BRIEFING SESSION
INTERNATIONAL LAKE ONTARIO - ST. LAWRENCE RIVER STUDY

MEETING SUMMARY

DATE: Tuesday, July 12, 2005

TIME: 10:30 A.M. to 1:00 P.M.

LOCATION: First Nations Technical Institute, Administration Office
Mohawks of the Bay of Quinte
13 Old York Road
Tyendinaga, Ontario

STUDY PARTICIPANTS:

Doug Cuthbert	Study Board Canadian Co-Chair
Kathy Forde	Recording Secretary
Elaine Kennedy	Public Interest Advisory Group
Tom McAuley	IJC Liaison
Greg McGillis	IJC Staff
Danielle Trudeau	IJC Staff

TYENDINAGA PARTICIPANTS:

Peter Brant	Councillor
Velma Hill-Dracup	Councillor
Blane Loft	Councillor
Donald Maracle	Chief
Kristin Maracle	Staff
Roy Maracle	Councillor
Travis Sager	Summer Student

1. **OPENING REMARKS**

Chief Donald Maracle welcomed everyone to the meeting and provided native greetings. A roundtable of introductions followed.

The native community is extremely dependent on the Great Lakes system for wells and fishing. Water levels and the negative effects of water taking on the ecosystem are a concern. Under Aboriginal treaty rights, Mohawks of the Bay of Quinte have a right to the water. None have been surrendered concerning the Great Lakes system. Policy is intended to preserve the water supply but it is felt from other meetings that water taking is not properly coordinated and that policies are not strong enough, which allows for manipulation. Better controls are needed. Better Aboriginal representation at the IJC level is also needed. A request was previously made through Herb Gray to have a voice at the table for consultation. However, others

speaking on behalf of this community lack a strong voice, which has resulted in disappointment. Now, the Aboriginal people are better educated and know that concerns need to be heard. An obligation to constitutional rights and treaty relations is expected. Separately, a number of First Nations leaders will soon be meeting to discuss Great Lakes waters. Historically, it is important to remember that the water bears the Aboriginal language. Aboriginal rights to the water must be distinguished and not threatened.

2. **STUDY PRESENTATION** (handout)

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. When the seaway was constructed approximately 45 years ago, the International Joint Commission (IJC) was given responsibility to oversee the operation of the overall water management system. Although the regulation plan was revised in 1963, the plan has become dated and development of a new plan is required to address current interests. Study Board members from both Canadian and U.S. jurisdictions are evenly appointed to ensure balanced representation. First Nations communities have been engaged throughout the process. The IJC is a bi-national organization created under the Boundary Waters Treaty of 1909.

The original plan accounted for water uses, commercial navigation and hydroelectric power but current interests related to the environment, recreational boating and shoreline erosion are not addressed. Natural variation of water supplies is quite extensive. It is a complex system. 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, extensive research has taken place. Experts have examined reference plans, studied implications and considered all interests in the development of various plans. 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. Plans not selected as candidate plans are being used for reference. Plan E, the natural flow plan, designed to simulate more natural conditions and to maximize environmental benefits does not perform well with economic, coastal or recreational boating interests. As such, environmental objectives should be considered as a long-term management goal for the system. 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.

The preliminary report will be delivered to the IJC in the fall. The Commission will then consider the scientific, technical, economic and social results and will make a tentative decision on the preferred plan through consultation with governments, agencies and First Nations. The IJC concurrently has the authority to implement a new plan in 2006. Study Team members are currently in the process of presenting tentative plans to interested agencies, public groups and native communities affected by water levels to incorporate remaining viewpoints. The closing date for public comments is August 05, 2005. Additional information is available atwww.losl.org.

3. **KEY CONCERNS**

Wells

Wells in general are a problem. The community has a significant number of wells. The relationship between streams and wells has been studied. Under low water conditions wells do go dry. Approximately 600 have been studied and 20 percent are dry.

Groundwater

Groundwater can be located at a depth of 26 to 40 feet. Some is not drinkable. The community is short on water in the summer and fall. Water levels effect groundwater. Vulnerability is a concern. Low levels provide negative impacts to the ecosystem in general.

Environment

Environmental impacts are more serious than some people realize. A rare species of insects and birds in the Salmon River area are dependent on certain environmental conditions in order to survive. Any significant changes may be detrimental to survival. Water is needed for preservation of fish habitat. Prior to last year, we never saw the salmon flow all year round. Aboriginals have the right to a commercial fishery. Global warning is evident in the loss of trees and bees. Reckless contaminant spills and discharges must be avoided.

The community is opposed to the Richmond Landfill expansion. Considered one of the largest dumps in Canada, the landfill is located merely six kilometres northeast of the community. To gain attention, David Suzuki has been approached to consider doing a show. From earlier discussions with Herb Gray, a delegation was to be coordinated to deal with the level of contaminants that get into the watershed. Status is unknown.

