Transcripts

UNITED STATES & CANADA
INTERNATIONAL JOINT COMMISSION
PUBLIC INTEREST ADVISORY GROUP
PUBLIC MEETING

In the Matter of:

INTERNATIONAL LAKE ONTARIO/
ST. LAWRENCE RIVER STUDY

August 18, 2004

Transcript of Public Meeting held in the above matter at 10 West Orvis Street, Massena, New York on August 18, 2004, beginning at 7:00 p.m., pursuant to Notice. Connected via telephonic conference to Jordan, Ontario, Canada.

PRESENT:

KEN MACDONNELL - Mayor of Massena

TONY EBERHART - Study Manager

IRENE BROOKS - USIJC Commissioner

DAN BARLETTA - PIAG U.S. Co-Chair

MARCEL LUSSIER - PIAG Canadian Co-Chair

SCOTT TRIPOLI - PIAG Member

ELAINE KENNEDY - PIAG Member

CAROL SIMPSON - PIAG Member

JON MONTAN - PIAG Member & Facilitator, Massena, N.Y.

MARC HUDON - PIAG Member & Facilitator, Jordan, Ontario (Via Telephonic Conference)

BILL WERICK - PFEG, U.S.

EUGENE STAKHIV - U.S. Co-Director

ANDRE CARPENTIER - Study Board Member

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IJC-PIAG-MASSENA/JORDAN

P R O C E E D I N G

MS. KENNEDY: I would like to invite Ken MacDonnell, the Mayor of Massena, to open the meeting.

MAYOR MacDONNELL: Thank you, Elaine. Good evening, everyone. It's my pleasure to welcome everyone here tonight. In about an hour we're going to be connecting via conference call with residents in the Jordan, Ontario area.

This is going to provide us with a very unique experience, as they live on the shores of Lake Ontario between Buffalo and Toronto in a completely different environment than we have here in Massena, and I think it's going to be very interesting to hear the different viewpoints between the residents of this area and those of Jordan, Ontario.

I want to just give you a brief overview of why we are gathered here tonight. In 1909 the United States and Canada signed the Boundary Waters Treaty and established the International Joint Commission. This is the governing board for projects along the Great Lakes system. Nearly half a century ago, in 1956, the criteria for the Lake Ontario/St.

Lawrence River water levels and flow regulation was established, and they have been operating under those same criteria ever since.

In September of 1999 the International Joint Commission gave formal approval to a study to consider, develop, evaluate and recommend updates and changes to the 1956 criteria.

To facilitate that study, in December of 2000 the International Joint Commission created the International Lake Ontario/St. Lawrence River Study Board. And it is the Public Interest Advisory Group of that Board that is hosting this information gathering session here tonight.

The mandate of the Study Board is to undertake the studies required to provide the Commission with the information it needs to evaluate options for regulating levels and flows in the Lake Ontario/St. Lawrence River system in order to benefit affected interests in the system as a whole.

Their studies include reviewing the operation of the structures controlling the levels and flows on the lake, assessing whether changes to the order or regulation plan are warranted to meet contemporary and emerging needs, interests and preferences for managing the system in a sustainable matter, and evaluating any options identified to improve the operating rules and criteria governing the system.

The Study Board will provide options and recommendations for the Commission's consideration. In carrying out this mandate, the Study Board has been asked to integrate as many relevant considerations and perspectives into its works as possible to assure that all significant issues are adequately addressed.

The Public Interest Advisory Board is a volunteer group appointed by the International Joint Commission to insure effective communications between the public and the International Lake Ontario/St. Lawrence River study. And that is why we are here tonight.

It is the goal of the Public Interest Advisory Group to insure that all parties affected by Lake Ontario/St. Lawrence River water levels are able to express their concerns about those water levels and evaluate the options for regulating Lake Ontario outflows.

I am pleased that the Study Board has come to Massena to share their information and to hear comments from the public. We better than anyone know the dramatic consequences that can result from even modest changes to river flows.

The impact here in Massena on our Lake St. Lawrence is tenfold that of Lake Ontario. A one inch change in the level of Lake Ontario can impact water levels here by as much as two feet.

I thank you all for coming here tonight and encourage everyone to take advantage of this opportunity to express their opinion so that it can be included in their report. Thank you.

MS. KENNEDY: Thank you.
(Applause.)

MS. KENNEDY: It is a pleasure now to invite Irene Brooks, who is a USIJC commissioner and the lead on the American side to the study to bring greetings.

MS. BROOKS: Thank you very much. I think the Mayor sums it up pretty well. This is your meeting. I'm here to observe and listen and get a firsthand listen to what you have to say.

So, let the games begin.

MS. KENNEDY: My name is Elaine Kennedy, and I live in St. Andrews West, just north of Cornwall, and I have volunteered my time to participate in this study and to represent those people whose lives might be affected by the study decisions. I do not work for any of the agencies involved in the study.

The study, as the Mayor has said, is about water levels and flows in Lake Ontario and St. Lawrence River, and so therefore, we have invited you here tonight to hear what concerns you and to tell you how the study is doing.

This may be the first time you have come to one of our public meetings, or you may have talked to us before. We have heard from people around the lake and down the river, and know that there are conflicting viewpoints.

We know that nature has a huge impact, but regulations are needed to manage water levels. No one can forecast the weather precisely enough to guarantee when water levels should be raised or lowered.

One of the strongest impressions I've formed from working with this study team is how complex this lake and river system is. We really needed this research to give us the good science to base better decisions on.

The format for this evening is as follows. There will be about a 30 minute Power Point presentation. Then we will take a break for you to write down your questions. During that time we are going to link up with people attending the meeting, as the Mayor said, in Jordan, Ontario, at the west end of Lake Ontario.

Some of you have come to this meeting with one important question in mind. We encourage you to listen to the presentation, knowing that your question will be presented, not only to this audience, but also to the one in Jordan. And everyone will hear the answer. We will be alternating questions between here and there.

Since we want as many people in both places to ask their questions, we ask you to be brief as you can, and that the people answering your questions do so concisely. We have other guests here, who will be introduced to you during the presentation.

Making the Power Point presentation this evening is Dan Barletta, another volunteer of the Public Interest Advisory group who lives in Greece. He is the American co-chair of the Public Interest Advisory group. Dan?

MR. BARLETTA: Thank you, Elaine. First I would like to welcome you. As Elaine said, I live on Lake Ontario just outside Greece, or in Greece, outside of Rochester, New York. And I'm going to run through a few slides here, give you a brief overview of what's going on.

The International Joint Commission asked me to be part of the Public Interest Advisory Group, and our job, along with the other 20 members, 22 members of our group, are to

make sure your concerns and ideas are addressed in the Lake Ontario/St. Lawrence River level study.

As Elaine has said, we're all volunteers and we represent different locations and interests along the lake and down the river.

Over the last three years, we've held more than nine public meetings and 51 local stakeholder meetings with over 3,500 members of the public in attendance.

The International Joint Commission, as was mentioned previously, is responsible for the waters shared between the United States and Canada. It was founded in 1909 by Boundarys Waters Treaty, and in December of 1999 the International Joint Commission initiated a study to review the regulation of outflows from Lake Ontario through the St. Lawrence River to TroisRivieres, the area circled in red. You skipped a slide. All right. Here we go.

The area circled in red. Okay. At present we are in the fourth year of the five year study. There are over 120 people involved in the study. The International Joint Commission mandates that all its boards and studies must have equal representation from both countries.

I'd like to just briefly introduce a few people here. Starting at the top, you've already met Commissioner Brooks. Our U.S. study board co-lead, Gene Stakhiv, raise your hand. We have Tony Eberhart is the study manager out of Buffalo. Arleen Kreusch who's sitting at the table up here. She's our public relations person, along with Aaron Smith, who's her assistant. There are a number of members of the technical working groups here, but we're not going -- we'll introduce them as we get into the question and answer period. Members of Public Interest Advisory Group that are here:

We have Marcel Lussier, who is the Canadian co-chair from Montreal. John Montan from St. Lawrence County up here. Elaine Kennedy you've met. Scott Tripoli from down in Jefferson County. And Carol Simpson, there are you, Carol Simpson, newly appointed member from up in this area. And I think I have everybody, right. Okay.

