (Syed Moin/Ralph Moulton)*
- Q2. Can you control the depth of water? (Toronto - Unidentified Speaker)
- A2. *Lake Ontario depth is controlled by 1958D with deviations. This study is about reviewing these Orders to see if better criteria and a better plan is possible. All impacts are being reviewed related to the various interest groups. (Study Board member)*
- Q3. Perhaps we should clarify the amount of influence on the lake. With control structures in place how much does man alter the four-foot range? Do we control the entire four-foot range or only the extremes? (Toronto - Larry Field)
- A3. *The range under natural conditions was about six to seven feet but now with the dam it is down to four feet. During high flows the Board of Control simply shaves off the*

level so that 75.2 metres is not surpassed. If inflows are very low they cut back on the flows to reduce extreme lows. If the natural flow is higher than what the system can accommodate we go back to pre-plan conditions. (Syed Moin)

- Q4. Various interventions and approaches are being contemplated but are you working towards anything specific to help control the flow? (Toronto - Joanne Miles)
- A4. *We are not looking at physically changing the dams. We are looking at modifying regulations. The regulation plan devised 50 years ago needs some updating. The Board is deviating approximately 50 percent of the time to improve water regime to satisfy current interests. We have added the environment, reduced the range of highs and lows that produce degradation of the environment and have summarized findings of thresholds. Now, we are trying to devise a new plan that delivers on those desired levels and better satisfies the mix of interests. Interests will change over time. Given the desired water level ranges or thresholds, we continue to research the method for devising a plan that keeps levels within acceptable comfort zones, that maximizes economic benefits and improves the integrity of the system. We will report again next year. (Doug Cuthbert)*
- Q5. How do people in Trois-Rivières feel about variations? (Toronto - Unidentified Speaker)
- A5. *They are very concerned about various uses. Burdens have to be shared. People downstream are willing to sacrifice as long as the sacrifice is shared all around. However, we cannot disrupt the big players. Commercial Navigation has introduced voluntary speed reduction measures to reduce shoreline erosion. The shipping container industry has adapted to the river by building new ships to the actual configuration of the lower St. Lawrence. We hope these trends continue. (Marc Hudon)*
- Q6. What criteria are used to lower and raise the lakes? How quickly does it react? Who makes the decisions? When storms come across, water is being dropped all the way along. Can we follow the rain dropping? (Toronto - Stan Reptka)
- A6. *The St. Lawrence River Board of Control operates the regulation plan put in place 50 years ago. The Board, with support people, interprets the plan and directs the power companies to change the outflows. This is done on a weekly basis but can occur more frequently if needed. Flows can be changed hourly or daily but are not felt on Lake Ontario too quickly. The system is quite slow but it persists. Once it starts in one direction it takes a while to back it up. An increase of levels over a 24-hour timeframe for shipping in Montreal may take two to three weeks to see an impact on Lake Ontario. There needs to be a balance to avoid flooding in Montreal. The impact of change depends where you are in the system. Dams are controlled using very sophisticated systems. (Doug Cuthbert/Syed Moin/Marc Hudon)*

Flooding

- Q7. Why are there flooding problems at the south part of the lake? (Toronto - Stan Reptka)
- A7. *The lake is level. Only examples were used to show significant flooding levels around Rochester and Greece, N.Y. (Tom McAuley)*
- Q8. Flooding is a big concern. Flooding in Peterborough must be connected to the Great Lakes. Do the Great Lakes have some impact on flooding in the outlying areas? (Toronto - Stan Reptka)
- A8. *The lake currently averages a level of about 75 metres, measured by a network of gauges. Levels have been tracked for almost a century. High levels generally cause*

flooding. People have adapted to flooding but more people are building in areas prone to flooding. Transient flooding and other things have been reviewed but there is so much variation in supplies. Climate change indicates lower water supplies and lower lake levels over the next 100 years. Flash flooding over the past century has occurred but levels are still below average. The Great Lakes respond to trends of water supplies over three to four years. We are trying to develop flexible plans to adapt to changing conditions. Predictions are made using the best science. (Doug Cuthbert)

Water Source

- Q9. The source of water to the Great Lakes is of interest. Years ago, with no development the rain would go into the ground and down the rivers at a slower rate. Now, rain rushes down the rivers. This is a significant change. Have the studies taken into account the watersheds to show related impacts over the years? (Toronto - Jean Williams)
- A9. *No, but it was looked at previously by the Commission. There appears to be a trend, which would mean more water in spring and less in summer and fall but these are masked from variability in supplies so the Great Lakes do not respond in week-to-week inputs. This would affect smaller bodies of water. Drought or flashy water supplies will be tested against those supplies. (Doug Cuthbert)*
- Q10. Renewal of bulk water is a concern. I agree that the environment should be given a greater weighting and should never be secondary to economic concerns. On a website (address unknown), indicators connect fisheries to revenue. However, fish are only one class. More than fisheries need to be weighted. Comments? (Toronto - Kristen, Rattray Marsh)
- A10. *We do not want to convert environmental indicators into economic dollar values. Fisheries work relates to nursery habitat. Other indicators being used include birds and reptiles. We are looking at the integrity of wetlands. Although there are competing interests, many benefits are expected for nearshore habitat. We want to improve the environmental integrity of the system. We will look for balance and benefits to society and for the overall good of the system. (Joel Ingram/Doug Cuthbert)*