Flooding

Flooding is not desired. It is recognized that benefits to the environment create risks for flooding. However, Chief Maracle cannot endorse a candidate plan that would encourage flooding to homes. The community connects with 12 miles of shoreline so many low areas exist. Impacts need to be fully understood. Liability for damages is a concern. Tradeoffs require careful thought. Advice is needed on fluxes in the highs and lows, on any elevations of concern and on pinpointing areas of concern. Information appears to be inadequate. The government is not quick to help when flooding occurs. Emergency preparedness must be considered. The island is also at risk for flooding in terms of recreation and tourism development.

Water Uses

The water and sewer plant requires upgrading and expansion. Discussions are underway with the provincial government to explore partnership opportunities for a 20-year growth plan. Water in the bay is essential for plant requirements. A phosphorus loadings study indicates that water levels should be appropriate for moderate expansion. Information on low levels during dry conditions should perhaps be examined to assist in reducing vulnerability. Water is essential for water and sewer plant operations. Mud at the dam is an issue. It does more harm than good. Exits and entrances need to be maintained.

4. **DISCUSSION POINTS**

The Bay of Quinte is designated as a vulnerable water body through the Remedial Action Plan (RAP). The purpose of the RAP initiative is to reduce contaminant levels in the Bay of Quinte. Many efforts have taken place towards achieving that goal.

Public Interest Advisory Group (PIAG) members are all volunteers who bring public perspective to the study through public meetings and newsletters. PIAG represents interests all around the Great Lakes and St. Lawrence River.

The technical experts and supporting volunteers offer knowledge and advice. They are non-partisan to the political issues.

Probable impacts need to be identified and communicated to the people impacted. Lack of notification could be considered negligent.

Whenever drought conditions are a factor, it is best to deepen the wells wherever possible to be prepared for low water levels.

The Moses Saunders Dam is the point of control at Cornwall/Massena.

Building permits in some geographic areas have been more permissive than others due to the history of water level conditions and can be further explored.

Regulation is intended to reduce flooding but it is important to remember that a reduction in the natural variation of water levels reduces conditions for rejuvenating wetlands so one preference impacts another. Computer programs run 100 years

worth of data scenarios to forecast conditions and impacts. Tradeoffs are needed between environmental and flooding interests.

Lower flows in the river and slightly lower levels for Lake Ontario are anticipated over the next 25 years.

The impacts of global warming need to be better understood. The plan should allow a liberal allowance for more rain, humidity, higher temperatures and extreme weather conditions.

Preference for a candidate plan is based on individual interests.

Representation of aboriginal communities at the IJC level was an item of interest. Concerns can be expressed through Henry Lickers on the Study Board. Tom McAuley remained after the meeting to discuss this issue.

5. **ACTIONS REQUIRED**

With respect to the flow of salmon expressed as an environmental concern, variations on the Salmon River are much more significant. To assist in reviewing data it was suggested that the Mohawk technical department provide statistics on Salmon River stream flows to Tom McAuley who was identified as the point of contact.

It was requested that data collections be further examined to study the effects on the Bay of Quinte, impacts on groundwater, sensitivities related to existing infrastructure and the shoreline, and probabilities of future water level scenarios to assist in defining future needs for the Mohawks of the Bay of Quinte. The Study Board will process a written request to ensure that efforts are coordinated through technical staff at the First Nations Technical Institute (Peter Brant, Kristin Maracle) and the Study Team (David Faye) to review existing data.

6. **QUESTIONS/COMMENTS**

Additional concerns focused on water quality, water levels, Georgian Bay, Lake St. Clair, shipping, hydropower, coal plants, fish habitat, forestry and diversion. Recorded questions, answers and comments are appended.

7. **CLOSING REMARKS**

Appreciation was extended for the opportunity to share information on the study and to gather input.

8. **ADJOURNMENT**

The briefing session adjourned at 1:00 P.M.

BRIEFING SESSION QUESTIONS AND ANSWERS

Water Quality

Q1. The study includes water levels and environmental issues but does not cover contaminants or water quality. Comments?

A1. The study addresses only water quantity not quality. The Great Lakes Water Quality Agreement (GLWQA) was implemented in the early 1970s. A separate initiative is underway to review the GLWQA, examine its effectiveness and renew that commitment.

Water Levels

Q2. Is there more water now than before?

A2. A lot of variability occurs in the climate. Natural variability in levels therefore occurs. In the last 40 years, there has been much more water than in the previous 60 years. Climate change is an issue. Variation is a function of the climate. Water levels follow supplies. People are sensitive to low levels. Natural supplies are difficult to control. Future levels are unknown but the past is an indication of trends

Q3. What is the high level for Lake Ontario?

A3. The average range for Lake Ontario levels is 75.3 metres to 74.0 metres for elevations above sea level. We try to keep a little more on the lake than on the river.

Q4. What is the depth of the St. Lawrence River?

A4. The St. Lawrence River is approximately 208 feet deep.

