

PUBLIC MEETING

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

MEETING SUMMARY

DATE: Wednesday, July 13, 2005

TIME: 7:00 P.M. to 9:00 P.M.

LOCATION: Belleville City Hall
169 Front Street, Sir McKenzie Bowell Room, 3rd Floor
Belleville, Ontario

PARTICIPANTS:

Doug Cuthbert	Study Board Canadian Co-Chair
Ian Crawford	Study Board
David Fay	Plan Formulation and Evaluation Group
Larry Field	Toronto Region Conservation Authority
Kathy Forde	Recording Secretary
John Hall	Public Interest Advisory Group
Elaine Kennedy	Public Interest Advisory Group
Wendy Leger	Plan Formulation and Evaluation Group
Tom McAuley	IJC Liaison
Greg McGillis	IJC Staff
Ralph Moulton	Coastal
David Orr	Recreational Boating
Serge Saint-Martin	Recreational Boating Co-Lead
Danielle Trudeau	IJC Staff
Attending Guests	

1. OPENING REMARKS

Larry Field welcomed everyone to the public meeting. Members of the Study Team were introduced. Approximately 29 guests were in attendance. Comment cards and handout material were available for information.

The intent of the public meeting was to present candidate plans. The importance of soliciting comments was highlighted. Input is representative of the various interests. The public consultation process is essential.

2. STUDY PRESENTATION

Doug Cuthbert provided an overview of the study. The purpose of the study is to look at potential changes to the Orders of Approval for regulation of water levels in Lake Ontario and the St. Lawrence River system. The current regulation plan was put into place when the seaway was built but has become dated. Development of a new plan is required to address current interests. Over 120 people including technical experts are involved in the study. Study Board members from both Canadian and U.S. jurisdictions are evenly appointed to ensure balanced representation.

Lake Ontario and the St. Lawrence River represent a complex system, which poses a challenge for balancing various interests. The natural climate is an unpredictable factor. Water levels in Lake Ontario have a dramatic impact downstream. A two-centimetre change in Lake Ontario can trigger a 30-centimetre change in Lac St. Lawrence and a 23-centimetre change in Lac St. Louis.

Over the last five years, sophisticated research has taken place. Experts have examined reference plans, studied implications and considered all interests to achieve balance in the development of various plans. External scientific and economic critics have reviewed the work in an attempt to reduce flaws and ensure a defensible result. Guidelines require that the plan contribute to ecological integrity, maximize net benefits, avoid disproportionate loss, be flexible in recognition of unusual or unexpected conditions, be adaptable to climate change and climate variability, be adaptable to future advances in knowledge, science and technology, and that decision-making be transparent and representative of various interests. Quantitative and qualitative evaluation was conducted. Plans not selected as candidate plans are being used for reference. Plan E, the natural flow plan, was designed as a benchmark for environmental issues. Three candidate plans most representative of various interests continue to be refined.

- **Plan A: Balanced Economic Plan** - Designed to maximize overall economic benefits, this plan provides some improvement for the environment particularly on the Upper St. Lawrence River. Losses would impact shoreline interests on Lake Ontario and the River. Benefits would be provided to the recreational boating community.
- **Plan B: Balanced Environmental Plan** - Designed to simulate more natural conditions and provide overall economic benefits, this plan improves the environment on the Lake and Upper River. Losses would impact shoreline interests with significant flooding potential around Montreal. Losses would also impact the recreational boating community, especially on the Lake.
- **Plan D: Blended Benefits Plan** - Designed for balanced performance with overall economic benefits and minimized losses, this plan has few changes from Plan 1958D with deviations for the environment. No overall losses for shoreline interests but some flooding potential. Provides recreational boating benefits.

Following summer consultations, final modifications will be made to the candidate plans. Results will be discussed with the IJC in the fall. Over the winter, the IJC will study results, conduct public hearings and hold government consultations to make a decision on the best plan for implementation. The closing date for public comments is August 05, 2005. Additional information is available at www.losl.org.