When we get to the question and answer period, members of other technical working groups will join us by telephone, since their jobs will not let them come to this area tonight. So we hope with all these people here tonight, we'll be able to give you –- At least have the background to answer your questions.

Thinking about the water coming over Niagara Falls, I'm sure you're not surprised that up to 85% of the water coming into Lake Ontario during periods of high to average water levels in the upper Great Lakes comes from the other Great Lakes.

What was surprising to me to learn during the study was that the local watershed of Lake Ontario, and that doesn't count the water from the upper Great Lakes, is smaller than the watershed from the Ottawa River.

The light green area is the Lake Ontario local basin, and dark green is the Ottawa River basin. Not only does the Ottawa River have a bigger drainage area, it also has very few control dams, so it's harder to predict how much water from the Ottawa is going to flow into the St. Lawrence in the next week or so, especially in the spring. That's one -- one of the reasons why the flows from the Ottawa River must be carefully considered when regulating

the flows on the St. Lawrence River. Just this small fact gives an inkling to the complexity of the system.

The Moses Saunders Dam, here at Cornwall and Messina, is another factor in controlling water levels. Nature is the more unpredictable factor though.

The outflows through the Moses Saunders Dam are currently regulated using a set of written rules for releases that is called 1958-D. Although it takes into account the interests of water use, commercial navigation and hydroelectric power, the plan does not consider the needs of the environment, recreational boating or shoreline erosion.

Plan 58-D was based on the kind of water supplies we got in the first half of the last century. And after the extreme dry periods of the mid-60s and the wetter periods of the 70s the plan allowed deviations from the written rules.

These days Plan 1958-D is deviated from about 50% of the time to make adjustments for changes in supplies, accommodating the old and the new interests, ice formation in the winter. So we call the rules we use now, today, 1958-D with deviations. This plan is implemented by the International St. Lawrence River Board of Control that is also appointed by the International Joint Commission.

On this slide we see that the green area indicates the technical working groups have been in their study and data collection phase during the first three years of the study. The Plan Formulation and Evaluation Work Group is mandated to prepare computer models that will use all this data to formulate possible regulation plans for evaluation by the Study Board.

On this slide, the Study Board, are lists, abbreviated lists of the guidelines that the Study Board will use for deciding new alternate plans and criteria which best serve the public. The guidelines are being used to rank options for the International Joint Commission. We know we can't please all the people all the time, but the goal of the Study is to have a better -- is to have every significant interest do as well or better than they do now. And for a more complete listing of, or explanation of these guidelines, there's a handout on the table back here.

But, basically the guidelines, I'll just read from the slide, we want the Plan to be environmentally sustainable. We do not want any group to have a disproportionate loss. We want to have some sort of flexible management. We will discuss mitigation alternatives. We want the Plan to have, be adaptable to climate change. And we're trying to make this process transparent for the public. And we also want it to be adaptable to future technologies.

Okay. Based on the input we have received from the public and the scientists, the Study Team has written criteria, metrics, and performance indicators. These are being studied in order to come up with a variety of plans. As you can see in this slide, the team will keep refining these things, starting with criteria -- those are the water levels people prefer or want to avoid.

Next, they will develop plans that try to create those water levels more often. Then they will measure the economic and environmental benefits -- those are the performance indicators, to see if the new plans and criteria really help society.

You'd think that if you gave people the water levels they wanted you'd increase benefits automatically, but it doesn't always happen. And we'll touch on that in a bit, in a little while. First though let's clarify some of the definitions of these terms that we are sharing with you.

In the folder you received when you signed in, there is a list of the first cut of suggested evaluation criteria for plan formulation. These suggested evaluation criteria are not final; in fact, they are being adjusted as we go through this decision process based on study research. We hope you will review these criteria and comment on them.

The suggested evaluation criteria represent shared common objectives by the various stakeholders, such as not letting the water level get too high or too low, or reducing or accentuating the changes in levels and flows. But as these terms –- But all these terms will become easier to understand if we show you some examples.

Now we talked earlier about the extend of the Study. As we've mentioned this evening, we are paired with Jordan, Ontario, just outside Hamilton, which is about here. Let's take a look at the type of information that they are learning about at this moment that's relevant to their area.

I had talked about criteria. These lines, a lot of them on this slide, these lines represent criteria, the maximum and minimum levels that the stakeholders and researcher from the different technical work groups have come up with so far. Let me give you an example of what these lines mean. Let's look at the dark green environmental line at 247.7 feet.

The Environmental Technical Work Group has found that wetlands around Lake Ontario need higher lake levels about once every 20 to 25 years. So during periods of high supplies and lake levels, the Environmental Technical Work Group would like Lake Ontario to rise to about 247.7 feet at the time it would usually peak, although possibly a few inches higher than it would rise under the current plan, for about three weeks.

In a different climate situation, wetlands also need a very dry period about once every 20 to 25 years, so during periods of low supplies and lake levels, the Environmental Technical Work Group would like Lake Ontario to be held to just above 245 feet, or below for two years in a row, with a gradual return to higher levels during the succeeding two years. So most of the time no change is going to be needed except a few times a century, to allow the lake to go a little higher or a little lower, and this will give us healthier wetlands which we believe, and the researchers are still working on this part, in turn will give us greater abundance and diversity of fish.

Under normal climate conditions, the minimum wintertime weekly Lake Ontario levels should be kept above 247 feet -- or excuse me, 245 feet in most years.

In Lake Ontario the first week of April is important because of fish spawning. If Lake Ontario can be at 246 and higher in the first week of April, the fishermen will be happy when these young reach "keeper" size.

For each of these lines you saw on the previous slide on Lake Ontario we could give you a similar explanation, but I know you want to get to more specific about what's going on here. So let's get back to the geographics. Now let's look at this area, Lake St. Lawrence.

As you can see on this slide, the range in preferred water levels is not only quite wide, but they change during certain months. Now let's examine some of these lines more closely.

During the months of January through March, the water levels should not be higher than 241.14 feet or lower than 235-1/2 feet because of winter storms. It is important for shoreline property owners that the frequency, severity and duration of water levels not only be higher than 242 feet or lower than 238.8 feet from April through December.

Performance indicators are measures of economic and environmental impact. On these slides we kept the explanation of the performance indicators very brief. In your folders is a more complete detailed explanation of the performance indicators by each technical working group, and we ask you to take a look at those.

Okay. During the St. Lawrence Seaway navigation season, the frequency, severity and duration Long Sault levels below 238-1/2 feet and 237.86 feet should be minimized.

Why is it to minimums? If the level is below 238-1/2 feet vessels must reduce their speeds to maintain safe underkeel clearances. If the levels get down to 237.8 feet then the vessels must reduce the size of their load. Both of these situations increase the costs to the companies.

It's important that water levels not go below 234.9 feet or the water intakes for the municipalities on both sides of the lake cannot function. The shorewells of many private homes, both in Ontario and New York State would be seriously affected.

These are mainly economic but the social impacts on people with wells could be considerable.

This slide here shows the -- okay, these are the hydro power performance indicators. Okay. As you have seen in the slides about Lake Ontario and St. Lawrence, different interests want different levels at different times at different locations.

Please let us know what you think by contacting us by regular mail or e-mail. Our addresses for contacting us are in the material you have received. We will be summarizing all the comments and concerns expressed at these meetings this summer and thus plan to provide input to the Plan Formulation and Evaluation Group and the Study Board.

Your input will be evaluated and incorporated into the study where possible.

Regulation in the early 1960s began with Plan 1958-D, as I mentioned before. At that time it was the most advanced plan using the technology available at the time. Shortly after its use began, changes occurred in the climate.

First we had the extended drought period in the mid 60s and extreme precipitation in the 70s, along with demographic changes that included new stakeholders in the system. The Board of Control was allowed to deviate from Plan 1958-D to try and satisfy these conditions.

Plan 1958-D with Deviation, that's 1958-DD upon the slide, became the actual, although not formally recognized operation plan.

