

## **Transcripts**

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

In the Matter of:

INTERNATIONAL LAKE ONTARIO/  
ST. LAWRENCE RIVER STUDY

September 17, 2004

Transcript of Public Meeting held in the above matter at Olcott Fire Hall, 1691 Lockport-Olcott Road, Olcott, New York on Friday September 17, 2004, at 7:00 p.m. pursuant to Notice.

**PRESENT:**

RICK KRUGER - Town of Newfane Supervisor

JIM WARD - Senator Maziarz Representative

APRIL BROWN - Counsel Member

KATE COMMODORE - Counsel Member

TOM BYER - Counsel Member

LINDA LOGAN - Environmental Task Force, Seneca Nation

MR. WALLACH - Environmental Management Counsel

DAN BARLETTA - PIAG U.S. Co-Chair

TONY EBERHART - Study Manager

EUGENE STAKHIV - U.S. Co-Director

MAX STREIBEL - PIAG Member & Facilitator, Olcott, N.Y.

ARLEEN KREUSCH - Public Relations

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IJC-PIAG-OLCOTT

P R O C E E D I N G

MR. MCKENNA: I'd like to call the meeting to order and ask Supervisor Rick Kruger from the Town of Newfane to open the meeting. Rick?

SUPERVISOR KRUGER: Thank you. We're really honored here in the town of Newfane that the Lake Ontario/St. Lawrence River study group would choose our town to hold this public hearing. We're really appreciative of what the folks that made that decision had come to Newfane to do that. This evening we have several people I'd like to recognize.

First off Jim Ward representing State Senator George Maziarz. Jim, welcome.

(Applause)

SUPERVISOR KRUGER: And also, Dr. John Syracuse representing the Town of Newfane and Somerset. And a good friend of mine from the Town of Somerset, Herb Downs, Town Supervisor.

(Applause)

SUPERVISOR KRUGER: And along with Herb this evening is one of his counsel members April Brown. April, welcome. And from the other end of the County, all the way over in the Town of Porter, we welcome Tom Byer from the Town of Porter.

(Applause)

SUPERVISOR KRUGER: We'd also like to welcome Linda Logan from Environmental Task Force from the Seneca Nation. Linda.

(Applause)

SUPERVISOR KRUGER: And Kate Commodore from our County. Kate, thank you.

(Applause)

SUPERVISOR KRUGER: Kate's no stranger to Newfane, she's been very instrumental in a lot that's been going on in the area. And her and her boss and her staff, they've done a great job here in the county. And also I'd like to welcome Mr. Wallach from the County Environmental Management Counsel.

(Applause)

SUPERVISOR KRUGER: So again, thank you very much for coming out this evening, and thank you again for choosing the Town of Newfane here in Olcott Beach. Thank you.

(Applause)

MR. MCKENNA: Thank you. I'm Tony McKenna and I live in Olcott and a lot of people here know me. But I'm a member of the Public Interest Advisory Group that's working with the study board. There's one of me in each kind of area along the lake in the United States and in Canada, and then down the river, both sides. And the reason that's important is that from the very beginning, the IJC when they set this study up, they've had a lot of attempts before to change the regulation plan that's in effect now.

That regulation plan was put in in 1958, and the attempts before have all failed to be accepted by the IJC to replace that. This study, they wanted the stakeholders to be involved from the very beginning of the project and all through it. They didn't want the study group to get isolated from the citizens and stakeholders that have an interest in the lake and river. And I can tell you that, I'm not employed by any of the agencies that are working on this thing. I'm a pure volunteer, as are others. And I think they've put together a very transparent process so that all along we've been able to interface with the study members and see what they're doing and talk with them about what they're doing and how they're doing it.

So up to now you've had our representation and we've been going around the lake and the river to meet with citizens and elected officials and other stakeholders and we've been doing that for several years now.

This is the fourth year of a five year study. It's a \$20 million study, and it's being funded equally by the Canadian government and the American government. Now, tonight you're here. We've invited you here so that we could hear your concerns and then let you know where the study is to date. And as I said, we've been doing that for the last few years, going all around the lake and up and down the river, and we can tell you right now, there are conflicting viewpoints, depending on where you live or what industry you're in, or

whether you're a homeowner or whether you're an environmentalist. So we know that we're trying to do something very complex here.

First of all, the lake and river system is very complex. We've got lots of stakeholders that have different interests, and then we've got the weather, and the weather, as you can tell, especially this year, is not very predictable. And so we're trying to put together a new regulation plan which satisfies all of that and is predictable, and that's going to be quite an undertaking.

But I can tell you that the science that they've been putting together on this -- keep in mind, the regulation plan now in effect was done in the 1950's and so they didn't have the technology that we have today and the computer modeling, and all of that type of thing, plus just the body of scientific knowledge.

So they've been able to do that for the last three years. As you'll hear later, we're on the cusp of putting some regulation plans out that we can test, and we'll be talking about that tonight.

Let's talk about the format for tonight. There's going to be about a 30 minute Power Point that's going to be done, and that's going to be actually given to you by Dr. Dan Barletta. And he's from Rochester, and he's the chairman of the American side of the Public Interest Advisory Group. Now, when that's done, after that, we will have a break and you will have a chance to write down whatever questions you have.

And we are going to link up a teleconference with Trois Rivières, which is a city that's down by Montreal on the river. And they're having the same presentation tonight, and you're going to hear their questions and they're going to hear yours. And the answers are going to come in that format. And we will be out of here promptly at 9:00 o'clock, as I understand it. The question and answer period will be chaired by Max Streibel. Max is also on our Public Interest Advisory Group, he's also from Rochester, and he's here tonight to do that part of the study -- or of the presentation.

I would guess that the next step is probably just to have Dan come up and do the Power Point presentation.

If anybody has any cell phones on, we're having some trouble with our system, so if you could turn them off just for the duration of this meeting, and then we'll be fine. Thanks.

DR. BARLETTA: Thank you, Tony. And thank you all for coming out on a Friday night. You know, I was thinking about this when we were arranging this, and thought well, okay, will we get people here on a Friday? I'm glad you're all here because this is a great turnout.

As Tony said, I live on the lake. I live right on the lake, similar to some of the people down here. I went to Tony's house just before we got here, and I think he's about as far away from the lake as I am, but he's up a little bit higher. I'm in a lower area. We're more prone to flooding, and not the erosion that you guys get here. But let's get started with the presentation here.

The International Joint Commission has asked me, along with Tony and Max, to be part of the Public Interest Advisory Group, and our job is to make sure that your concerns and ideas are addressed in the Lake Ontario/St. Lawrence River study. As Tony mentioned, we

are all volunteers, and we represent the different locations and interests around the lake and down the river.

As of tonight we've held 24 public meetings and over 51 local stakeholder meetings with over, probably close to 4000 members of the public in attendance. The International Joint Commission is responsible for the share of waters between the U.S. and Canada. It was founded in 1909 by the the Boundary Waters Treaty. In December of 1999 the International Joint Commission initiated our study to review the regulation and outflows from Lake Ontario to the St. Lawrence River to Trois Rivières, the area circled in red on the slide here.

As Tony mentioned, we are in the fourth year of a five year study and there's over 120 people involved in this study. The International Joint Commission mandates that all its boards and studies must have equal representation from both countries.

I'll briefly just run through some of the people that are here tonight from the study who are able to join us. We have Russ Trowbridge who is the International Joint Commission study liaison. And I'm going to have his wife stand up because it's the first time we met her. She came up from Washington for tonight.

From the Study Board we have the evening co-chair, Doug. Where are you, Doug Cuthbert. The U.S. co-chair is, I think lost between here and Rochester. It's Gene Stocky. From some of the technical working groups, the scientists that are involved with the study, we -- from the coastal processes group we have Pete Zuzek in the back, in the middle there. Roger Haberle is the U.S. co-lead for commercial navigation. Roger Gauthier, did I say it right, Roger? He's in the back. He is the information management. That's the group that is trying to figure out how to provide all the data that's being processed or made by this study available to the public.

From the environmental group we got David Kline. Where are you, David? Okay. And from the recreational boating group we got David White. I know you're here tonight. Tony has introduced myself and Max. We're from the Public Interest Advisory Group. The two very important people that are here tonight that made this whole meeting possible is Arleen Kreusch who is a specialist of Public Affairs person and Aaron, who everybody met at the door.

When we get to the question and answer period, members of other technical working groups will join us by phone. So we hope with all these people here tonight and those, we'll be able to have the background to answer your questions.

Now, 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 average to high water levels is water that comes from the upper Great Lakes.

The light green area is the local watershed of Lake Ontario, right down in here. The darker green area at the top includes not only the Ottawa River watershed but also the St. Lawrence River watershed. The St. Lawrence watershed is here. The Ottawa River is here.

Now, the reason why I point this out is, the Ottawa River which flows into Montreal has few control dams on the lower part. 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 is one of the reasons why the flows on the Ottawa River must be carefully considered when

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

The Moses Saunders Hydroelectric Dam at Massena is just one factor in controlling water levels. Nature is a more unpredictable factor.