3. QUESTIONS/COMMENTS

Elaine Kennedy facilitated the question and answer session. Concerns were expressed related to the water levels, diversion, flows, Upper Great Lakes, flooding, regulation, forecasting, ecosystem, climate change, data collection, candidate plans, mitigation and communications. Recorded questions, answers and comments are appended. Accuracy of speaker names was based on clarity during the session.

4. CLOSING REMARKS

Larry Field thanked all participants for their contributions. The Study Board continues to deal with all interests and the many complexities of the system. Achieving a balanced decision in an attempt to make the best recommendation remains a challenge. Public input is essential. Additional comments can be submitted and are due by August 05, 2005.

5. ADJOURNMENT

The meeting adjourned at 9:00 P.M.

PUBLIC MEETING QUESTIONS AND ANSWERS

Water Levels

Q1. What was the highest water level since 1958? (Paul Young)

A1. *The highest water level since regulation began occurred in 1973 at 75.75 metres. (David Fay)*

Q2. The levels have been low in Lake Huron for a long time but the water in Lake Ontario seems to be higher for a longer period in July. Comments? (Cliff Back)

A2. *Yes, that is correct. It is still below average on Lake Huron. Lake Huron went two feet below average two years ago. Lake Erie has come up in the last year or two. Lake Ontario is a little below average right now. There has been a huge variation and a greater impact. It really depends of the slope of the shore. (Doug Cuthbert)*

Q3. Water is way down compared to the late 1990s. What is in the tool set besides Cornwall? (Peter Goddard)

A3. *Cornwall is it. (Doug Cuthbert)*

Q4. When the dam was built, did they raise the lake level? (Unidentified Speaker)

A4. *It is the only dam that reduced levels. Dredging was done when the dam was built. They wanted to increase the capacity and that is how they can compress the levels. They had to move houses. That is how Lac St. Lawrence was created. The level of Lake Ontario was not impacted. The range of levels was squeezed but the average level did not change. (Greg McGillis/Doug Cuthbert)*

Diversion

- Q5. I feel that the dams and hydropower are more of a threat to lake levels. The federal government is currently dealing with proposals for extraction of fresh water from Lake Ontario to the U.S. The impact is would be huge. Is this consideration accounted for in the study? (John Gallagher)
- A5. *This is a common question. At the request for diversion ten years ago, a strong recommendation against this action was made and since then the federal government of Canada has created opposing legislation. Governments have entered into an agreement not to support or enable diversions out of the Great Lakes. Controls are in place. This issue was not a requirement for the study. (Doug Cuthbert)*

Flows

- Q6. I presume the major flow is from Niagara Falls? (Peter Goddard)
- A6. *Approximately 85 percent of the water coming into Lake Ontario is from Niagara. (Doug Cuthbert)*
- Q7. Do sudden increases or decreases for demands in hydropower affect the water flow? (Peter Goddard)
- A7. *Peaking is always there. Hydropower plants try to peak a little bit. Niagara basically takes what the river gives them. They have reservoirs but that does not affect the supply to Lake Ontario. It is a local impact on the river. Effectively, they run every drop of water they can through the turbines except in excessively high flow situations. It is a matter of timing. (Doug Cuthbert)*

The facilities on Niagara and the St. Lawrence are run to take the water that is given to them. They run almost all the time and as much as they can. (Ian Crawford)

Power companies will peak at night when they know they will need power during the day. (Elaine Kennedy)

Upper Great Lakes

- Q8. Why are the Upper Great Lakes not involved in this study? (Cliff Back)
- A8. *The effects of the Moses Saunders Power Dam are not felt above Niagara Falls. It changes the water levels of Lake Ontario but there is no transfer of impact across the falls. (Doug Cuthbert)*

Flooding

- Q9. We experienced flooding in 1973 and do not want to go through that again. Which plan will prevent that from happening? (Paul Young)
- A9. *All plans have about the same maximum water levels, which are approximately 75.7 metres. (David Fay)*
- Q10. Although it is recognized that wetlands need sustained high water levels for improved health, the Conservation Authorities here are also concerned with reducing flood damage and keeping people out of the floodplain. Has the same level of effort been practiced on the U.S. side? (Brian Keen)