During this study, we are researching and developing plans based on economic rules, plans with the environment as the most important component, plans that stakeholders are giving us, and plans using information from past attempts to improve the system.

All these plans are entered into a computer model called the Shared Vision Model. For those of you who are interested in this type of computer modeling, Bill Werick, who is head of our Plan Formulation Group, has a computer set up in the back and he can let you see what this Shared Vision Model is all about. And you got the opportunity during the break or after the question and answer period.

Next year we will be returning here to let you know what 2005 plan options are for your consideration.

And here are our tentative meeting dates for next summer, when we will present alternative plans based on the science and your input. You can see we'll be in Messina here again next June.

The Public Interest Advisory Group, the Study Board, the Study general managers and the International Joint Commission liaisons will continue to meet with the Plan Formulation and Evaluation Group throughout this winter.

We will develop recommendations for plans to bring to you next summer.

In the fall of 2005, our report will be submitted to the Commissioners of the International Joint Commission for their decision process.

Over the last three and a half years, many people have been involved with the Public Interest Advisory Group. They have all been volunteers who are interested in the Lake and the River. Some for a variety of reasons have been unable to stay on the PIAG, but you will see their names along with my name and the other members of the PIAG here tonight on this list.

On this and the next slide, you see the names of the Study Board members, some of whom have also not been able to stay on the Study Board. You'll see their names along with some of the Study Board members who are here tonight as we've introduced them.

And now for the question and answer period of the meeting, we'll be connecting by speakerphone with our counterparts in Jordan, Ontario.

And actually we're running ahead of schedule here, so we'll take a short break, give you an opportunity to write down your questions, and our technical experts from each of the groups are either here or in Canada, should be able to respond to the questions tonight.

(Off the record to connect telephonically to Jordan, Ontario.)

MS. KENNEDY: Ladies and gentlemen, I'd like to suggest that we all move sort of closer to the front so that we can hear better the questions and answers that are coming from Jordan. And I'm going to turn control of the meeting over to Jon Montan, another volunteer on the Public Interest Advisory Group, who will facilitate the question and answer period. Jon?

MR. MONTAN: Thank you, Elaine. Your comments and questions tonight will be recorded so that we can make sure they're taken into account throughout the progress of the Study. Can everybody hear me?

FLOOR: Yes.

MR. MONTAN: Okay. Please use the microphone when you pose your questions, or come make your comments, so that we can be heard by everyone. Please state your name and where you're from. There's the microphone in the middle of the room.

I would ask both the people asking questions and those answering them to be as concise as possible. That way we can have time for as many people as want to ask questions.

Our teleconference is supposed to end at 9:00 p.m. That's our target. You can, of course, stay afterwards if necessary and talk with us. If someone asks a question very similar to the one that you were planning to ask, please consider waiting until everyone else has had a chance to ask theirs, and then, if we have time, you could ask yours.

If for some reason your question is not answered tonight, we will try our best to get an answer for you.

Now, I guess Arleen is trying to finish the connection with Jordan, Ontario. This is going to be an audio connection, not a video connection. So we'll just hear them and not see them. Are we sort of ready? Okay.

MR. HUDON: Massena, are you there?

MS. KREUSCH: Yes, we're here.

MR. HUDON: Okay. I'm going to ask if there's a question in the audience here tonight in Jordan. Is there someone with a question about the presentation? Yes. Please give your name and your organization.

MR. ROACH: Chuck Roach is the name. I'm a riparian. Tell us why we have to jolt the waterway every 25 years. What happens when -- every 25 years, to bring it back to life?

MR. HUDON: Any one here have a answer? Yes?

MS. KREUSCH: Marc? Hello? We can't hear you. Can you please repeat the question?

MR. HUDON: Okay. We're going to try again. Please repeat your name and --

MR. ROACH: Church Roach, Beamsville, riparian. Why is the 25 year jolt needed to fix the water environment for the wildlife?

MR. HUDON: Did you get that, Arleen?

MS. KREUSCH: Yes. Why is the 25 years jolt needed to fix the environment?

MR. HUDON: Right on. And someone here is going to give an answer.

MR. INGRAM: Joel Ingram from Environmental Conservation branch. The periodic low water levels allow the seed banks in the soil to germinate, aquatic plants, seeds lay dormant in the seed bank until the soils are exposed and it's oxygenated.

At that point they germinate and when water levels come back up provide lots of habitats for fish and birds, as well as the high water levels help to control aggressive aquatic plants, such as cattail by flooding them out and opening up the area.

MR. HUDON: Did you hear the answer, Arleen?

MS. KREUSCH: Yes, we did.

MR. HUDON: Okay.

MS. KREUSCH: Thank you. I'll find out if there's a question from our audience on this side.

MR. HUDON: Go ahead.

MR. MONTAN: Okay. Thank you very much. By the way, this is Jon Montan. I'm facilitating here. Are you facilitating there, Marc?

MR. HUDON: Yes, I am.

MR. MONTAN: Okay, fine. Do we have a question? An initial question? If so, would you state your name and where you're from.

MR. FOSTER: My name is Dalton Foster. I am a --

MR. MONTAN: You might want to get quite close to the mike, just to be safe. Thank you.

MR. FOSTER: My name is Dalton Foster. I am the current president and technical advisor to the International Water Levels Coalition of the IWLC. This organization was founded in 1999. It was one that very much encouraged and worked very hard to try to get this study started.

And the first thing I would like to say is that I would like to commend the people, the volunteers who have worked on the study, they've worked very hard, they've done a very good job at collecting data, and starting to bring the information back together. And by the way, the IWLC went from those six initial members to over 920 members now.

Our particular question is going to be, is there -- besides all the technical working groups we have who've gathered the information and are going to bring it in, but who is going to do the independent evaluation of the organization of how the plan is going to be run, and who it's going to be run by, after the decisions are made?

We know that these decisions -- the treaty is 95 years old. The organization to run it was designed some, almost 50 years ago. And a lot has changed, both in socioeconomic changes, and in technology since then.

So the manner in which this plan is run is equally as important as the information and the balance that it achieves. So the main question is, if there is going to be some type of independent evaluation of how this study will be managed once a decision has been made.

MR. MONTAN: Thank you. Would anyone here like to field that question? Bill?

MR. WERICK: My name is Bill Werick. I'm the American chair of the Plan Formulation and Evaluation Group. And it's a good point that Dalton brings up.

I know the U.S. commissioners have asked as recently as the Toronto workshop for us to consider this. Basically the question is, this is, this study was asked to come up with a new regulation plan, a new set of rules, and new criteria. But as Dalton says, the way that those rules are managed after the study is over can also have a great effect on the success of the plan.

So the commissioners have asked us to think about institutional changes to the control board and the way that it's managed. And it's in a very early stage now. So we're looking for ideas.

But those kind of changes could include different forms of representation on the control board, better communication techniques from the control board, even things like adaptive management, where the plan resident staying rigid learns from monitoring of the expected results that we predicted from this study. So we're looking at it, but it's new and we're looking for ideas.

MR. MONTAN: Thank you. Marc, if you can hear me. We'll switch over to you for a question, or a comment.

MR. HUDON: Okay. I'll go ahead with question number two from Jordan.

MS. KREUSCH: Okay. Marc remind him to speak really loudly because we can hardly hear you here.

MR. HUDON: Right on. Okay. I have a gentleman here.

MR. CORBETT: Hello. My name is Bill Corbett, and I am a lakefront property owner here in Beamsville. And I was wondering if anybody has the knowledge to be able to tell us within the next 10, 20 years, can we expect higher or lower annual water levels than we've been seeing in the last three to five years?

We've had a little bit of a low water level on the shoreline properties for probably the last three to five years. Are we going to expect higher or level long term water levels?

MR. HUDON: Thank you. Someone here can give an answer. That's a tough one. Hang on a second.

MR. MOLTON: My name is Ralph Molton. Boy, do I sound loud. I work with Environment Canada. I'm on the coastal group. It's tough to come up with a good answer to that question. It really depends a lot on what we see as far as climate.