Now, speaking about these outflows through the Moses Saunders Dam, they are currently regulated using a written set of rules for releases that is called Plan 1958-D. This plan takes into account the interests water uses, commercial navigation, and hydroelectric power; the plan does not consider the needs of the environment, recreational boating or shoreline erosion. 1958-D was based on the kind of water supplies that we got in the first half of the last century. And after the extreme dry periods of the mid-60's and the wetter periods of the '70's, the plan allowed deviations from the written rules. These days 1958-D is deviated from about 50% of the time to make adjustments for changes in supplies, accommodating old and new interests, and for ice formation. So we call the rule we use today 1958-D with deviations. This plan is implemented by the International St. Lawrence River Board of Control and that board is also appointed by the International Joint Commission.

On this slide you see the green area. This indicates that 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 Group is mandated to prepare computer models that will use all the data to evaluate possible regulation plans for evaluation by the Study Board.

On this slide is a listing of the -- the Study Board approved these guidelines for deciding which alternate plans and criteria serve the public best. These guidelines will be used in ranking options for the International Joint Commission. We know we can't please people all the time, but the goal of the Study board is to have every significant interest do as well or better than they do now. Now, this is an important slide, so I'm going to give you a few seconds to read it over. I also want to point out that when you checked in at the desk there is a handout that's labeled International Lake Ontario St. Lawrence River Vision Goals and Guidelines. That's a little bit more detailed explanation of what these guidelines are, and let me just review these with you.

The first guideline is that any Plan or criteria that we are going to present to the International Joint Commission has to be environmentally sustainable. Another guidelines is, any plan or criteria will not -- will hopefully produce a net benefit to the system and not result in any disproportionate loss to any particular interest or area.

The criteria regulation plans must be able to respond to unusual or unexpected conditions affecting the system. That's the way we come into flexible management. Mitigation alternatives will be identified, where we feel we can identify them. The regulation of the plans and criteria have to be adaptable to climate change. The decision process, we're going to make every attempt to make it a transparent decision process. That's part of the reason why we're here tonight and part of the reason why we've been involved since the beginning of the study, so that we can bring input not only from the study to you but you can bring input back to the study. And then finally the plans and criteria have to be adaptable to future technology.

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

prefer or want to avoid. Next, we'll develop plans that try to create these 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 that doesn't always happen. And we'll touch on that in a bit. First though, let's clarify some of these definitions that we are sharing with you.

In your folder, I'll point out another handout that's in there, it's a rather thick one, it's called the same title, International Lake Ontario St. Lawrence River Study, but it says preliminary criteria and metrics for plan formulation and evaluation. Now, this is a list of the first cut of suggested evaluation criteria for plan formulation.

These criteria, suggested evaluation criteria are not final; in fact, they are being adjusted as we go through the decision process based on the study research and public input. 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 levels get too high or too low, or reducing or accentuating the changes in levels and flows. But these terms will be easier if we show you a few examples.

We talked earlier about the extent of the Study. This evening, we are paired with Trois Rivières, and we'll talk more about that shortly. But let's review our area.

I talked about criteria. These lines represent the criteria, the minimum and maximum levels that stakeholders and researchers have come up with so far. I'm going to give you an example of these but before we go on to something a little more detailed I'm just going to point out one thing here.

Presently the Lake Ontario levels of control between 243.3 which is approximately between this dotted line and this solid line. Okay. So this is the bottom level, area of control.

FLOOR: What was that number again?

MR. BARLETTA: 243.3 is the present lower limit for 58-D. The upper limit is 247.3 which is approximately right between this red line and the yellow and the black dotted line. Just to give you a reference point.

Okay. The recreational boating and tourism group would like to minimize the frequency, severity and duration of water levels on or below 245.2 feet, or above 247.2 feet from April to October 15th.

If it is necessary to change the water levels more than seven tenths of a foot from the beginning of May to the end of June, they'd also not like to have it happen any more often than it happened before, in March of 1955 or the time we call pre-project. They also don't want the water to drop from the spring peak to the first week of September more than 9.6 inches any more often than really necessary.

This group has come up with these performance indicators. These are the economic and environmental impacts the study researchers say will occur because of one plan or another. Now I'm going to point out one other handout. We gave out these handouts because we don't want to make all these slides because it makes this presentation very long and very boring. Not that this isn't boring now. But there's another handout in here. It's called

Preliminary Performance Indicators. And the performance indicator is broken down by technical working groups. There's more explanation of each one of these. These are just brief explanations on the slides.

Okay. Beach users prefer that levels are maintained within the range of 243.4 feet to 246.7 feet from, during May through August to have the best access to beaches and all the associated recreational benefits. For those living along the shoreline, the coastal group has developed the criteria shown with this line. The erosion process occurs at any water level. But the levels in the winter are the most important. The research shows that the winter storms cause the most damage because the wave action force during the winter months is most severe. Therefore, a lower maximum of 245.1 feet from November through the end of February has been proposed.

Coastal would like to see that 246.7 feet be the upper limit from May to August. Above this level the erosion process accelerates in the summer. On this slide, we kept, like I said before, we kept the explanation of performance indicators very brief, and I'll refer back to that handout for a more detailed explanation of the individual performance indicators.

The environmental technical working group has found that wetlands need higher lake levels. Now, in that handout the technical working group is going to say they like to have higher lake levels every 20 to 25 years. Within the last two weeks, I'm just going to show you how this data and this information is coming to us. Two weeks ago we were told that the environmental technical group will be modifying that to say that they need, would like to have higher lake levels about once every 50 years. So that during periods of high supplies and lake levels the environmental technical working group would like Lake Ontario to rise to about 247.7 feet at the time it would usually peak, although a few inches higher than it is under the current plan, for about three weeks.

In a different climate situation wetlands need a very dry period about once every 20 to 25 years. So during periods of low supplies and lake levels, the environmental technical working group would like Lake Ontario to be held at 245 feet or below for two years in succession with a gradual return to higher levels during the succeeding two years.

So you can see, most of the time no change is really necessary 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 researchers are still working on that part, in turn will give us greater abundance and diversity of fish.

Under normal climatic conditions the minimum wintertime weekly Lake Ontario levels should be kept above 245 feet in most years. In Lake Ontario the first week of April is most important because of fish spawning. If Lake Ontario levels can be 246 feet and higher in the first week of April the fishermen will be happy when those young reach a keeper size.

You'll notice on this slide and also in your handout that these performance indicators are the impacts that could occur rather than economic measures. The commercial navigation companies find these levels important, on this slide. During the shipping season if levels get above 247.2 feet the ships must reduce their speed to prevent shore damage on the eastern end of Lake Ontario. This, of course, increases their cost.

The two minimum levels shown here are important to the companies also. Any level below 243.9 feet means that they have to reduce their speeds to maintain safe underkeel

clearances. Below 243.6 feet the ships must reduce the size of their loads. And each of these levels increases their cost.

And again, you know, for a more detailed explanation of their performance indicators we refer you back to that handout.

Minimize the frequency, severity and duration of Lake Ontario levels of 243.1 feet and lower so that municipalities, industries and shoreline property owners with wells are not negatively impacted. These are mainly economic, but the social impact on people with wells could be considerable.

Okay. This slide here we have the hydroelectric power performance indicators. We don't have an actual chart that goes with these so we kind of put these at the end of the charts. I'm going to give you a few seconds to read through these here, but I want you to remember that whether it's a hot day or a cold day, we all still need electricity.

We want you to let us know what you think by contacting us by regular mail or email. Our contact addresses are in the material you received. We especially need to hear about you about the metrics that are in the package and if there's anything you feel should be different, especially, you know, in the upper St. Lawrence River area.

We will be summarizing all the comments and concerns expressed at the meetings this summer and thus providing your input to the plan formulation and evaluation group and the study board. Your input will be evaluated and incorporated into the study where possible.

As we said earlier, regulation began in the early 1960's with a plan called 1958-D. At the time it was the most advanced plan using the technology available at the time. Shortly after its use began, changes occurred in the climate. And as I stated before we had the drought period in the '60's and we started getting extreme precipitation in the '70's, along with demographic changes that include new stakeholders in the system.

The Board of Control was allowed to deviate from Plan 1958-D to try to satisfy these new conditions. Plan 1958-D with Deviations, that's 58-DD up on the screen, became the actual, although not formally recognized operation plan. During the 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, plans using information from other attempts that were made in the past.

All these plans will be entered into a computer model called the Shared Vision Model. Next year we will be returning to you with 2005 plan options for your consideration, and on this slide here is our tentative meeting dates for next summer. And I'll tell you now, we're probably going to change the Friday meeting. We won't have it on a Friday. So we'll be here again to present you with the alternate plans based on science and your input.

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 the winter. We will develop recommendations for plans to bring to you next year.

In the fall of 2005, our report will be submitted to the Commissioners in 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.

And as we said at the beginning, we are all volunteers and we are interested in the lake and the river. Some for a variety of reasons have been unable to stay on the PIAG. But you'll see my name, you'll see Tony's name and Max's name, along with other members on this list. On this and the next slide you'll see names of the Study Board members, some of whom are also not been able to stay on the Study Board but you also see the names of the people here tonight that you were previously introduced to.