Environment

- Q11. Disproportional loss is a concern. We have a major modified system so we have to minimize that. Is there a mechanism to bring environmental matters to the forefront? Protection of the environment is most important. We need to return to a natural functioning system. Environmental issues are far more important and will be remembered 100 years from now. How do you rank the importance of the environment? (Alexandria Bay - Jerry Smith)
- A11. *The environment was introduced to the study as one of the additional interests. One principle is to promote environmental sustainability so we are not dealing with the environment negatively. We will not incur additional disproportionate losses. We are looking at the environment in a positive manner. (Gene Stakhiv)*
- Q12. When it comes to crunch time, power production for human consumption usually dominates environmental issues. If houses are falling in and people make noise a response is heard. The environment may have to make up for past abuses. The environment now has to be equal among equals. Comments? (Alexandria Bay - Unidentified Speaker)
- A12. *You are encouraged to look at the Shared Vision Model. (Bill Werick)*

Nuisance Species

Q13. What is being done to ensure we do not have additional pollution, like the zebra mussels brought in by ships? What is the government doing to prevent nuisance species from invading our waters that kill our fish and clog our intakes? (Toronto - Stan Reptka)

A13. *This study is not under the Great Lakes Water Quality Agreement and does not touch on water quality, apart from a few issues regarding the taste and smell of drinking water in Montreal. This interest is not the charge of the study. (Doug Cuthbert)*

Water Taking

Q14. The Georgian Bay Association has worked for the past five years on water level concerns in Georgian Bay. Over 4000 members are included. Research indicates that changes in the St. Clair and Detroit Rivers may be contributing to lower levels. The total volume of water taking is unknown but is being researched. Concerns continue to be investigated and completion of a consultant report is expected by October 2004. Until that time, it is requested that the IJC water levels study be put on hold pending further investigation on the influences that may be associated. Comments? (Toronto - Mary Mutler)

A14. *We have previously been in contact and concerns have been taken into consideration. Georgian Bay is seen as having clear clean water. As such, pressures concerning the withdrawal of water are expected. Concerning water takings, results from investigations initiated several years ago indicated that bottled water issues are not a concern relative to the level of the Great Lakes. The lakes are not losing any significant volume of water related to bottled water. Tankers and pipelines would present more of a concern. The Great Lakes states and provinces have stated a position against the bulk export of water, which is currently being addressed. Many steps and legislation are in place so this specific concern is not a relative issue to the study. This study is disconnected to Georgian Bay water concerns. (Doug Cuthbert)*

Q15. Is inflow into Lake Ontario not considered? (Toronto - Mary Mutler)

A15. *Yes. To see an increase in the conveyance would raise interest but levels happen slowly. A big slug of water would be an issue but because of the slow release there is not a great impact. (Doug Cuthbert)*

Q16. The range of unregulated levels remains an urgent concern to the people in the Georgian Bay area. Further investigation prior to finalizing regulations remains suggested. Comments? (Toronto - Mary Mutler)

A16. *The concern of impact will be noted. On September 20th a consultation session will be held regarding Annex 2001 of the study. Information is available at www.cglg.org (Doug Cuthbert)*

Water Uses

Q17. As reported in the newspapers, will cold water used from the depths of Lake Ontario to cool downtown offices have a significant impact on the lake? (Toronto - Jean Williams)

A17. *Toronto has developed a new intake system that draws water at 80 feet into the Toronto Island treatment plant for drinking and some for cooling and heating so there is a return of water. Concerns from the Toronto Region Conservation Authority focused on the temperature of water being returned to the harbour and the impact on fish. Full*

details and volumes are unknown at this time. This is being addressed under the Great Lakes Agreement, Annex 2001 regarding water intakes and diversions. (Larry Field)

Other Studies

Q18. How many other similar studies on the Great Lakes are underway and are they being coordinated? My concerns relate to pollution, zebra mussels and other fish dropped from tankers. (Toronto - Unidentified Speaker)

A18. *Three large studies are interconnected although independent public consultations are being conducted over the summer. These include the Lake Ontario study, seaway optimization and Annex 2001. Canadian and U.S. researchers will provide updates on the state of the Great Lakes at the SOLEC conference in Toronto on October 6 to 8. (Marc Hudon/Wendy Leger)*

Other Issues

Q19. The Ontario government mentioned that a generator might be added at Niagara Falls. If so, what will be the impact on water flows? (Toronto - Stan Reptka)

A19. *A four-year project starting in 2005 is suggested to expand facilities and build one additional tunnel. Minimum flows are required to go over Niagara Falls at all times. Half of the average flow must go over during daylight hours. Expansion will not have an impact on the flows or level of Lake Ontario. The amount of water remains the same whether flowing through the falls or through electrical generation. It is simply directed over a different path. (Ralph Moulton)*

Q20. Can we expect greater erosion of the falls? (Toronto - Stan Ruptka)

A20. *The falls have moved back over the years but there would be less scouring and less of an impact with this project. (Ralph Moulton)*

Q21. But don't some areas freeze in the winter? (Toronto - John Ruptka)

A21. *The flow over the falls does not freeze. (Ralph Moulton)*

Q22. I understand there is pressure to increase capacity to the Welland Canal. Have any comments been provided to the study underway? (Toronto - Unidentified Speaker)

A22. *We have recently briefed the review committee and provided information concerning water levels. There is a linkage, in terms of sharing information. Concerns are being considered. Any twinning of the canal would not be part of this assessment. (Doug Cuthbert)*

Q23. Are groups that are concerned with the potential diversion of the Don River consulting with Study Board members on impacts to Lake Ontario? Is anything being done downstream as a proactive measure to unexpected rapid changes? (Toronto - Unidentified Speaker)

A23. *Proposed realignment of the Don River will not have an effect on the study. Wet weather flows will not have an impact on lake levels. (Larry Field)*

Comments

- Environmentalists are opposed to economic benefits at the cost of environmental interests.

- We do not like extreme highs and lows.