We -- as was mentioned earlier, when the plan was first developed it looked at the data prior to 1960, and then in 1964 we have a very, very dry period and the level dropped to the lowest it had been that century. Within about six or seven years it was at the highest level it had been that century, by the early 1970s.

If we get that type of a variation in supply or water levels through the Lake Ontario we're going to see the level continue to go up and down. The regulation plan that we're trying to develop will hopefully be able to modify those fluctuations somewhat, but if the rainfall and the evaporation continue to vary as much as it did over the past then we could see variations in the water levels.

One of the longer term concerns, too, is the impact that climate change might have on the lake levels. And the expectation is that if it has an impact it probably will push the water levels a bit lower. There won't be as much water coming into the Great Lakes system if climate change does have an impact.

Now that's not too likely to happen within the next 10 years but certainly 20 to 30 years we could start to see some significant impact from that.

Again, we're hoping to develop a regulation plan that's able to accommodate that and help us to live with that better, but that doesn't mean it will necessarily be able to fix the problem, if you will. We will still see variations in the water levels.

MR. HUDON: Thank you, Ralph. Back to you, Massina. Did you hear this?

MR. MONTAN: Yes, we heard it. I heard it anyway. Thank you.

Before we take our next question I just observed, in response to that question, that one of the slides in a previous presentation that was put out shows historic input into the system, pre-project and post-project, and it was quite a deficit compared to what's going on now, in pre-project years and post-project.

Now, of course, extrapolating those drafts into the future, whether it will peak and then go back down, or peak and fluctuate at a higher level, it's a little hard to say. But that data is out there if anyone is interested. Is there anyone else who has any questions or comments? Yes, sir.

MR. HOOPER: Hi. My name is William Hooper. I live in Potsdam but I keep my boat on Welsey Island, and my biggest concern is the rapid drop that happens right about now. Right now the water levels are fine.

I was just, spent a great and surprisingly sunny weekend out on the boat, but I know that within a month the water level is going to be so low at my dock that I'll have to paddle the boat away from dock, and by the end of September we'll have to pull it out of the water, or put it in the water, because we won't even be able to get to the dock. And I was just wondering why we can't keep the water levels a little higher a little longer into the season, and keep an extra month of useable time.

MR. MONTAN: Where is your boat again?

MR. HOOPER: Welsey Island.

MR. MONTAN: Welsey Island. That's quite a ways from the dam in Massena. Does anyone want to --

MR. HUDON: Would you repeat the question, please?

MR. MONTAN: Will he repeat his question? Maybe I'll repeat it for him. He has a boat at Welsey Island, and he says that typically later in the summer between now and the fall, the water level will go down, and he was wondering if the levels could be held higher longer during the boating season, is that correct?

MR. HOOPER: Correct.

MR. EBERHARDT: This is Tony Eberhardt. With the regulation plan the way it is right now, once the lake peaks, the control board tries to get rid of as much water as they can, prior to a time when navigation will be ending and ships will be trying to get out of the system from Montreal.

So, a lot of water is put into the system downstream and taken off of Lake Ontario but in a lot of cases that happens too rapidly and it causes problems for recreational boaters, especially in early and late September when they're trying to get their boats out.

So, when we look at a new plan we will look at a way to modify that so that the water levels once the lake is peaked drop off more gradually to retain water on the lake for recreational boaters.

That is a consideration. We're aware of that and we're trying to come up with something that will be an improvement over the existing plan.

MR. MONTAN: Did you heard that response, Jordan?

MR. CARPENTIER: Andre Carpentier, from the Study Board and also on the control board. When the lake peaks it is because you know the supply is going up more than the flow, and when it's starting to, going down the river, because the supply is going –- has reached its peak. So it's the gradual natural, you know, decreasing of levels.

If something, if we can stop that it means that we have to start to release the water going down, and then the problem will be downstream. It's the natural, you know, decreasing of supply than the levels. It's something natural.

If you look at the pre-project scenario you will see the same. And with the Plan we stop that a little bit but we cannot keep the water as high as it is in August until the end of September.

MR. MONTAN: Any other response to that rather profound question, why we can't make the water stay higher longer? Okay. Thank you. Let's get over to you, Marc.

MARK: Okay. I'll go ahead with another question here.

MS. MASOLSKI: My name is Maria Masolski and I'm owner on the lakeshore --

MS. KREUSCH: Marc, it needs to be louder.

MS. MASOLSKI: Louder? My name is Maria Masolski and I am an owner on the lakeshore of Stony Creek. The way that I just heard the gentleman that was asking about boating and that, it looks like we are not going to agree with the boaters because the boaters would like to have the water so high and we would like to have it low, because with higher water levels in the lake we've got erosion, we've got –- our properties, all the time, we have to fix them because of the high level of the water.

For instance, last five, six years our water is very high, especially now it's so high, it's about seven feet against our walls. So, it's way too high and I know that lots of these people here, they've got lots of problems with the high levels of the lake. So I don't think it's fair to have high water levels in the lake because of the boaters.

I'm sorry whoever has boats here that we will disagree, but we cannot have high levels because of the boaters. If you have a boat you go more towards the middle of the lake. I've never had a boat because we spend lots of money fixing our shores. So, that's what I said, and we would like to see the water levels go a little bit lower. And in the St. Lawrence River, they like to have over over there, the boaters, whatever. I don't, not to -- they would like to have high levels because of the boats, so it looks like we're going to disagree, half and half, or whatever, you know, but I certainly would not like the water levels so high. But I don't know if anything can be done. I have no idea.

MR. HUDON: Did you hear that well?

MR. MONTAN: Yes.

MR. HUDON: Good. Can someone here talk about the dips on the riparian side of the subject. If someone would say this about what the lady just said, maybe you can just explain a bit.

MR. FOSTER: This is Dalton again. Certainly that's one of the difficulties we have within this study is we're trying to resolve the different interests, both on the lake and on the river as well.

You're right, you've really identified what one of the major difficulties is, is what's good for one interest isn't necessarily what another interest would prefer to have. And the example of coastal properties and recreational boaters are just two of the interests where there may be some differences at times as to what would be preferred.

One of the things we are looking at certainly is the impact the water levels do have on shore properties, and erosion is one of the big factors. Not only the impact on the erosion itself but also on the shore protection. When the water levels are high, if the water levels were to be at a high level of time more frequently, then people who had shore protection, it might no longer be sufficient to protect their property.

So, it would be necessary then to build bigger protection which of course would be very expensive to do. So that's one of the things that we're looking at, as well as the actual damage to the erosion -- or erosion damage to the properties along the shoreline.

Right now Lake Ontario's level is about 15 centimeters above what it typically would be at this time of the year, its long term average level. I guess I shouldn't say above what it would typically be at, but at not much above the long term average.

It does fluctuate a lot from one year to another, as to how high it is at this time of the year. It's been running this year for several months now at about 10 to 15 centimeters above the average level.

MR. HUDON: One more intervention.

MR. McCAULEY: Just a clarification for Maria. Can you hear me in Massena?

MS. KREUSCH: Hardly. Talk louder.

MR. McCAULEY: Okay. One of the things that's happening here is there's also a seasonal cycle in the water levels and the question from Massena was related to the seasonal drop, as the water in the falls was narrowed, they were hoping for it not to go down as far from the summer highs.

Right now it's around the summer high, just a little bit below it. And they were hoping for longer water levels, closer to the summer level. Not levels above this.

MR. HUDON: That was Tom McCauley. Back to you Massena.

MR. MONTAN: Thank you. Next question, comment, if any. Don't be shy. Dalton?

MR. FOSTER: This is Dalton Foster again from the IWLC. One of the overriding questions we have, and we certainly have been aware that there are varying interests here that are in conflict with each other.

But what we'd like to do is to also get an answer to a much larger question than that, above all the interests. And that is that the Great Lakes basin, the aquifers, the watershed, etc., is the largest and greatest reservoir for fresh water on the planet. And back say 50 to 100 years ago, the water that went from that basin out to the Atlantic Ocean was regulated by the St. Mary's River and the St. Lawrence River and it was regulated in a natural manner. And it was regulated in the manner that Mother Nature meant it to be regulated. So, the volume of water leaving each year and going to the ocean had a really good, real time regulation plan in place.