Now, for the next portion of the meeting we'll be connecting with some of the experts who cannot attend tonight's meeting in person. You've already met the experts here tonight, and we also connect with Trois Rivières.

We're going to take a short break and give you an opportunity to write down your questions while we tie in with the teleconference. If you don't have a pen, there's paper in your hand - in your folder, there's a blank sheet of paper for you to write down questions. If you need a pen, there's pens at the front desk.

(Off the record to attempt to connect telephonically to Trois Rivieres, Quebec, Ontario. Connection was unsuccessful)

MR. MCKENNA: For those of you who came in late, we've got a connection with Trois Rivières down by Montreal.

So Max Streibel is going to take over from here. Max?

MR. STREIBEL: Thank you very much. Thank you very much. This is sort of a unique format from what you've seen before if you were at one of our previous meetings. We will be alternating questions with Trois Rivieres outside of, between Montreal and Quebec. So you'll have an opportunity to hear some of their concerns, and they'll have an opportunity to hear your concerns.

We've got a table of experts up here that will be answering questions of both you folks as well as folks at the other end, and they'll have experts there as well that will be answering questions. Your comments and questions are going to be recorded so that we can make sure they're taken into account throughout the process of the study, as we have done before.

Please use one of the two microphones. Now, this one is relatively close to where people are, but that one over there is removed. It's a live microphone, but because of the speaker arrangements, they had to separate, keep it behind, if you will, the speakers.

When you go to the microphone, when I call for a question and one of you gets up to go to the microphone, please state your name and where you're from, and spell your last name. And the reason for that is because we are recording your information. 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 more people.

The call we expect will end around 9:00 o'clock, if everything goes as planned. If we do end it at 9:00 o'clock and there's still questions here, obviously we'll be here to answer those questions as long as you want to ask them. If someone asks a question that's similar to the one you're planning to ask, we'd ask you to refrain until others have had a chance to ask other questions, and then come in with your question, and you know, how you wanted to ask it.

If your question for some reason is not answered tonight, we'll try our best to get an answer back to you. We're now going to join with Trois Rivieres and Mr. Marc Hudon. Hello, Marc. Is Marc there?

MS. KREUSCH: We're having a problem, so they decided that we will not be connected tonight.

MR. STREIBEL: We will not be connected, so we won't have the opportunity hear those folks. That's unfortunate. It worked well last night when we were hooked into Montreal. So it was a very good exchange of ideas. So we'll just go ahead then. And you've got this microphone and this microphone.

Who would like to come up and ask the first question? Yes, sir.

MR. HURLEY: My name is Tom Hurley, H-U-R-L-E-Y. And I'm a land owner, or a homeowner in Wilson, and I'll make an observation, which I'm not sure it's my observation, but from talking with neighbors where we lived in Youngstown before, and in Wilson, it seems some 20, 30 years ago there was 20, 30 feet of beach. And most recently it seems there is no beach and people are losing land, spending a lot of money for revival work. So I guess my question is, is there a time in the future that we'll see the lake level stabilized to the point of knowing what kind of work has to be done so homeowners don't continue to lose property?

MR. STREIBEL: Okay. We've got a slide that I think will help answer that question. Pete, do you want to address it?

MR. ZUZEK: Okay. My name is Pete Zuzek, a coastal scientist with the study. I've spent the last three and a half years working specifically on the issues relating to the riparian properties around Lake Ontario and the upper St. Lawrence River.

We had a very similar question yesterday so I had a dry run. And I'm going to take you through a few slides that will hopefully help to answer your question as to why you don't see a beach in front of your property today. It is a very complex answer but we'll try and give you some tidbits of why things have changed.

The slide that you see up on the screen has time on the X-axis, so along the X-axis, this is time, and you won't be able to read the numbers, but it starts in 1900 and it ends in 2000. So we have roughly the last 100 years of time on the X-axis. On the left-hand side, on the Y-axis, we have the supply of water entering Lake Ontario via the Niagara River. So these are the supplies of water, which is -- the Niagara River, as Dan mentioned, is the principal source of water for Lake Ontario.

What happens at the Niagara River on a weekly, monthly and yearly basis is the principal factor that affects the water levels in Lake Ontario. At the turn of the -- at the beginning of

the 20th century here, in 1900, the supplies were roughly average, then they started to decline, right to about 1960.

FLOOR: Could you tell us what those are, what the water levels are saying, during those time periods?

MR. ZUZEK: Those are units, cubic meters, cubic. It's a volume, it's a volume. We'll see -- the next slide I'm going to show you is water levels, which is the actual -- and that's sort of the interpretation of this, but let's get through this slide first.

So we have a volume of water here, and it's not, not important to know the actual dimension, but just follow the curve. They've been dropping all through the early 1900's. This was the drought in the 1930's. They came back up again. They dropped down in the '50's. This black line is when the dam became operational.

Immediately following the operation of, opening of the St. Lawrence Seaway and the dam, we had the lows of the 1960's. So we had the lowest supply of water into Lake Ontario in the last 60 years. And that's the principal reason why you had wide beaches in front of your property, you had lots of sand, and you didn't have the extreme erosion problem you have today. It was a lot less water being fed into Lake Ontario and the levels were much, much lower.

Following the mid 1960's we've been starting this gradual climb to the peak where we are today, where there's been a lot more precipitation in the upper Great Lakes which is feeding through the Niagara River and into Lake Ontario and consequently there has been a lot more water to deal with.

So the levels of Lake Ontario have been higher since the mid 1960's, that's not because of the dam. It's climatic related and due to the fact there's simply been more water entering the system. It's part of the natural variability. It is a very, very big coincidence, but as I'm going to show you in the next slide, the next slide shows us water levels and this may be a little bit more familiar for people. Follow the red line. The red line is the seasonal rise and fall of lake levels. If you're familiar with those units and feet, 244 at the low range, 247 is at the high range. You'll see here in the early 1960's is that period when it was extremely low supply. It didn't rain as much, we didn't get as much water from the Niagara River, and consequently Lake Ontario hit its record low in 1964, in the spring. We hit a record low period.

Since that time it's been more water, more water to deal with, and we're up in the range here with the red, the blue -- the red, sorry, the red curves. So we simply have more water to deal with.

Now, as far as the dam goes, it's a coincidence as the gentleman mentioned, what the blue line, which is generally one to two feet higher, is showing you, the estimate based on computer models, hydrology, all the scientific evidence, is the level of Lake Ontario if the dam had not been constructed. So without the power dam you would have experienced the water levels you see in the blue curve. And so in a nutshell, every major storm that you've seen on Lake Ontario you would have had one or two additional feet of water to deal with. And that is hard for people to accept. I see a lot of people shaking their heads and probably thinking different things in their minds right now. But the reality is that without the power dam in place, we would have had these water levels in blue. It would have been much

higher than they are today. The dam has been able to address those high supplies and send more water down the river.

MR. STREIBEL: Is there a followup question, sir, you'd like to ask?

MR. WITKOWSKI: Yes.

MR. STREIBEL: Okay. Would you please come up to the microphone and give your name, please. And where you're from.

MR. WITKOWSKI: My name is Jim Witkowski, I'm from Akron, New York. My name is W-I-T-K-O-W-S-K-I. And I've asked this gentleman, Peter --

MR. ZUZEK: Zuzek.

MR. WITKOWSKI: -- if he is being paid by the IJC. That's all I want to know.

MR. ZUZEK: In answer to your question, yes, I am a contractor to the IJC. Let me add one thing to that, and that's simply that, I'm a scientist, I'm a registered professional. I practice under a code of ethics. All of these things require us to do our job with the utmost integrity. And so if you feel that someone like myself or a professional engineer is not doing his job correctly, as far as lying to the public, there's means to address those concerns. These are the --

MR. STREIBEL: I have to say that as far as I'm concerned, the coastal, and I represent a lot of the south shore of Lake Ontario, the coastal probably has more science associated with what they've done to date than any of the other technical working groups.

They can actually substantiate and prove what they're saying. You've just seen a couple of slides. These slides are general slides but there's a lot of detail behind those. Okay. Anybody else? Yes, sir.

MR. DEMORGEST: My name is Bob Demorgest. I live two and a half miles east of here. And my question is in reference to IT Ferry running between Rochester and Syracuse. And I was just wondering if there has been any studies, computer models or anything else from the '30's made by IT Ferry north across the lake, because we -- there quite a bit current coming down where we are.

MR. STREIBEL: I can probably answer that. I don't think there was a great deal of research done relative to the routing. I think the routing of the ferry was generally done to accommodate the customs people, the coast guard, from a safety point of view, and primarily those issues.

Now, I'm from the Greece-Rochester area, so we get the peak benefit of that as well, as we have been working inside the Town of Parma and Hamlin also has been involved, trying to work with those people. In fact today, I've been in contact for about a month and a half, making them aware of that, trying to see whether they could work through that.