A10. Ontario and Quebec have a history of extremely effective regulations for building in the floodplains. As a result, over the past 50 years people on the Canadian side have been moved away from the floodplain, which has reduced flood damage. However, there are two different political systems. The politics and political science of the U.S. makes it more difficult. Property rights are treated much differently in the U.S. so the ability to control flooding problems on the U.S. side is more difficult. (Ian Crawford)

The Study Board on the U.S. side is taking advantage of the systems in place in Ontario and is seeking advice on mapping and shoreline protection in an attempt to integrate some planning techniques and adapt better shoreline management practices. (Larry Field)

Problems on the U.S. side are located outside of the areas of Rochester and Greece. These places that have been there for up to 50 years and some communities are even older. The bulk of the problematic areas are older developments. (Ralph Moulton)

Regulation

Q11. Since Niagara controls Lake Erie, why can't they level off the control of Lake Ontario with less fluctuation from Niagara? (Cliff Back)

A11. *There is no physical way to change the release of water out of Lake Erie down the Niagara River. Basically, the power plants take what the river delivers to them. There is no structure at the Peace Bridge area to control that flow. There have been suggestions that a structure be built because people on Lake Erie, Lake Huron and Lake Michigan have felt that water level fluctuations were too high and that they should have the same benefit of a reduced range as for Lake Ontario. A study by the IJC over 10 years ago concluded that it would be detrimental environmentally and economically and that the problems would be transferred down river. The more you modulate the flow of the Niagara River and change the level of Lake Erie, the more you increase the variation of water supplies in Lake Ontario. (Doug Cuthbert)*

Q12. There appears to be a misconception that water levels can be regulated very significantly. A statement should be made with respect to the minimal manipulation that is done and on any other important factors. Comments? (Manfred Cushing)

A12. *The variation of natural water supplies within the year and from year to year is going to create fluctuating water levels on Lake Ontario regardless. Controls are at the top and bottom ends to squeeze the range. With the dam there is a conception that there is far more control than is really the case. The regulation plans have only small differences. Any changes are marginal. Variation in the range is still in the order of one to 1.5 meters. Controls cannot sway from this or the impacts would be enormous. (Doug Cuthbert)*

Forecasting

Q13. Although there have been improvements in forecasting, are we not making improvements in controlling the extremes? If you can control the extremes, that is where we would benefit. Comments? (Unidentified Speaker)

A13. *Even though we know the levels are high as experienced over the last 30 years, we are constrained with what we can do to satisfy all interests. It is a matter of finding balance. In terms of flood damage and trying to reduce levels, it is difficult to do much more than the Control Board already does. (Doug Cuthbert)*

Q14. On a short-term basis, it is recognized what forecasting can do but if forecasting capabilities could be stretched it may allow for better control. Comments? (Unidentified Speaker)

A14. *Weather forecasting is accurate within a five-day range but long range forecasting months in advance offers little confidence. Technology has improved a little but is not good enough for advanced forecasting. A lot of time has been spent on this common concern. (David Fay)*

Ecosystem

Q15. My focus is on the ecosystem. Climate change is a crucial issue. Recognizing that the littoral zone is so important to aquatic reproduction, how well have you modeled into your forecast the climate change conditions that will take place? It is difficult to imagine how something so unique to the system could be modeled. How much of a tolerance level or safety component has been built into the model to ensure the ecosystem including the few wetlands that are left continues to function with the least amount of disruption? (Manfred Cushing)

A15. *We have tested each of the plans against different water supply conditions as historically received over the last 100 years. We have selected a large array of statistically generated water levels and picked sequences of extremes. We have also gone through the hydro change models and have tested the plans against potential climate change projections. We are charged with ensuring the plans are adaptable to those conditions. There will be significant impacts across the board if dry conditions are encountered and there is not enough water to satisfy downstream interests. (Doug Cuthbert)*

Q16. I have sailed the lakes for 40 years but my primary concern is the ecosystem. Comments? (Manfred Cushing)

A16. *The Board has spent the vast majority of time debating, discussing and researching the environmental attributes of the system and coastal aspects. Throughout the study process, it has been these two interests that have created the greatest conflict. A tremendous amount of time has been invested in debating these issues to solve any problems. Knowing that the fish cannot speak for themselves all aspects are taken in account and considered very seriously. (Ian Crawford)*