Since we've made modifications and started regulating water on Lake Superior and Lake Ontario we have had human decisions about how much water was going to be released from that water basin down to the Atlantic Ocean. And what we really need to do is to say, is this, in this new plan, is there going to be an accounting system such that whatever amount of water would have been released from the Great Lakes basin to the Atlantic Ocean, at least from, like on a yearly basis or something like that, that that is going to be accounted for, and that we don't come up with a plan, and that we don't start making decisions that's actually going to dump a lot more water out into the ocean or less water than was intended.

Is there going to be something that shows this balance of accounts, the, you know, the debits and the credits, from the water system; is that going to be taken into account into the plan, because that overrides all the other interests, when it comes down to it, whatever they are. The balancing and protecting the fresh water system overrides all of those. Will that be part of the new plan?

MR. MONTAN: Dalton, before I get someone to respond, let's see if I understand your question myself. Are you talking about, pre-regulation there was a certain discharge curve, shall we say. Are you saying that the plan that's adopted could compare, maybe on a week to week basis, to discharge with that, to see how it's tracking relative to the natural, or --

MR. FOSTER: I'm not saying it has to balance on a weekly basis. Of course not. But there has to be an accounting of it. There has to be a balance to say that we are not discharging a lot more or a lot less water than would have been discharged naturally.

I mean, right now we've got about a little over 2 billion -- I'm sorry, 2 million gallons a second going out into the ocean from the St. Lawrence River. Obviously when you make decisions, and we can discharge a lot more water now, the way we're set up, than we could before, you know, the old system, the old international rapids, would only allow so much water to go out.

Well, we could allow a lot more water out, out through that system now. And we need to keep it in balance with what nature was going to do over time, and at some points in time if we have to let out a little extra, then we cut back and put some back in the system. If we hold some back then at some time we have to let a little out so we can achieve a balance.

MR. MONTAN: Okay. Anyone? Tony?

MR. EBERHARDT: This is Tony Eberhardt again. The way the control board operates now, they do keep track on a weekly basis of what the pre-project outflow was and what water levels would be, and it's there for an information -- part of it. It's not part of the decision process to determine what the outflow should be, but that is information that could be incorporated into some future plan. It is available.

MR. WERICK: I'm Bill Werick, the plan formulation guy again. We're trying to look at new plans in as thorough and creative a way as possible, so we're going at it in four different directions.

One is, if people have plans, and I extend this invitation right now; if you have the best idea for operating Lake Ontario that we've never heard, then just come and tell us and we'll model it.

The second way, and this is based on a lot of research that says if people have been managing a system for a long time, they've probably come very close to perfecting the system, so that you should just try to tweak the plan that you've got now. So we're going to try to do that, too, with the rules that we have now.

Just look at, for instance, we'd like to get the water levels up a little higher in the fall because we know people have trouble getting their boats out.

Then the third way is, as economists say, just optimize, get everybody's interests on the table, see how much they're worth, press a button and solve for the one that creates the most money. And, even if you don't like that as a final plan it's a great way to get ideas. You get the relative scale. There's lots of issues.

You have to say, then how do you address environmental issues that you can't measure in dollars. But it's still a good way to generate ideas.

And then the fourth way, and this is gaining a lot of currency, although it was kind of running fourth in the race for a while, is the one that the nature conservancy and other puts forward, which says that we don't even know what we don't know about the environment. And when in doubt, defer to nature and try to mimic as much as possible the flows that you would have gotten before we built the dams.

In the March workshop where we practiced the decision in Toronto, we worked with fisheries people to try to come up with how you measure similarity to an unregulated flow, and of course, over a hundred years, no matter what plan you have, about the same amount of water goes into the Atlantic Ocean. It has to.

So then the question is, well, what do you mean by close to natural, and there's a lot of good answers to that. And we're trying to use different metrics. Again, we're looking for ideas. The one we used was kind of a brute one, which was, measuring the differences between the releases in every quarter month and then accumulating those over time. We have to do better than that because it wasn't very informative to us.

One of the interesting things is that sometimes the natural regulation gets counterintuitive results, sometimes it's good for the economy and not so good for the environmental metrics that we're using. It can do things, and I know you're aware because we talked about it, it can create floods that nobody wants. So we have to modify those.

And even for the environment, it might flood duck eggs that nobody wants to flood. So we can modify it a little bit.

(Unintelligible comments from floor.)

MR. WERICK: We won't mention the geese. Anyway, definitely an idea that we want to follow up on, and we're looking for suggestions as to exactly how to match it, but we're working very closely with a guy named Brian Richter from the Nature Conservancy, who's made it his life's mission, not here, I worked with him 10 years ago on the Appalacha Cole Chattahoochie Flint (sic), to do this exact thing, which is to try as best as possible to mimic the natural regime.

MR. MONTAN: Thank you very much. Marc and the folks in Jordan, I hope you heard those responses because I'm not going to try and resummarize them if you didn't. Are you there?

MR. HUDON: We heard all of it.

MR. MONTAN: Wonderful.

MR. HUDON: Okay. Another question, please. Yes?

MR. RIGALASH: Okay. My name is Martin Rigalash in Beamsville and I'm getting a bit of conflict on the reports from this end and from your end. Your end has said that it is possible to allow quite a bit more water down the St. Lawrence.

However, over here we talk about the fact that we can't really control Mother Nature. So I'm wondering. My question before we started was, can the lake be let more constant, rather than having the ups and the downs of the spring and the fall, try to keep it at more of a consistent level. Put in more power making hydro dams so that -- or, not dams, but just

more hydro producing generators, so that we can let more water out, get more power, which is what we all need around the Niagara and New York area, and allow more water to flow out during those high points, and allow a little less during the low points.

So, basically my question is, can we do it or can we not? You guys over there say we can, I believe, and over here we say it's more up to Mother Nature. So which is the correct answer? Thank you.

MR. HUDON: Did you hear that well?

MR. MONTAN: Yes, we did.

MR. HUDON: Everyone here wants to try to answer. You want to try to answer?

MR. MOIN: Syed Moin, I am with -- I am the Canadian lead of Hydraulics and Hydrology. I will try to answer your question but not in -- because what we do here is, we simply see what is coming in and what -- This is the time of the year and we will let out this much flow.

This is based on the plan that we have based on the 58-D with Deviations. And if the flow for some reason is more, coming into the lake, then we are cut back to what we've gone on this project so, basically we go back to what nature would give, and we deliver that flow out of the system.

So, to answer your question, what we are saying here is that, we have to reflect what nature gives, and nature gives lots more water during spring and a lot less during summer. So during summer we have higher lake levels, during fall we make it go down simply because we know that during fall we'll have wind storms that will cause erosion damage. According to the plan it does go down, yes, because what we are trying to do is again minimize the damage to the system.

As part of the study what we have done is we are doing studies that will tell us, what is the potential of higher flows and lower flows into the system. And what we do is we try to mimic nature over a ten thousand year period, or a twenty thousand year period, and what we are seeing here is that we do get the record highs and the controls are yet to come, if we continue on the pattern because that's the way nature works. That's what we say is that the record flood is yet to come. And of course drought is yet to come.

MR. HUDON: Does that answer your question? Someone else want to give a crack at it. Hang on.

MR. COFERT: Thanks, Marc. This is Doug Cofert, (sic) I'm the Canadian co-director of the study, and I can't resist to respond here because this gentleman and a couple of others have put their finger right on the heart of this whole issue.

Right now the regulation plan reduces the variation of water levels on Lake Ontario because no one likes the really high levels nor the really low levels. Unfortunately that increases the variation of the flow and levels down the St. Lawrence River. There's a limit to how much variation they like in the river as well.

Our challenge basically now is to say, how can we strike a new balance for this. We know that there will be cyclical water level supplies and water level variations. But how much

influence do we try to exert on that to either reduce it further on the Lake Ontario which would increase the variation of the St. Lawrence River or from the environmental viewpoint, every once in a while to allow higher fluctuations.