I don't know about this end of the lake, but down at the other end of the lake they moved out further and things got better for a period of a few days, and then things got worse again. And the day, it was ironic, but the day that they shut down temporarily, everybody

hopes; but the day that they shut down was the day that I was on, I had been on in the afternoon, a knock on the door because they hadn't been communicating.

The issue with the ferry is, they want to be a good citizen, but they don't know how to communicate with the public. And that's, you know, that's been one of the big issues.

MR. DEMORGEST: Well, my question is is there going to be a computer model made before they resume service?

MR. STREIBEL: I can't say there's going to be a computer model made, but all I can say is, we can keep hammering, and the study in fact, they're going to make some contacts as well, so that we can try to alleviate this thing. Obviously it's a principal of the design of the ship. It's a principal of speed, and it's a principal of distance, or distance from shore. Now, coming out here, you know, I notice that you're very close to the shipping channel. It's right there.

The freighters go by. We don't see the freighters down in the Rochester area. They're quite a ways out. And this ship was, this ship was invisible in the Rochester area, as your freighters are that are going by here every day.

MR. DEMORGEST: We can see them as they go by.

MR. STREIBEL: Yes. So people are looking at it, the communities are talking about it. They're talking to these people, and that will be an ongoing sure thing until we get it resolved.

MR. DEMORGEST: Thank you.

MR. STREIBEL: Dave, you want to stand up.

MR. WINTON: Dave Winton, New York State, I'm on the rec boating tourism work group. That issue has also been raised with the Department of Environmental Conservation in Region 8 in Avon, which is Rochester, or Region 9 here, but I know their communication, so DEC is also looking at it because of the concern of erosion and the surge on shoreline properties.

So it has gone up through the chain, has been acknowledged. There's several research reports that have been done overseas where this type of ferry has been used before, in salt water. They're trying to translate them and look to see how that can be looked at in regard to Lake Ontario, so they're now doing an analysis to see what recommendations they can make that the DEC is involved in.

MR. STREIBEL: But this is just, make sure we're all clear, the purpose for this study is lake level regulation. Thank you. Anybody else have a question?

MR. MASTERS: My name is Mike Masters. I have a summer home in Carlton and I live in Greece, New York. On Thursday, September 16th there was an article in the Democrat and Chronicle that says the heads of ten State's and Canada provinces bordering the Great Lakes are developing guidelines on how the water is controlled and may be used. How is that committee going to interact with this group?

MR. STREIBEL: Well, that's a separate issue. That is an issue that came up, I believe, when, somewhere in the Canadian area they were going to export water by tanker, if you will, to other parts of the world. And a group of governors that border the Great Lakes and the two Province Ministers got together and they came up with a plan that would require exporting of water, if it were to happen, to be a consensus among all of them. In other words, everyone that borders the Great Lakes. So this, this plan is one that essentially prevents, prevents that from happening, and also requires that those people that take water out of the lake within the watersheds of the lake, that a good, a very high percentage of that water be returned to the lake. So the water has to reside within the watershed. Anybody else want to comment on that?

MR. KLEIN: I'm David Klein of the environmental technical working group. What you're referring to actually is a separate process called Annex 2001 of the Great Lakes charter. And as Max has said, it aims specifically at coming up with consistent standards and a consistent basin water approach to water withdrawal from the Great Lakes.

MR. MASTERS: I just thought that the withdrawal of water may have an effect on lake levels and I would think that the groups may want to get together.

MR. STREIBEL: You're making a very, very good point. There has to be a coming together in terms of methodology and in terms of thinking on these two processes. At the moment they're operating somewhat in parallel

MR. MASTERS: It's interesting, but right now, this question came up last night in Greece, you know, right now when the water, there's as much water as there is in the lake, it would seem to make sense. Why don't we ship some of it off, but then comes a time when the levels are down and some sort of a need has been created that now becomes difficult to, you know, to turn off.

So I think they're being more conservative in how they're dealing with that. We'd like the people, to be honest with you, I think we'd like the people from the Southwest part of the country where they need all this water, and other parts of the country where it's drier, we'd like them to move back up here, to fill some of our factories and whatever. That's just me.

FLOOR: Bring the jobs back.

MR. STREIBEL: The lake levels, I think they're what slightly below long term average, and Lake Ontario right now is slightly above. But let me just finish. I think a lot of that is due to the fact that the precipitation that we've experienced recently has been more in the local watersheds. We've had more precipitation in the Ontario watershed than they've had in some of the other Great Lakes.

MR. CUTHBERT: My name is Doug Cuthbert and I'm the Canadian director of the study. I didn't quite understand all of your question because it wasn't on the mike. But where you relating to the upper Great Lakes or further west?

FLOOR: The upper Great Lakes.

MR. CUTHBERT: Okay. Yes. Certainly in the last six years those lakes have experienced less water supply, less precipitation and much lower levels. The lower Great Lakes, Lake Erie and Lake Ontario, haven't experienced quite the same conditions. Of course this last year it

hasn't -- Lake Michigan and Huron have gone up over a foot in the last year from what they were a year before. So they're still a little below average but they've recovered considerably. Lake Erie and Lake Ontario are above average. But that's typical of natural cycles and water supply conditions. We'll get two or three years or more of drought and then get some wet weather. Who knows what next year will bring. But that's within the variability, you can see that varies year to year and you know, compared to, say the 60's, we've seen physical fluctuation in levels.

MR. STREIBEL: I'd just like to add one thing. There are those of us that have requested through the Board of Control, which controls the water flow through the dam, that we don't want to be in a position next spring, all right, due to the winter precipitation and the Ottawa River runoff which causes them to have to hold back water, to have issues next spring in the April, May-ish time frame.

So I think they're sensitive to that. They've responded in the past in a very positive way. And I would expect them to look at the current, about a six inch differential right now between the current lake level and the long term average.

FLOOR: What was the figure given for the amount of water that enters Lake Ontario through Niagara Falls, is that 85 --

MR. STREIBEL: It's up to 85%. Can we put that one slide up there, the one that shows Lake Ontario and the water coming in.

MR. BARLETTA: And what happens down the lake. Yeah, that's it.

MR. STREIBEL: Okay. Now, Lake Ontario, if you lowered it three quarters of an inch, all right, it would cause Lake St. Lawrence, which is on this side of the dam, Lake St. Lawrence was created, if you will, as a result of the dam and the flooding, to go down about 11 or 12 inches.

Likewise, Lake St. Louie, which is down closer to the Montreal area, would go up, I can't read it from here, about nine, nine inches. So you could see, if they pushed water out, they'd be very cognizant of how they let that out in order to avoid those huge spikes. So it has to be let out over time. And I guess what I'm suggesting is that the Board of Control has been sensitized to the fact that they'd better start doing that. But it won't happen overnight. If you want to ask for further clarification, I'm going to ask you to stand up to the mike, if you would. Just because we'd like to record it. Thank you.

MR. MASTERS: What control was there on the water going out the St. Lawrence River?

MR. STREIBEL: Did you see that earlier chart that Pete showed?

MR. MASTERS: Yes.

MR. STREIBEL: It showed the spikes up and down and --

MR. MASTERS: Right.

MR. STREIBEL: -- had the dam not been there, the blue lines show what it would have been. That's essentially what you would have had.

MR. MASTERS: Well, what would have prevented the water from going out then?

MR. STREIBEL: It would have been a natural -- it would have been based on the funnel of the lake going into the St. Lawrence River and then going through the system.

MR. MASTERS: The only, only thing that would be minimized in the water going out would be the constrictions of the river.

MR. STREIBEL: Correct. Or of the land, the land on either side that the river goes through. That's correct.

MR. MASTERS: But now they have more control of what goes out the St. Lawrence River, because of the dam?

MR. STREIBEL: Now they can prevent the high spikes and they could prevent the low spikes. In other words, they can control it within a tighter range than they would have if it were in the natural state.

MR. CUTHBERT: Perhaps I can help. When the Seaway project was built, they actually dredged a lot of the river in the natural control. So, that allows a lot more water to go out. And to compensate during low water conditions, of course you have a dam that can hold the water back. So, to get water out faster they dredge, and that helps the high water level conditions, the lower water conditions, the dam will allow you to hold water back. But as a result of that control, there's been ability to squeeze the range of levels that would have occurred on the lake otherwise. Reduce some of the extreme highs, reduce -- or raise some of the extreme lows. Does that make sense?

MR. BARLETTA: Let me try to explain it. This is a cross section of the river. The international rapids section was between Massena and Cornwall. Okay. There is a -- the natural control point is outside, up river this side of the dam, it's called Galue Island. They actually took off about 12 feet of the under water bedrock. That was the natural control point for Lake Ontario. Once that was removed, the control point got moved down here to the Long Sue Dam. About twenty --

MR. MASTERS: They did that at the same time they built the dam?

MR. BARLETTA: Yes. Actually, you know, the history channel had a program on a few nights ago describing how they built the seaway. And they described how they dredged out the seaway in that area.

MR. MASTERS: Well, my big question would be, now that they built the dam and the seaway project, that was done when; in like the 60's?

MR. BARLETTA: That was built 1950 --

MR. STREIBEL: Late 50's.