Q5. If water dropped on Lake Ontario would the river flow faster?

A5. No, levels would be lower.

Georgian Bay

Q6. Water levels in Georgian Bay are going down and low levels are a concern. Comments?

A6. The regime of water levels in Georgian Bay is not connected to this study. However, we are aware that people are very concerned about levels in Georgian Bay. Variation is a function of climate. Only moderate control is possible through the control dam at the outlet of Lake Superior.

Lake St. Clair

Q7. In Lake St. Clair, I understand that lower water levels were created from dredging that took place to allow access for bigger ships. What do you know about this?

A7. Basically over the last century, deepening of the St. Clair and Detroit River channel has decreased levels on Georgian Bay, Lake Huron and Lake Michigan by about one foot over a long period of time. Concern that the channel is continuing to erode and the flow of currents is continuing to scour the channel is now a contentious issue. Concerns do not impact water levels here because these issues occur above Niagara Falls. Separately, a three-year study will be conducted on the St. Clair River to examine

erosion issues.

Shipping

Q8. What do you know about the volume of shipping traffic?

A8. Shipping traffic is about the same as always. Expansion is not expected. At one point, views were expressed in the U.S. to increase the capacity of shipping but Canada does not concur and is assessing current shipping traffic and criteria.

Q9. As the country and population grows will the shipping industry grow?

A9. The Seaway Authority would likely wish to see this but there is no strong indication since the trucking industry is widely used. The forecast for commercial navigation should be based on current industry statistics. The port of Montreal is growing in terms of capacity so more traffic in that location would be expected but nothing affecting this area. Only 6.2 percent of shipping traffic comes through the seaway. The rest is between ports within the Great Lakes. Minimal shipping is going through the seaway.

Hydropower

Q10. In the Ontario budget speech, one goal was to ensure adequate power supply in Ontario. Tax implications are expected. Comments?

A10. We have not effectively evaluated all parts of the plan but recognize that hydropower is a clean method of generating power. Plants would likely remain and be upgraded but building new plants is not expected.

Q11. Will the government put pressure on Ontario Power with respect to energy prices?

A11. The power plants are best suited to a steady flow. Sudden or unpredictable changes impact the economic value.

Q12. Safety and security of infrastructure is a concern for society due to terrorism. We are downwind from two nuclear power plants. I understand security is not good. Comments?

A12. Power plant precautions have been reviewed since 911 on both the Canadian and U.S. sides. I cannot address that issue further.

Q13. Earthquakes are also a concern with respect to the integrity of power plants. Comments?

A13. Being on a fault line, we recognize the concern. Seismic maps have tracked historical earthquakes and can project events. Building does not occur without planning for natural disasters. However, the study does not look at this specific component. Power plants are repaired to last in perpetuity. Turbines can be rebuilt to improve efficiency and are economically critical. Economic activity outweighs many things. In Niagara, every turbine has been replaced. All facilities continue to be upgraded. The dam at Iroquois has the capacity to deal with emergency situations. We try to get balance and a net gain for all interests.

Q14. Utility companies are concerned with bankruptcy. Is money available for infrastructure?

A14. Debt repayment is ongoing. Results of our work will benefit the hydroelectric power.

Coal Plants

Q15. The number of coal plants is a concern. They contribute to poor air quality and draw

more water. Comments?

A15. Ontario is trying to phase out coal plants but alternatives are unknown.

Fish Habitat

Q16. Lowering of the lakes has caused problems for fish habitat. Comments?

A16. Yes, a change in water levels would change fish habitat. We have calculated this detail into the plans and have tried to incorporate water levels to accommodate optimum conditions.

Forestry

Q17. Does the forestry industry affect the tributaries? Are current forestry practices studied?

A17. No. Lake Ontario is so large that the degree of change would require a lengthy response time. Evaporation causes the greatest change.

Diversion

Q18. What mechanisms are in place to deal with large diversions of water out of Lake Ontario?

A18. The study does not address this issue. Separately, a study was done ten years ago concerning diversions and it was recommended to governments that diversions out of the basin not be allowed due to multiple concerns. The governments of Canada, Ontario and Quebec have legislation opposing Great Lakes diversion. Annex 2001 focuses on diversion. Public meetings are taking place this summer. Water intake will be addressed. Ninety-five percent of water taken must be returned so only five percent is unaccounted for. The 60-day review period is currently underway and is an excellent opportunity to voice concerns.

Q19. Is there a central authority? Perhaps a quota should be established and administered in order to maintain control. The cumulative effect is a concern. Comments?

A19. Networking is the best approach. The states and provinces have agreed not to divert water without the consent of each participating body. To date all requests have been turned down. Results from the bottled water industry indicate that all water taken is returned.

Comments

- It will be essential to monitor the performance of the plan that is selected.
- Constant review should be incorporated to ensure the plan adapts to changing conditions. Leaders of the countries need to keep the environment in high profile.