So, there's a really, a balance of interests here. And that's what we've tried to show you, that there are different levels and different interests like, we have a new balance now with these 50 years of experience we've got. What's the best one now? So we don't have an answer.

We expect that a year from now we'll be back to you with an answer to say, here's how we would propose to modify the plan to modify what nature's levels would be. And we'll be able to evaluate how well we're doing it. But you put your finger right on the whole heart of this whole study. Thank you.

MARK HUDON: Okay, Jon.

MR. MONTAN: Okay. All right. Any others? Any other remarks, any other questions? Bill?

MR. WERICK: This is Bill Werick again. Yeah, I'd like to respond to the question from Canada, if that's allowed under the rules.

MR. MONTAN: Sure. That's why we're connected.

MR. WERICK: And I think a simple answer to the question is that you could only do so much to control nature, that because of the way the snow melts and the rain comes in the spring, no matter what plan you're looking at, Lake Ontario gets fat during the summertime. And if you were to try to flatten that out, what would happen is, you'd have horrendous damaging releases on the St. Lawrence during the summertime, and then, in order to keep Lake Ontario from crashing for the next year, you'd have to reduce releases out of the St. Lawrence to horribly small low levels. So that basic natural shape, we can change it a little bit, but we'll never turn Lake Ontario into a skating rink all year round.

MR. MONTAN: That's a concept. Lake Ontario as a staking rink all year round.

MARK HUDON: We understood that very well, Bill.

MR. MONTAN: Okay. Thank you. I guess we'll start to turn now, if there's any other questions -- any other questions or comments?

MAYOR MAC DONNELL: I'll make a comment if I may, Jon?

MR. MONTAN: Yes, Mayor MacDonnell.

MAYOR MAC DONNELL: Mayor Ken MacDonnell, Village of Massena. I would like to say that from my perspective in talking with the constituents that live in this area, the problem that we have the most is the fact that attempts are made to make dramatic increases in a short amount of time in the water levels and being the drain for Lake Ontario I think everyone recognizes that we have to drop our water level here significantly in order to make a small change in Lake Ontario and we have to raise it significantly in order to back the water level up into Lake Ontario when it's low.

So I think, think for this area, the most significant thing that we could do is to recognize the fact that we can't make changes for the weekend. We need to have a long-term management plan that moderates the water levels in both areas. Thank you.

MR. MONTAN: Yes. Thank you. That gets to the matter of how often decisions are made to change the outflows. Right now it's weekly. Isn't that right, Tony?

MR. EBERHARDT: That's right.

MR. MONTAN: Has there ever been any thought of making that more frequently? I realize there's some problems with convening the regulatory boards, but making more closer approximations of real time adjustments. Have you ever given any thought about that? A feasible approach?

MR. EBERHARDT: Well, the Control Board does make more frequent changes in certain situations when the water levels are extreme, one way or the other, or if there are emergencies that occur. But normally it's on a weekly basis, usually the flow changes on Friday.

And a strategy is developed prior to that time by the Control Board depending on whether they anticipate supplies are going to be high or low. But when we come up with recommendations we may also recommend changes that may be more frequent than that.

MR. MONTAN: Thank you. Okay. I guess it's your turn, Marc.

MR. HUDON: Thank you. Anybody, more questions? Comments? Yes? Please, your name.

MR. MAC KILSKY: My name is Mike Mac Kilsky. I'm a property owner in Stony Creek, Maria's husband. And I had a question about winters. Like I have less damage on my property when we have real harsh winters because you know, water splashes on the property and freezes solid and you have icebergs and I look forward to that, you know, because then the waves are just bashing away at these mounds of ice.

And some of the worst experiences I've had were during the periods of these El Nino winters, where we had a very mild winter, we had a lot of rainfall during the winter, and some of the fiercest storms I saw, I've ever seen on the lake. And I just wondered what the studies showed, or whether the experts that are involved in regulating take this phenomena into account. I think there's another El Nina brewing out in the Pacific. Does anybody have any comments about that?

MR. HUDON: Yes. Can you state first where about you live exactly, where about you live on the lake? Stony Creek. Okay. Thank you.

MR. RIZZAK: My name is Hank Rizzak (sic), I'm a study contractor working for the IJC, specifically hearing with the coastal issues, the riparian land owner issues on Lake Ontario and the upper St. Lawrence River. And a lot of people are pointing at me, so I think this is my question.

We have been looking very carefully at the seasonality of storms, to answer your question. In the past there hasn't been the recognition that the storms came once a month, etc. so we've been spending a tremendous amount of time looking at the different seasons, the fall,

the winter, spring and summer, and how much storm activity. How big are the waves throughout those months. And also, how they correspond to lake levels.

And as you mentioned, the big storms can come in the wintertime, they can come in the spring. And we're taking great consideration into the water levels we have during those periods.

As we saw in the slides here, in Jordan, we have more thresholds for higher levels in the summer. There's less storms in the summer. We have high pressure systems sitting over the Great Lakes. We don't have these large event storms, which are the storms that you mentioned.

So we're, we're suggesting that we can let the lake get a little higher in the summertime. But we are trying to introduce now some new thoughts, new ideas on how to regulate the lake in the wintertime as well, so that we could recognize the concerns of the riparian land owners and try and minimize the damage during the winter season.

MR. McCAULEY: Okay. There is a question about the height, and that was part of your question. In the wintertime, if it is a very cold winter and we have ice formation along the shoreline, as you mentioned, that can be a very good thing for the riparian property because you have something called an ice foot or an ice fan that builds up along the shore. It could be as small as 10 or 20 meters, it could go out hundreds of meters.

On the St. Lawrence, on the Massena area, it will completely cover the river. And so during those periods the winds can blow as fast as you want, you won't have waves reaching the shoreline.

So as you mentioned, those cold, cold winters when it's continuously cold and we don't have some mild periods, part of that for your walls and your protection, because the waves are simply farther out in the lake and they don't reach your property. That is something that the study plan, the future regulation plan really can't control, is the ice. But it is a very important factor.

MR. HUDON: Someone else want to intervene?

MR. MOIN: Just adding -- someone told me I should say this is Syed Moin again. And this has something to do with the ice conditions and all that.

Our study that we are doing under this project on climate change, rehab-ility and what's likely to happen. So we are looking at different scenarios of climate changes and some of these climate change scenarios are pointing toward open water conditions throughout the year. So that may have an impact on the kind of erosion damages that we will be looking at as part of the work.

So while the winter conditions may exist now, in the future we don't know. It's an open debate right now. But it's a key point worth having, open water conditions throughout the year.

MR. HUDON: Thank you. Back to you, Jon.

MR. MONTAN: Thank you. Okay. We're doing fine on the time. It's a little after 8:30. Anyone else have any questions or comments?

(No Response in Massena)

MR. MONTAN: At this point there don't seem to be but they may arise as you ask some more at your end. So we're going to turn back to you, Mark, for more questions and comments.

MR. HUDON: I have a question from a lady.

MS. GILLESPIE: Pat Gillespie, riparian from -- My question is -- It's my ignorance really; why is it important to keep the water flow even throughout the year in the St. Lawrence River? Why can't we go higher in the early summer?

MR. HUDON: Yes?

MR. COFERT: Doug Cofert again. It does cover the gap. Actually we do, the water flow of the St. Lawrence varies quite a bit during the year. It's gone as high as, in English units, 10,000 cubic feet per second. It's not there right now, and it's been half of that. So that's about the variation.

In the spring it's much higher, in the winter it's much lower. The question is, should we vary it further? And of course, that has concerns down the river. And we're trying to push the envelope, by saying, well, how much further.

And when you hit those thresholds then you're causing more problems down the river than you're benefitting on the lake. But there is quite a variation.

MR. HUDON: Someone else want to intervene?

MR. GALESPI: I'll just give one example. You know that we have the St. Lawrence Seaway, and there's very important commercial navigation up and down through the system.

We need certain flows to be able to navigate straightened levels through the locks and if you change those levels and flows by too much, then you can impede the whole commerce through the commercial navigation.

MR. HUDON: Do you want to say something on the same subject? Jon, I have another question if you guys don't have any.

MR. MONTAN: Go ahead, Marc.