MR. BARLETTA: '55 around that area. Around '55 or '58 in that time frame.

MR. MASTERS: My question was going to be, the rules and regulations that we're now governed by were developed in like '58.

MR. BARLETTA: They call 58-D, 58-D. That's when they were developing them. They actually did not go into effect, I don't believe until '62, I believe like '62. Just like we're developing the plans now, we're --

MR. MASTERS: Those plans and so forth were all developed after the --

MR. BARLETTA: They were -- everything was kind of being done at the same time, okay. The International Joint Commission authorized the construction of the seaway and the hydro power in the early '50's and started doing that. At the same time they developed orders of approval that said that the seaway and the dam will have to be managed to meet certain criteria. Those are the criteria that everybody is aware of, the A through K.

Then they started working on developing plans that would fit those criteria, just like we're doing now. Okay?

They went through a number of configurations of different plans. They went through A, B, C and then they came up with D. Now, just like we are doing, we're going to come back next year with 2005 plans. Even if those are adopted 2006 won't give the I.J.C. the commission the final document. That probably won't be till about 2007, that the 2005 plan will go into effect. That same occurred in 1958 with '58-D. That plan didn't really go into effect until early '60.

MR. MASTERS: Well, my whole point is, since 1958 our technology and this dam project would seem that it would give us more control over the lake levels.

MR. STREIBEL: I think that's part of what this study is determined to find out. What you saw tonight is primarily the Lake Ontario piece. There's a piece for the lower St. Lawrence River. There's a piece right in the center area, okay.

They all have different needs as they step down. Montreal is over 200 feet below where we sit here on Lake Ontario. So those are all, those are all being considered. But let me remind you also that the original treaty between the United States and Canada, okay, provided for commercial shipping, hydropower and municipal water. Okay. Those three things.

It didn't take into account in the original plan, it didn't take into account riparians or shore owners. It didn't take place -- into account, environmental considerations, which was something they didn't have to do back when they put the original plan together.

So those were two things. And recreational boating. Recreational boating has become a bigger issue here in Lake Ontario as well as in the St. Lawrence River. So this is an opportunity to try to look at all those interests, not hurt any specific interest more, in other words, than they are right now, not make the situation worse for any individual issue. That's the goal of this.

If the, if the original plan, 1958-D, and you heard Dan talk earlier, it's now really DD, which meant that the original plan they had to deviate over 50% of the time.

Why? They had to do it for different interests. They've done it for recreational boating, to help them. They've done it for coastal folks that live along the shoreline. All of these cause deviations that the Control Board had to do. Well, because of the better science and because of better forecasting techniques and everything they feel that now they're in

position, all right, to come up with some different regulations that aren't going to be -- you know, don't expect there's going to be some real large differences going on here. They'll be subtle but they should help manage this system a lot better, and that's the first time we've probably had all the minds together.

We've had stakeholders, you folks involved providing input for the last three years. All these things go into the study, as well as the comments that are made tonight. So everyone's working as a team to try to make it better for everybody, by not putting any particular interest at a disadvantage.

And I'm very pleased that coastal is being considered because coastal really wasn't considered except when we complained as a group, and hopefully that will, you know, that will now be improved once new regulation is put in. Yes, sir?

MR. CARROLL: My name is Jim Carroll, C-A-R-R-O-L-L. I live on Lake Road in the Town of Porter. I just have a comment and then a question. I think Friday night turned out to be a bad choice of nights for this meeting because the majority of the people in here are part of your committee or a politician or somebody else. I've been to these meetings, you know, since the plan was first brought up and the attendance I think was a lot stronger back then.

My question is, back when they first started talking about the plan here in Olcott, those meetings were attended by the Corps of Engineers and the New York State DEC. I'm wondering why during the last few meetings now have they not participated?

MR. STREIBEL: Well, first of all, the Corps of Engineers is present, and secondly, the DEC is part of the Study Board so they're deeply involved in all the activities that are going on. There's no one here this evening representing the DEC.

Relative to your comment, you know, I understand your concern about a Friday night, but let me tell you, I've been to a couple other meetings and this is a fine turnout. All right. We're very pleased that folks would come out on a Friday night, take the time on Friday to come out, and hopefully see what's been going on and have an appreciation of what the team is trying to do.

MR. CARROLL: I'm glad that they showed up as well. But it's a shame that more of our neighbors didn't attend this.

MR. BARLETTA: There was one other reason why we picked this night too, when we did -- we came out with a tentative schedule and passed it around to the PIAG members like Tony, and we asked some of the community people. One of the responses we got back actually from, I think one of the yacht clubs in the area said, we have races on Wednesdays and Thursday nights. Please don't have the meeting on a Wednesday or Thursday night.

And that's, you know, why we ended up meeting on a Friday night.

MR. STREIBEL: But we're pleased to be here. We're pleased to be here. You folks have a good showing tonight. Jim.

MR. WARD: Good evening, everyone. First of all, I want to thank you for your diligence in this process. Jim Ward. I'm actually speaking as a past county legislator that as you know has been involved in our concerns for over the past 10 years. I'm here though representing

Senator Maziarz, but I'm also speaking for myself. I want to thank you for your diligence in this. At least it's giving us an organized voice, but most importantly, our concerns still haven't changed. And like you said, like this gentleman mentioned, I called a meeting here, oh, close to 10 years ago, we had 400 people in this room, right here in Olcott. And it's sad that the frustration of the land owners has created an apathy and I believe that's out of distrust, that nothing will change. And that's a real concern. I hope and I do have faith in you, Max, and some of our other local representatives at this end, that you will carry the voice of these landowners and how important that a change is needed.

I have three questions. They'll be brief, but now there's four because of a good question that this gentleman brought up about who this other man is paid by, the I.J.C., and that's that he's telling us that we would have lost all these beaches and property just because of increased precipitation naturally, even if there weren't any controls or infrastructure changes, that we would have lost these beaches naturally, that's --

MR. STREIBEL: Very high periods of water. You saw that graph that showed the volume. That's what that would suggest.

MR. WARD: Yet we've been told for years that Mother Nature will change these things naturally.

MR. STREIBEL: That water supply is Mother Nature. The water supply coming into the system is Mother Nature.

MR. WARD: So we would have lost all these beaches in these last 20 years?

MR. STREIBEL: Jim, I've got a picture in my office, and you all can probably relate to this; and it shows Crescent Beach back in 1964. All right. And people had docks that went out 150 feet, and had boathouses on the end of them. Today --

MR. WARD: What year is that, Max?

MR. STREIBEL: Back in '64. Today, okay, the water is up close to shore, and it reflects that increase in water supply. The water supply has nothing to do with the control.

MR. WARD: Well, when was Massena put in again?

MR. STREIBEL: Massena was put, when did it start, '60. Take a look, you've got to come up. I know the arrow shows -- '62 is right there so you can see approximately where we were. The dark blue represents water supply.

MR. WARD: So, but that's a new control.

MR. STREIBEL: No, no, no. Water supply is what comes in either through the Niagara River, through the local --

MR. WARD: I think these people's concern is that it, you know, you're saying that we believe that it's ironic that both of these happened at the same time. All of a sudden we have this increased precipitation and inflow of water, yet the dam was put in at the same time.

MR. STREIBEL: If you had, if you took the dam out and you remember that other chart we had up there that showed what the water levels, unregulated, what the water levels would have been, you would have seen the periods when it would have been worse. So what happens naturally, the river was able -- where it spigots into the St. Lawrence River be able to take X amount of water, right?

MR. WARD: Yes.

MR. STREIBEL: Okay. And that water going through, all right, would have probably caused havoc in the Montreal area. Okay? You with me?

MR. WARD: Yes.

MR. STREIBEL: The lake still would have only taken so much water at a time. The lake levels still would have been up. As you can see, the blue lines represent the levels of what the lake would have been without regulation. That's why I said earlier, with the dam in place, and Jim --

MR. WARD: But they've had that dam much before this increase that they couldn't even anticipate it.

MR. STREIBEL: Jim, I had the same thing when I started this project, okay, as a volunteer. All right. The same problem. This system is so complex. It really is a complex system to understand and to try to make it understandable, you've got to use charts like this that shows what it would have been like versus what it is as a result of the dam. And as I said, without the dam, the fluctuations would have been the high, the real high low spikes. With the dam it's been able to control the low spikes, okay, on this end here, and it's been able to control the higher spikes that we would have had without the dam in place.

MR. WARD: Okay. So in finality then, to answer my question is, you're telling us that we would have lost all these beaches and everything naturally.

MR. STREIBEL: They would have gone naturally. Now what we're trying to do, and what --

MR. WARD: Hundreds of feet of beach.

MR. STREIBEL: What the study is trying to do, what the study is trying to do, is determine as Pete Zuzek indicated, from a coastal point of view, where erosion really accelerates. And that's why that figure, that potential figure of 246.7 comes in, all right, as being an upper level. You know now that if you ask the Board of Control, they'll tell you, we can operate up to 247.3. All right. That's something that the study, the coastal people are saying is too high because when it gets that high it accelerates the erosion process.