We have not had a broad based representation from environmental non-government organizations or from environmental interest groups. We have not been swamped by individual environmental concerns. (Greg McGillis)

Q17. Minimizing the impacts on the wetlands and littoral zones is very important. Comments? (Manfred Cushing)

A17. *Absolutely. This is a consistent message being heard. There are environmental gains but with a downside and loss to other interests. Some people do not want water levels raised at all and consider higher levels as unacceptable. (Doug Cuthbert)*

The problem is that shoreline owners, recreational boaters and marina operators talk a lot more than the environment. The lack of expression from environmentalists over the course of the study raises concern. Only a few environmentalists have come out to the meetings in comparison to shoreline property owners. (Elaine Kennedy)

Q18. What was the average annual fluctuation prior to human manipulation and its impact on the aquatic system of Lake Ontario and the St. Lawrence? (Barry Jones)

A18. *With regulation the average annual fluctuation from the top of the peak has increased.*

In the winter, we tend to draw the water level down with regulation. It is a concern identified by the environmental group. There are some impacts to various species because of that. Muskrats in particular are sensitive to winter levels. Higher winter levels seem to improve muskrat conditions and would provide more diverse wetland conditions. (David Fay)

Climate Change

- Q19. Are the scenarios in the models based upon average temperature increases of one or two degrees? (Manfred Cushing)
- A19. *Four different scenarios were examined. The uncertainty is in knowing how much and how fast the temperature will rise, which will depend on greenhouse gases. We have looked at a fairly optimistic scenario based on a relatively slow growth of greenhouse gases and pending effective Kyoto results. We are looking at an optimistic decrease of one percent to a drastic decrease of 25 percent of water supply coming into Lake Ontario. If extreme changes to water supplies are experienced, direct impacts on the ecosystem are expected regardless of the plan selected. (David Fay)*

Data Collection

- Q20. Have the models used remote sensing? With proper research, the areas affected where the land meets the water would be easily identified. Comments? (Francis Gatteau)
- A20. *Data collection is very detailed for key areas along the shoreline. Bathymetric and topographic land surveys include very detailed resolutions. Elevation data is included for the whole lake. Some data is based on existing data. Digital vertical photographs have also been used. The whole shoreline is in digital format. (Wendy Leger/David Fay)*
- Q21. The data seems flawed. It does not cover the entire shoreline. Supplementary data should be added to the shoreline atlas done in the 1970s. Comments? (Francis Gatteau)
- A21. *We do have digital data of the entire shoreline. Sensitive areas had to be selected due to budget restrictions within the study. (Wendy Leger/Elaine Kennedy)*
- Q22. Is there an actual map? (Francis Gatteau)
- A22. *Yes. Mapping is available here for viewing after at the meeting. (Wendy Leger)*
- Q23. Is there any data on the Bay of Quinte to indicate how quickly the bay reacts to manipulations in the Moses Saunders Dam? The Z-shape of the bay creates a dynamic characteristic. It is profoundly affected from the loss of habitat and wildlife species. Comments? (Barry Jones)
- A23. *There is not much lag time. Changes in the flow can occur weekly. The Bay of Quinte basically moves up and down with the levels of Lake Ontario. In the study we did not look specifically at those aspects. Separately, there may be some information through fisheries monitoring data. Water levels will change but water quality will not. Water temperatures in shallow areas will have some influence. (David Fay)*

Information on the rate of exchange may be available through work by Ken Minns on the phosphorus study. (John Hall)

Contact information can be exchanged following the meeting. (Elaine Kennedy)

Candidate Plans

Q24. As an environmentalist, I am concerned with the compromises between environmental and economic benefits. Where there are slight tradeoffs on ecosystem benefits between Plan B and Plan D are there any key elements that are particularly noteworthy? (Manfred Cushing)

A24. *The current regulation plan strives to reduce the range of highs and lows. Plan D does not make it worse but it does not improve it that much. Of the three plans, Plan B benefits the environment the most but there are tradeoffs relative to erosion and flooding problems. Acceptable tradeoff remains the question. Opinions on the tradeoffs are needed. (Doug Cuthbert)*