MR. RIZZAK: Hank Rizzak again, and I just have a question regarding the Great Lakes shipping. I heard that there were, may be plans to expand it in the St. Lawrence and I was just wondering if there was any validation to these claims that I've heard.

MR. HUDON: There's a brave guy.

MR. MOULTON: Ralph Moulton with environment Canada. About three years ago, approximately, the U.S. Army Corps of Engineers did initiate a study that looked at a number of different options for navigation on the Great Lakes-St. Lawrence system. It was what they called, I guess a scoping exercise. It was a very initial cursory look at it.

And they did develop, came up with a number of different possibilities that involved expansion of the seaway. Some of them involved fairly significant expansion. I think the largest was to accommodate what are referred to as Panamac ships. Those are ships that can navigate through the Panama Seaway, and they're definitely larger than the existing Great Lakes, the ships that can now get into the Great Lakes system.

That was presented to the senior management at the U.S. Army Corps of Engineers and the next step on that study might have been to go and do a full feasibility study, looking at options in more detail. They decided not to go that route, at the present time, at least and instead, decided to do more research on the existing system.

And the U.S. and the Canadian government, or at least two agencies in the two governments, on the Canadian side it's Transport Canada, along with U.S. Army Corps of Engineers and the U.S. Department of Transport, entered into an agreement. They looked at the existing seaway system in more detail.

There's a lot of questions there. Our seaway system is quite old. The locks, the infrastructure is very old. It takes quite a bit to maintain it and they wanted to look at the long-term viability of the existing system, over what is the market there for seaway navigation, for ships coming in and out of the Great Lakes and within the Great Lakes system. What can be required over the long-term to maintain that system.

What are the environmental impacts of maintaining the system, both as far as invasive species aspects for example, that have been brought into the system. Dredging that has gone on and might be necessary in the future, not for expansion of the system, but even for maintenance of the existing system.

So that study is underway right now. We're about fifty months into that study and it goes for 42 months, so whatever the math is as to how much longer that's going to go.

It involves -- Environment Canada is involved as well as several other Canadian and U.S. agencies, but it is not looking at expansion of the system. It's looking at what's involved in maintaining the existing system, both the economic aspects and the physical aspects of maintaining the seaway, and what as well, there's a third component, where the environment impact of maintaining the seaway as it is now.

So the Canadian government has expressed that it is not interested in looking at expansion of the seaway system at all.

MR. HUDON: Thank you. Jon?

MR. MONTAN: No. Keep going.

MR. HUDON: All right. We have another question. Go ahead.

MR. MORTON: My name is Stu Morton. I live, I have some waterfront property about a kilometer down the road here to the left, in Vineland, Ontario. My -- I'm here to make a comment on this serious question.

We have serious erosion in this part of the lakeshore of Lake Ontario. For the landowners on the lakeshore, the cost of preventing that erosion is significant. I have gone through that. I fully understand and appreciate the need for this organization, the studies that they're doing and the requirement to keep water levels high at times for items such as hydroelectric power or the St. Lawrence Seaway traffic and stuff like that.

When we discuss matters such as the ecosystem on the wetlands and the recreational boating, I'm afraid my sense of humor drops right off because it's costing me an awful lot of money. So I think this organization has to take the concerns, the interest and the damage done economically to the landowners all around Lake Ontario, not just here in Ontario but in, on the American border. And I would think that their damage is more significant than ours considering the prevailing wind is from the west-northwest.

So, I think you have to give serious consideration to the economic damage, such as the landowners on Lake Ontario, and if you want to see an example of the damage, please come to my property. If you know somebody who wants to fund my waterfront protection, my door is wide open.

MR. HUDON: Thank you. Anybody would like to comment more on that? Yes? Your name, please.

MS. DUKE: My name is Mary Lee Duke. I also live in Vineland on the lake. I bought my property in '72, and the lake levels then were considerably lower than they are now. I have had to do, three times -- involving recreational boats, this is one of the problems and they should be putting into a fund to help maintain the lakeshore. And everything was -- There used to be a road that ran from St. Catharine's to Hamilton out here which eroded.

Recreational boaters and everything was running the seaway. System was perfectly fine in those days. I don't understand what the difference is now.

MR. HUDON: So, what changed since 1972?

MS. KREUSCH: Marc, could we have her repeat her name, please?

MR. HUDON: What's your name again?

MS. DUKE: Mary Lee Duke.

MARK HUDON: Doug, you want to be brave?

MR. COFERT: Doug Cofert again. One of the reasons we scheduled this meeting in this area is, we know that it's a very sensitive shoreline to erosion and higher water levels.

Actually the regulation plan right now tries to reduce those high water levels though to benefit, or not allow any further erosion that might happen naturally.

If there was not regulation plan, there were no control dams, they found that the water levels would be higher. Now, the question is, is there much we can do to further reduce the levels?

The previous gentleman mentioned the concerns and the economics. If the economics are driving this study as one of the prime movers for the study was because of the continued concern for erosions around Lake Ontario both on the Canadian shore, but as you said, on the U.S. shore it's even more severe down around the Rochester-Greece area. It's a very sensitive area. Lake Ontario, the Niagara Peninsula is sensitive and we realize that. And that's a fact.

MR. HUDON: Any more comments?

MR. ZUZAK: Thank you. My name is Pete Zuzak (sic), again, I'm a contractor to the study, and I just wanted to add some thoughts on the erosion issue in the Niagara Peninsula.

I actually grew up here so I'm familiar with it. We've been doing a tremendous amount of work here in Niagara looking at erosion. So it is a very big part of the study on Lake Ontario and on the river.

As an example, we are looking at the erosion damages, damage to the shoreline structures, the protective structures that you have in front of your property. We have them in a database. We have 20,000 properties in our database, and we are calculating economic damages to all of these properties due to erosion, flooding, high lake levels.

So we have done a tremendous amount of work to bring into the study your concerns, issues regarding high lake levels and damages to the structure. So it is a tremendous part of the study, and I've done a, close to a three year effort to bring that into the investigation.

The one thought that I'd like to add, and again, this is based on our scientific work over the last three years, is that the riparian community on Lake Ontario is better off today than they were before the dam. And this is a bold statement, but there's been a tremendous amount of research to support it.

Prior to 1960, without the dam, things were worse off for the riparian community, the landowners around the lake. And we didn't have the high lake levels you've had in the 1970s, in the 1980s, in the 1990s. Without the dam it would have been worse off in the last three decades, around the perimeter of Lake Ontario. And it's a very big point, it's a bold statement. We have the data to support it.

So I think, as we move forward here, we've mentioned earlier the need to think about compromises and the competing interests. It's important for the riparian community to understand that things are better today than they were before the dam was here. That doesn't mean we won't try to make it better still. We're trying to optimize things for everyone. But it is important to note that things are better off today with the dam in place than they were without.

MR. HUDON: Thank you, Pete. One gentleman wants to come in, Jon, okay?

MR. MONTAN: Pardon me, Marc. Repeat that?

MR. HUDON: We have another gentleman who wants to comment on this topic.

MR. MONTAN: Oh, please go ahead.

MR. MAKOWSKI: It's Mike Makowski. I'm a property owner. There's another issue, not strictly having to do with lake levels, but, and I don't know, maybe it's beyond the scope of the study, but we have to fight not only the forces of nature but the regulatory bodies, too.

In the old days, it was no problem, you know, to bring in a load of broken concrete and try to drop it down the bank or put a growing in, it was not allowed because it was -- current or the fish or some other stuff, you know. And I wonder if that would be possible to, you know, to give it some assistance in that -- in the burden of the regulations, you know. They're not doing anything to help us.

There's only like one or two approved systems to protect the shoreline, and those are usually the most expensive, you know, that you could get permits for. And they don't work, yeah. I've got a hundred year wall, and my neighbor next door, his rocks had drifted in front of my property.

MR. HUDON: I'm an environmentalist, so I can't answer that. Yes. Go ahead.

MR. CORBETT: Bill Corbett, also a shoreline property owner. And I'd like to weigh in on that same issue.