Now, unfortunately, the other thing that's made things a little more complex, okay, is the same thing that the people down shore to the river have stated, as you folks have stated, and that's the theory when it was operating. That's created a new erosion factor.

If you understand the waves that are coming off of that ship, they're very powerful, and when they hit a breakwall, okay, or they hit the beach, whatever you have, the -- it's almost like, let me say it this way. If ever you've been to a real beach, ocean beach on a

calm day, and when you watch the waves come in off the sand, and they sort of guide and go down the shore. That's exactly what this ferry is doing.

The waves come in and they, like they ricochet right down the shoreline. Very powerful. And it has undertow which sucks sand away. So that's something that has to be resolved outside of this particular environment we're talking here tonight, but it's being worked on.

MR. WARD: Okay. I guess I'm going to trust Max and where we both started out in the beginning on this, because I don't have the trust in the IJC, never did when I went to Sacketts Harbor to speak on behalf of the people I represented, and I still don't.

I just hope it's not a cover for these important landowners. But anyways, going forward, when you talked about your models I think it's real important that, you know, after these years of addressing this that monitoring of the rainfall in the upper lakes will become part of the modeling for control in the future. We talked about that, what was it, last year in Wilson also.

I hope you are going to make that as a recommendation in your modeling.

MR. STREIBEL: That will all be, that's all going to be factored in.

MR. WARD: As a control factor, not just by what's happened, but to use that as a control in the future since we're the dumping ground --

MR. STREIBEL: I don't know how that ties in by itself. Okay. I can't relate to that. I don't know if anybody wants to take a crack at that.

MR. WARD: We're a dumping ground for the rest of the lake.

MR. STREIBEL: Just one second. Let Doug say something.

MR. CUTHBERT: Doug Cuthbert. The current regulation plan does not have a forecasting component in it because when it was designed they didn't have the technology for that.

MR. WARD: I understand that but we'll hope that the -- okay.

MR. CUTHBERT: But currently we, in our design we do have a forecasting component. How we work it in and how effective that will be, it will be as effective as technology allows. There will be a forecasting component though.

MR. WARD: Okay. And if you bear with me just real quick, has there been any dialogue with the IJC over the last year with all this input? I know you're waiting to give them a complete model and everything but has there been any general discussion of the input and data that you received and what's been their response?

MR. STREIBEL: Just a second, sir. We still want answers. Russ Trowbridge, would you like to address that, please?

MR. TROWBRIDGE: I'm Russ Trowbridge, I'm the IJC liaison. We're in constant contact with the Study Board. We participate in the plan formulation and evaluation meetings. A lot of the technical working group meetings. We have commissioners up here observing what's

going on. We've had them on the ground looking at everything that is going on, meeting with stakeholders.

Unfortunately we do not have a commissioner here tonight, but a commissioner has been at every meeting we've had on this side in this round and they will continue to be involved.

MR. WARD: Since this advisory counsel started, you mean.

MR. STREIBEL: There's a great sensitivity on the part of the three commissioners. And there's three U.S. Commissioners. As to the problems being experienced from the Niagara River right down to Oswego.

MR. WARD: But they've been participating since this counsel --

MR. STREIBEL: Oh, yes, yes.

MR. TROWBRIDGE: Because they haven't been previously. And the other is just, maybe you could remind us of some data we were trying to discuss from years ago. Can you tell us what the water levels were in around the, 1925, '30? Do you have that data? Well, Max, you can go on, maybe you can get that information before the end of the meeting.

MR. STREIBEL: Okay. I'll see. Do we have a slide, Dan, on that?

MR. BARLETTA: I think we might.

MR. STREIBEL: Sir, your name and where you're from.

MR. NAPOLEON: Brian Napolean, and --

MR. STREIBEL: How do you spell your last name, sir?

MR. NAPOLEON: N-A-P-O-L-E-O-N. I'm a landowner in the Town of Porter. And I'm just interested in the study that the engineers have done with the water, and if that is true then shouldn't the IJC reconsider control of the upper lakes because I know in the past they decided they would never do anything anywhere else, but shouldn't they control more?

I mean, this actually proves that they need to control the water that comes into Lake Ontario, not only what goes out.

MR. STREIBEL: Who would like to take a crack at that?

MR. CUTHBERT: Doug Cuthbert again. Actually they did a study approximately 15 years ago to look at the potential of putting dams at the other side of Lake Erie and the other side of Lake Huron.

MR. NAPOLEON: And they said it would cost, and they stopped.

MR. CUTHBERT: But for Lake Ontario it was more than cost. If you put dams up there people were concerned about water levels fluctuating up there. They were having the same sorts of storm damage and erosion. They said, build dams, that will resolve our problems.

But it essentially meant that more water would come down into Lake Ontario but the levels are high upstream, causing you more problems.

MR. NAPOLEON: But they can control Lake Ontario, it's been shown. Easiest shown proof that if they didn't have those controls, the lake would have been higher. Why can't we do these same controls in the other lakes? It looks like it's better if they control everything.

MR. CUTHBERT: In order to reduce the variations of levels in Lake Ontario you have to increase the flows out of the St. Lawrence River when the levels in the lake are high, and decrease it when they're low. That increases the variation of the levels in the St. Lawrence River and up through Montreal. And that's something that they're concerned about.

If you were to do the same thing on Lake Erie, build a dam, get all water out of Lake Erie when their levels are high, then Lake Ontario's levels are going to increase. So you increase the variation of levels on Lake Ontario, that would be making your problems worse.

MR. NAPOLEON: It just seems logical when he does this nice study here, that if we have controls, we need controls everywhere.

You're just putting the controls in one spot. And then you're saying 85% of this fluid water is coming down. But some years you might want to put the 85 gallons. Some years you might want to put 95 gallons, some years you might want to put 70 in.

MR. CUTHBERT: What he didn't show was what happens to the St. Lawrence River at Montreal, when the levels fluctuate even more.

MR. NAPOLEON: Well, then I think they have to take everything into account. They're trying to do it at only one spot. I think they need to take into account more.

MR. STREIBEL: Certainly it's a question that we've heard. We'll register in Canada.

MR. CUTHBERT: There is a proposal that the IJC has made to look at the controls on Lake Superior, which is the wind control area, and after this study is completed, assuming that both the Canadian and U.S. government provide funding, a study will be done on that. Part of that will be looked at. But there's no plan at this point to build additional structures in the other place.

MR. STREIBEL: And I think I'm correct, but maybe I'm wrong, but I think the good news is, the results of the study and the science that's going into the study will be available for others so we don't -- they don't, if they decide to do another study, won't have to reinvent the entire wheel. I'd like to go back to Jim for a second. Jim, this is a chart here that shows the levels that you were talking about.

MR. WARD: Thirty years ago I'd be able to pick that out from back here.

MR. BARLETTA: Okay. What was your specific year?

MR. WARD: From '25 to mid '30's.

MR. BARLETTA: Okay, the '30's. This is a real squiggly line. What the blue line is is the monthly averages. The darker line in the middle is actually the long-term average, what the average was for the year.

Okay. So here in approximately, I'm going to say 1936, it was about 243. You said 1925, which is right about here, about 244, the low levels.

MR. STREIBEL: Does that answer it, Jim?

MR. WARD: No.

MR. STREIBEL: Want a copy of that? No?

FLOOR: He was interested because that's his birthday.

MR. STREIBEL: Oh, all right. Who's next?

FLOOR: Do you have a chart like that that shows the level, the monthly level that could have been had there been no controls on it after the '50's? You show the spikes over the year, without controls, but that's only before -- today it could have spiked up like that.

MR. STREIBEL: Weekly. That was representing a weekly amount of water. That chart that you're referring to that showed the red and the blue, the pre -- you know, the dam versus no control.

FLOOR: That was over a week?

MR. STREIBEL: A week's period, yes.

FLOOR: That's a yearly. So that spike, the top level spike should only have been on the lake for a week, if -- you know, if it was during a storm surge. And really it could have been like that for a week and then gone back down to a low level.

MR. STREIBEL: Who wants to take a crack? Anybody?

MR. ZUZEK: The levels that you're seeing there, let's go with the blue this time, the top level, that is a monthly average, so when you -- let's just take one of these top spikes here. It likely happened in June, in the summertime. That one top spike is a point, a data point, that they average for the month of June or July for example. And as that blue line starts to dip down, you go through August, September, October, November, bottoming out probably some time in January, December, start coming back up.

So what you're seeing there is a continuous record that's the monthly average. So they're not just spiked from a storm surge or an individual wind event, this is a continuous record of water levels in just an average on a monthly basis.

FLOOR: So that doesn't fit on a monthly --

MR. ZUZEK: No. This is a continuous record, consistent average over a monthly period. You're going to have a higher spike, because as we said, if you had a storm at that average, you might have had another foot or foot and a half.

MR. STREIBEL: Sir, just a second, please. First of all, we're going to want you to grab a mike.