Q25. Don't the hydro companies complicate the plan? (Peter Goddard)

A25. *The two hydro companies operate the plant according to directives from the Commission. They have to be in compliance. They do a good job relative to following directions. (Doug Cuthbert)*

Q26. In the summary of plan results, where is the loss going? (Unidentified Speaker)

A26. *In economic terms, the interest group that is affected absorbs the losses. (Doug Cuthbert)*

Q27. In the final analysis after consultation when the final proposal is made, who gives the stamp of approval on the recommendation? (Manfred Cushing)

A27. *The Commission intends to go to the governments for their views before implementing the plan although I believe the IJC does have the authority to implement the plan independently. The Commission will also hold public hearings. (Doug Cuthbert)*

Q28. What was the main reason for rejection of the 1998 proposed plan and what is the likelihood of having no rejections for the new plan? (Ralph Boise)

A28. *There is an amazing investment of talent. Over 120 professionals, time and funds have been dedicated to the study so the expectation is to come out with a better regulation plan. We already have better candidate plans although it will be difficult to select the best since one does not excel over the other. The Commission will be seeking further advice in early 2006. On a best-case scenario, I expect that a better plan will be adopted and in operation by in the latter half of 2006. (Tom McAuley)*

The plan in 1998 was not implemented because it was viewed as not going far enough with respect to concerns. The plan was not acceptable to recreational boaters. Now the limitations are removed but it is still not easy to balance the system. It remains a challenge. It will be difficult to do better in all areas. (Doug Cuthbert)

Q29. An extreme amount of research and work has taken place. I see this like the Senate. Work will be presented and the Board will choose. I would like to see that you become part of the Board making the final decision to ensure work is not smoothed over for other reasons. Comments? (Harry Stevens)

A29. *I respectfully disagree. The study was absolutely needed. A dozen plans have been trimmed down to three. The Commissioners are sensitive to the needs for expert comments and will consult with members of the Study Board over the review period. It will not be easy to pare the three plans down to one. (Tom McAuley)*

The full range of views have been collected and presented including positive and negative input. (Doug Cuthbert)

The Commissioners take their jobs extremely seriously. They have been engaged and

are sensitive to the conflicts and challenges. Politics may come into play but the Commissioners are certainly listening. (Ian Crawford)

Q30. I am critical of the process in choosing a new plan and do not put a lot of faith in politicians. However, the IJC has always maintained the greatest amount of honesty and integrity. The Commissioners communicate with the people and have gained the highest degree of integrity. Many feel the IJC is the only organization to trust. Comments? (Manfred Cushing)

A30. *The same set of Commissioners has been involved throughout the study, which is beneficial. Since the lakes are not too high or too low we are in an enviable position. (Doug Cuthbert)*

Mitigation

Q31. The charts indicate positive gains to some interest groups. Is there any prospect of moving some of the money over to those who loose? A number of people are being penalized. Comments? (Ray Logan)

A31. *The hydro producers make big bucks. All three hydroelectric companies are publicly owned companies so the theory is that if they are making money, rates will be cheaper. (Ian Crawford)*

The charts indicate a shared resource. Costs cover several hundred miles of shoreline so it is difficult to pinpoint and transfer costs. Property owners perceive a loss through erosion, damage or repairs. It has been a topic of discussion. Others have raised similar questions. We will recommend to the Commission that mitigation be considered. (Doug Cuthbert)

While we are going through the process of public consultation, experts are still working on refining the candidate plans to make further improvements. When all input is gathered we hope to have less damage and fewer problems. Although we are talking in U.S. dollars it does not mean we are only talking about U.S. hydro. (Elaine Kennedy)

Communications

Q32. I am the only resident from a group of three-dozen in the Colborne area that was notified. The notice arrived yesterday. Some residents have home delivery and others have post office boxes. I will share the information with my neighbours. Comments? (Cliff Back)

A32. *The meetings were set over one year ago. Dates were advertised for three weeks on local television and radio. Regular reminders were posted on the website. Flyers were also dropped in the entire area. (Greg McGillis)*

Comments

- The ecosystem is a primary concern.