I have two properties on the lake, one of which I have put the shore protection in, and the second of which I would like to add the shore protection. And pretty much to get a permit you almost need special dispensation from the Pope because the list of people you have to get permission from and the approved methods are extremely cost prohibitive, and at one point I hired engineers to provide drawings, and the process was supposed to take six weeks. It almost took three years to get some sort of a response back, and that was back in the Ray Day (sic) where public servants weren't at their highest performance level. And now I'm entering into the same scenario again, and I'm hoping to do shoreline protection this winter, and I really do hope I have a permit by this winter.

MR. HUDON: Anybody can say something about permitting? You could do it at night but -- I did not say that. Any other questions, please, or comments, on what you saw tonight on the study? Someone has to respond to the last comment.

MR. MOULTON: My name is Ralph Moulton again. It's funny you should mention, we did invite the Pope to come tonight but unfortunately he was not able to make it here. He is not giving the dispensation this week.

But I felt at least some response was needed and in reference to what you said. You're right. The permitting part is really beyond the scope of this study. It is not something that we're able to -- or that we're looking at within this study or within the power of the IJC to regulate.

So you did mention they adopted -- the most expensive option is what is permissible, if you will. I think to some extent in shore protection you do get what you pay for, and often -- there was a suggestion of broken concrete, putting that over the bluff. And that may provide protection for a period of time.

But I think generally on shore protection that has been well designed and engineered, and it may be a long process to get that through, is likely to have a longer life span than something that is done quickly and is not, not maybe well conceived. So although it is an expensive route and it's more difficult to do that, it sometimes will result in better results over the long term.

MR. HUDON: Thank you. Jon?

MR. MONTAN: Yes. We're -- I believe we're done with our questions and comments.

MR. HUDON: Okay. I'm going to check in this room if we're done. No, someone has their hand up. Please, sir, your name.

MR. FORBES: My name is Rick Forbes, and I wonder how much you can raise or lower the lake, and for how long?

MR. MOIN: This is Syed Moin. I will try to address your question and -- It all depends on what we get from the media. If the rainfall of the summer is high the lake will go high. And if we know, because we have an idea of how much water is coming in from the upper lake, the lake can be maintained at the high level but at the same time we have to look at the fact that the delivery system needs -- at the same time for commercial navigation, for --

So it's Mother Nature that controls how long it can be kept at a certain level.

MR. HUDON: Doug, do you want to add something?

MR. COFERT: Yes. Doug Cofert. I'm not sure of the point of your question. We really haven't tried to see how high we can get the lake because most people don't like it that high, and we really haven't tried to see how physically low we can drop it. So we're going in the other direction. There are obviously limits.

If you hold water back on the St. Lawrence River to a certain point you're going to start over topping the dam at Cornwall and you're going to cause a catastrophic problem.

On the other hand, if you try to get as much out as you possibly can, and we only can do that when the level of the lake is high, not when it's low, then you have problems down river. So I'm sorry I can't give you a direct answer if that in fact is the point of your question.

MR. MOULTON: Okay. To answer, the current regulation plan has tried to maintain about a 4 foot rate on the lake, as compared to what normally would have occurred at least a couple feet more. It's not always successful at doing that. I would -- The short answer could be we can multiply it by several inches, a number of inches, but not several feet.

MR. HUDON: Tom, you want to add something?

MR. McCauley: Because the lake has such a large surface area, it doesn't change elevation very rapidly, when you do change the discharge of the St. Lawrence. But just to give you an example, if you were to let 9% more water down the St. Lawrence River because of discharge of around 7,000 cubic meters per second average, 9% would add two centimeters on the lake in one week.

That's adding, that's putting 640 cubic meters more down the river. And so if you held back 9% of the flow, that would add two centimeters. If you put 9% more out, that would take two centimeters off the lake. That's assuming that you have a constant inflow.

MR. HUDON: Any other questions, comments? Yes, Miss. Your name, please.

MS. MORGAN: My name is Jenny Morgan. I'm a homeowner down in Vineland. I just have a general question here. Of all the participants, how many represent homeowners, environmentalists, or recreational boaters, and/or industrial? Perhaps that might go for Massena as well. Just so we can get an idea of what the percentage of participation is. No, no of all the people that are here tonight to attend this meeting, how many are homeowners concerned about their property, how many are environmentalists, and how many are recreational boaters?

MR. HUDON: Yes. Raise your hands, those that are homeowners. In this room we have, we have about 28 people in this room that are homeowners. How many environmentalists? We have four, five, six people. And what else? Oh, recreational boating, how many? One, two, three, four, five, six, we have six. Anybody else? Any other category? Industry. How many from the industry? Whether it's hydro, commercial navigation or anything else. We have one industry. Anybody else?

What's the score in Massena? Jon, do you have it?

MR. MONTAN: The game is tied and we're going into the ninth inning. We have a member here who would like to respond to a previous question. Is that right, Andre? Okay. He's going to respond to a previous question. He'll describe what it is.

MR. CARPENTIER: Andre Carpentier again. I just want to add something that Tom McCauley mentioned. When you can raise or decrease the Lake Ontario by two centimeters in a week means that you are releasing or increasing the flow by 700.

It means that downstream in the St. Lawrence River the variation is 20 centimeters. So you have to take into account this also. The question I think we heard tonight, you know, are referring to the big system that we are looking at, you know. We are looking at Lake Ontario, St. Lawrence section and also the St. Lawrence downstream. And the study board has to deal with all these sections all the time with all the interests at the same time.

The other thing I just want to add, that the water levels right now are high, as someone mentioned, something around 15 centimeters higher than average, but they are right now on the four feet that, you know, the IJC limits the variation on Lake Ontario. We are lower than this four feet right now. So it's high but it's still not very, very high as it should be if we don't, if we don't have the regulation.

The pre-project levels, I don't remember exactly but I think it's higher than 20 -- it should be 20 centimeters higher than it is right now. It would be higher than it is right now.

MR. MONTAN: Thank you. Marc, to respond more seriously perhaps to your question, we have fewer people than you do but the people we have here are not only homeowners but they're environmentalists and recreational boaters all at the same time. So we have our interests covered. Any more questions from your end?

MR. HUDON: It's just too bad, you are in a different time zone. Any other questions or comments, please.

MS. MARGARET: Vivian Margaret, and I grew up on the lake and I'm a riparian. And the lake is right about 1972, there were a lot of us around then. I remember going to a meeting at the Department and land waters (sic) where a man was very concerned and kept saying, why can't they build the boat to fit the lake, fit the lake to fit the boat. And here we are this many years later, only the boats we're all talking about were smaller. Who would have ever thought they would get this close. Thank you.

MR. HUDON: Any other comments or questions? I guess that's it, folks. Thank you very much. Jon, nothing else?

MR. MONTAN: No, nothing else. Thank you, Marc.

MR. HUDON: Thank you. I guess we're signing out.

MR. MONTAN: Yes.

MR. HUDON: Good-bye.

MR. MONTAN: Good-bye, Marc.

(Phone conference with Jordan, Ontario, terminated at this point)

MR. MONTAN: Well, our time is up and I hope you could all hear the comments with the competition we had briefly from the air conditioning unit. The metaphor for balancing comfort and information, I guess. So good-night and -- good night from me.

I'll now ask the chair, Elaine Kennedy, for closing comments.

MS. KENNEDY: Thank you, Jon. From what you have heard this evening, I'm sure you now understand if you didn't before that it's going to be impossible, even with all the information from the technical working groups, to please all of the people all of the time, through the system.

However, if the study and the decisions made are transparent and all stakeholders' interests are being taken into account, I think we will be able to come up with a regulation plan that will help most of the people most of the time without hurting any group disproportionately.

We want to come back to you next summer to show you tentative regulation plans and get your feedback. We look forward to those meetings. In the meantime you have the material you picked up on the table on your way in, which includes the web site for the study.

If you did not sign in on your way in, please do so, so that we can keep in touch with you. If at any point you think of someone or if you meet someone who would be interested in information about the study, please pass on our contact information to them.

You are welcome to stay to talk to any of us, view the banners, talk to Bill about his computer model or Roger about his data management.

Thank you and good night.