MR. CUTHBERT: What we're discussing here is will the storm surge actually cause a change in that graph? And the answer is no because that graph represents an average of all the gages around the lake. If you get a storm surge at one end of the lake that gage will be higher, but it means that on the other end of the lake is going to be lower. So if we try to take that into account, it certainly recognizes that that graph can still be reproduced on a weekly basis, because we have that data.

And on a weekly basis we know on a certain location on the shoreline, there's storm surges and that causes the level to go up considerably depending on where the storm is hitting and the time of year. Okay. We've got someone who's being very patient over here. Go ahead and ask your question.

MS. STOUTENBURG: My name is Katie Stoutenburg, S-T-O-U-T-E-N-B-U-R-G. I'm the environmental assistant from Niagara County. I'm not paid by the IJC. I'm paid by your tax dollars. And I don't have a question, just so much as a comment. And I think that I make this to the board.

I think that the residents here are really struggling with concepts, and you know, the presentations; they may be, you know, graphs and numbers don't really illustrate what you're talking about here. But the issue about shoreline erosion, this is for the residents here, you have to realize that lakes, rivers, streams are not static systems. Their levels fluctuate.

They move in and out. And I think maybe it will be helpful, you know, in the future, if you think about a lake as really just a very large stream. If you think about a stream in your backyard, I think this is sort of a good analogy. A stream over its lifetime will meander back and forth, and as it meanders, based on precipitation and climate, it will meander back and forth.

And as it meanders, it's going to take land on the left and it's going to take land on the right. And if you build your house on the left, one year it's going to take some of that land, and over a period of 30 years it's going to take your neighbor's land on the right side of the stream. And I know it's hard to think about, but the same thing is happening on a grander scale on Lake Ontario. The effects aren't, they don't happen, they happen in a grander time scale, grander time frame, but that is what happens in nature.

So yes, when they are saying that your lake, your beachfronts would have eroded naturally, that's very true. That's what happens in nature. And a hundred years from now, there's going to be plenty of beach again. That's nature. And so maybe these concepts could be better portrayed by the board, you know, graphically, or I think my --

I just noticed, this is the first presentation I've been to, but I think it's a lot of information, I think a lot of text is difficult for anyone to take in, and maybe kind of just narrowing it down

to the basics, narrowing it down to specific ecological concepts that, you know, any Joe or layman off the street can really understand. And that's all I have to say. Thank you.

MR. STREIBEL: Thank you. That's one of the reasons we're here, and that's why we like the input and the questions so that things can be clarified. If we can answer them for you we'll do that. As I said at the beginning, if we can't and we need to further clarify with you, we'll do that as well.

Yes, sir?

MR. OLSTAD: My name is John Olstad, O-L-S-T-A-D. I'm from Pendleton and I'm really not affected as much as the rest of you are. Can you give me a crystal ball look at where you think your panel is going to be heading, your recommendations to the IJC.

And secondly, as it relates to the water level of the lake, how much is affected by storm surges? How much can the residents around the perimeter of the lake foresee in the future storm surges raising and lowering the level of the lake?

MR. STREIBEL: Who would like to take a crack at that?

MR. STAKHIV: Let me start with -- I'm Gene Stakhiv, I'm the U.S. co-director of the study. Let me start with the easy part. Predicting storm surges. Statistically we can predict storm surges on an annual statistical basis, probabilistic basis.

For example, the hurricanes that hit Florida. We have a hundred year record. We know that on an average year two and a half hurricanes hit the United States, varying from zero to five. Same thing with storm surges, storms, the levels, and they have been built into the model.

So using a hundred years of data that they have collected over Lake Ontario, they have literally hourly water level fluctuations and they can replicate any combination of storms. So that's already been done, and that's the easy part. What are we going to do in the study? What are we going to recommend to the IJC?

We're developing plans, a whole series of different variations on 58-D, to take into account the shoreline issues, recreational issues, so there are plans that help the environment, there are plans that help the recreational boaters a little bit more, but all of the plans that are being developed are developed in such a manner so as not to make the situation worse for anyone. So we're trying to change the criteria, change the flows, change the lake levels, the various methods of operation, and there are basically lots of small permutations. So those, the formulation of those plans is progressing.

We're going to start evaluating those plans, comparing them on economic bases, on environmental basis, on trading off the operation of the plans for benefits for Montreal versus for Lake Ontario. All of these things are being done over the next year.

These plans then, the board and the Public Interest Advisory Group is going to look at these plans and start deciding which is the best for the public at large, the general public interest. Some of the recommendations, some of the subsidiary recommendations that we're thinking about is also looking at the control board, the people who will make the decisions. We're not making the decisions, the day to day, weekly decisions on how to operate Lake Ontario.

There's another group of people. They may have to be changed. Their organization, their format, the membership needs to be changed. They may need additional technologies, they may need additional professional staff to take into account all of these new technological issues. There's a lot of information that we've developed that's beyond the ability of any group of people to really sit down and use. So we'll have to rethink how this whole control board is organized.

And there are many other subsidiary issues that we'll be looking at, including mitigation. It may not be the best idea to operate the lake, for example, exclusively for environmental purposes. There may be mitigation measures. We could build wetlands, we can build weirs around existing wetlands to help regulate the water levels.

But that's for someone else. We can only recommend and propose these types of mitigation measures as well. So that's a little bit of a preview of the types of recommendations that will come out of the report.

MR. STREIBEL: Russ.

MR. TROWBRIDGE: It's also worth bringing up that there are a number of side benefits that will come from this regardless of what decisions will be made, and there will be a series of best options that will be laid out for the commission.

One of the areas that we've noticed where we can make relatively quick improvements on is just communication between the control board and the public at large. That is moving ahead now. We are looking at providing them with some public communication assistance, trying to get out more professionally, more reliably, to engage with the public so the public will know what is going on.

In the way that you hear perhaps a weather forecast, and you have some idea of what the weather is going to be, same thing could be applied in terms of what water levels may be, and in fact there are communications that are sent out weekly on what the water level conditions are and what they look like. And we are trying to work with the control board to make sure that that has the best public exposure possible, and that it's done in understandable terms which people would be likely reached.

Another area which they are looking at is, there is a tremendous amount of material which has been developed on erosion modeling, what causes erosion. We are working with the New York DEC to determine whether they might be able to use this to come up with a more transparent and expeditious way of doing permitting for shore protection strategies and so forth. So there are a number of other benefits that are coming out of this, and we are not necessarily waiting for the final results to come in before those come into play.

MR. STREIBEL: Thanks, Russ. One thing also, Dan noted earlier in the presentation, we're coming back next year, and when we come back next year, we're going to have some options. We're going to run those options by you folks. And it won't be on a Friday night. Hopefully it will be another night during the week. But that will give you an opportunity to look and input those options that we come back with. The what ifs, what if type of scenario. So that's going to be a real important meeting to be at next year as a follow-up to what you've received tonight.

MR. WHITE: Dave White again with the New York Sea Grant. Let me share with you an anecdote that will help you, and you need to localize lake level discussions as well. Sodus Bay to the east of here has two on Lake Ontario.

We had a public meeting last summer and the Mayor stood up in the early session that day and said, a marine operator called me up today and said the lake level went up 12 inches, which is physically impossible. But I stood up and said, you're right. And several of my colleagues, I'm sure looked at me and thought well, Dave's fallen off the boat already.

What he had experienced is the fact that we have sustained winds out of the north. We had no precipitation. Three days of sustained winds out of the north physically moved the water into Sodus Bay through the jetties. Sodus Bay had gone up 12 inches. It then takes, once the winds subside, depending on prime conditions, anywhere from 12 to 24 hours for the water to go back out of the bay and level off. So Sandy Pond on the east shore can change three feet due to nothing but wind driven water with a strong west wind.

The lake level itself, if you had a flat lake, hadn't changed. It just pushed water. So, I heard that you also looked to your local issues as what are those climactic conditions that may be affecting where you are, that really have no significance, I mean, they may be, if the lake is higher obviously it will be higher, but if you're experiencing a large -- people saying, oh my God, the lake went up a foot and a half, it may have in your case because of the weather conditions that are occurring that day, depending on where you are.

So, the Mayor came down and said, well, gee, I guess I haven't lost, and I said, no. In Sodus Bay they did, out on the lake it didn't. In Sodus Bay it hadn't, it just took time to go back up through the system. So, it's a very complex process, and there's a lot of folks you can call on that can give you some of that very local information of how it may impact you in an abatement, a tributary as that water fluctuates and changes.

There's a whole lot of information that's out there that I encourage you to check with your local people or anyone you can to get that localized information that will help you better understand. But that's, but the neat story from last year, and the Mayor didn't feel good after that.

MR. STREIBEL: Thanks. Ma'am?

MS. HURLEY: My name's Sue Hurley and I've been a lake resident for about 20 years. Basically, going along with the young lady that was talking about the environment, we basically at this point in time due to the the dam that's west of Montreal, at the present time we don't really have a natural situation. We have something that controls the dam, and that raises and lowers the level of the lake.

Mentioning to the gentleman that talked about sea grant, we lived at 1459 Lake Road down in Youngstown for 17 years, and I can tell you, we would come home in April and the lake level would go up to the three feet, and it would go up to the three feet in a period of two weeks. I'm going to say that that sounds actually impossible.

Well, it sure as hell happened because we had a gentleman down the road that had a concrete dock that had been there for many, many years, and we would be down two to three feet when we'd come home in April, and before the end of April it would be up at the

top of that dock and it would stay there all summer long. It might fluctuate a few inches but it didn't fluctuate very much.

So I guess really what I'm, the question I have is more in keeping with, what the hell do we do now that we've got this. So in line with that 245 foot level which may help us, if this study group is doing anything with regard to enlightening or educating the people that actually have some work that they do along the lake.

When people are seeking a permit to do work, are they being informed about the fact of what the high level mark is and what it's going to be and what they need do in order to protect the property owner's shoreline so that they don't lose more than what they have already lost?

MR. STREIBEL: Anyone want to comment on that? I know in the Town of Greece, I know in the Town of Greece we have eight and a half miles of shoreline. They do have that information so they do know at what levels not only building construction but also breakwalls should be. Pete?

MR. ZUZEK: Pete Zuzek again, the coastal group. We've talked quite a bit about erosion tonight. Our group representing the coastal riparians, the shoreline owners, is also looking very closely at the existing shoreline protection structures. So the properties that now have seawalls, now have revetments and the various other forms, those are part of the analysis. And when regulation plans are developed, we study them, month by month, and look at how it would impact existing walls, existing revetments, existing shoreline protection structures.

So you should feel comfortable knowing that they're being studied. If a plan is developed that has higher lake levels, it would impact the structures in a negative manner.

That is being quantified with the models and it's being taken into consideration for the study. That's going to be one part of your study. The second part of your study -- or your question was really about education, and are we educating the construction people and the permitting people, and I think Russ mentioned that we're working with the agencies like the DEC.

We're trying to share our knowledge so that we can transfer what we've learned from this study to them. And so we are working to make this a grassroots transfer so that the knowledge is shared with the people at the local level who are the ones that you interact with to get a permit to build shore protection or that you contract with to build your seawalls so that you can build them at the correct height, as we mentioned. So that is definitely a major goal of this study, particularly as we get closer to the end, and we're down to about a significant amount of the technical work.

Now, there's many people thinking about how best to make use of this data so that it does have value well beyond the study.

MR. McKENNA: Could I add to this? One of the things that I've been talking with the regulatory folks is, they're all very used to telling us all what we can't do. And if you go to them it may be difficult to do things. And we know that that's happening and I've heard it at our other meetings.

What I'm trying to do is get the mind set changed into telling us what we can do, and helping us do something to protect our property and so that is very much one of my goals in this study, is to get the regulatory agencies, instead of telling us only what we can't do, to start telling us, help us and help us in a timely manner.

MR. BARLETTA: Let me add to what Tony was saying. One of my goals myself, I've lived on the lake about 20 years, about the same time as you have. I've gone to try and get permits and stuff. I know the hassles that you've been going through. I personally had to research to find out how high to build my breakwall.

One of the things I've been speaking with to the plan formulation group, and I've mentioned it to Doug and Gene, was at some point; and this has to do with the data that we're producing. Making that available not only for the regulatory people but for the people that, you know, want to build a breakwall, you know what your guidelines might be for water levels.

If you want to build a marina, and you want to put in a tributary, we're going to have the data, and correct me if I'm wrong, we're going to have the data that says, okay, if you're in this creek, we want to put a marina in there, this is what you're water levels could be. Do you really want to put your marina in there. Okay. Or any of the other, any of the other technical working groups, having some sort of base guideline so if somebody wants to do something they're going to be able to find that data.

Now, we're working with the IJC trying to figure out where we're going to put this data because there's an awful lot of it. Making it available to the public in the long term. Okay.

MR. STREIBEL: Any other questions?

MR. ORNIAZ: Thank you, I'm Jay Orniaz. I'm out at the Point Breeze area. A couple quick questions on the -- out to the dam, what effect did the 1973 grant that they gave homeowners to put in breakwalls. What correlation was there between that, if any? And what levels were they intending to protect against when they were giving, they were giving out these grants for the breakwall?

MR. STREIBEL: Let me answer phase one of that. I think grants were given, \$5,000 grant was given, I believe, per owner. And that was a result of the Hurricane Agnes, back in, I believe, was it, 1972?

MR. BARLETTA: Yes.

MR. STREIBEL: So that was the basis for that, and at that time I believe the Corps came through and surveyed all of those areas. And I think offered guidance on the breakwall construction.

MR. ORNIAZ: What was the level they were designed to be protecting against?

MR. McKENNA: I know a little bit about that. My property was improved with that \$5,000 grant before I actually purchased it, and my family's property was used for that. As I understand it, at that time they were direct grants to individual homeowners, and then you went out and hired a contractor, and I can tell just from where I am, there's, within a block or two blocks there are six different types of processes, so I know there was no regulation

and I'm not sure that there was any instance where they were trying to do anything with elevation.

The thought process then was it was a big storm that came in, needed to get something in front of that storm to stop it from eroding your property. That's how that worked.

MR. ORNIAZ: One final quick question on the levels. Where exactly do they measure, and how are they measured nowadays for -- is it satellite or a big structure?

MR. McKENNA: There's actually, I believe six gages around the lake. I know there's one in Oswego, Kingston, Welland. There's six major ones. Rochester has a gage. Toronto. And those are all averaged around to get you an average lake level

MR. BARLETTA: And you can get a copy of lake levels. I think they come out monthly and they're on line. You can get the weekly water levels from the International, St. Lawrence River Board of Control also. You can get on their list, or -- I don't think -- we have copies of this weeks data out on the front desk. But you get on their lists. You can actually have them email you on what the water levels are that week, what the outflows will be.

FLOOR: Any theory on how these gages work?

MR. BARLETTA: They are basically -- they've got -- Okay, the basic construction is, they've got a tube going out into the lake, it's under water, and it comes back through a tank. So, that the water, you know, you get the wave action hitting it, and there's a gage inside of that, because there's like -- it's similar to like in your toilet, you've got the lever for the bowl. It floats.

THE FLOOR: But, you know, it's almost mind boggling because the number is 246 feet above sea level, above sea level.

MR. BARLETTA: The sea level is based on a gage, it's marked out at -- I'm not sure exactly; it's out on the St. Lawrence River in Quebec. I think it's about 180 miles in the river. But that area is very stable, as far as the lake levels. And they base everything off from that.

MR. STREIBEL: Okay, this gentleman has been waiting very patiently.

MARK KNOLLS: (Speaking through a voice synthesizer) You'll have to pardon my mechanical voice. I've lived on the lake since 1949 and the beaches we had were beautiful. But besides all that, this plan 1958-D entered, the plan they're working on. I don't understand what their reason, why we have to have a window between low water and high water levels.

I can understand because everything is based on wanting to get this thing to the recreational boaters and everything else. Because if they do that, in 1998 when we had all the high water, my neighbors and I, between all of us we spent over \$5,000 and five years before that when we had high water it was \$25,000. So, now we had a storm here a few weeks ago, we had water on the land and and if we have many more of those, I'm going to spend another \$5,000.

Now, in '98 when that water level was in line, everybody had to do all this, we had all our property destroyed. So, my wonderment is why do we have to work with a boilerplate window, why not give this land and make that a narrower window?

MR. STREIBEL: Well, I think, two quick comments, but I think the coastal technical working group, one of the graphs you saw; what they're proposing is an upper limit of 246.7. The upper level right now, as you notice on our graph, goes across the entire year, could be 247.3, and the IJC can operate up to that level, as you know.

So the coastal group has developed a science to say, no, there ought to be variations in that level all the way down to 245. -- I don't know what the exact point is. That's going to be thrown into the mix along with the economics and the social issues for coastal, just as recreational boating issues and their interests and environmental interests, the hydropower, the shipping, it all goes into this model that was referred to earlier. And that model will continue to evolve until we come up with something that, as Dan said earlier, that no one gets hurt, okay, any more, or has proportionately more a loss than they are today. So what we expect is a plan that's actually going to be better for all interests. I mean, that's the goal, to try to come up with something that will be better for all.

MARK KNOLLS: You're talking 246 with the lows, like right now it's 243 --

MR. STREIBEL: I don't know what that low is going to be. All I know is the, well, the low from a coastal point of view I think is, what is that?

MR. ZUZEK: 245.1.

MR. STREIBEL: 245.1 during the winter periods. That would be the maximum. There it is right there. Okay. Minimum really would be determined by the amount of water coming in through the various sources into Lake Ontario so obviously the minimum could go down. If the water's not there, you can't raise it. This is one variable I'm talking about here, this variable right here.

That's only the coastal. And that indicates the areas at which once you go above those areas the erosions accelerate. Erosion takes place underneath the water. I mean, the sand, could be on a sandy bottom that's moving underneath the water. So it's not just when it goes up high when it's visible to you, but also underneath the water. But this, according to all the data, and they've got wave information, they've got wind direction, they've captured all of this information which resulted in this particular, this particular curve. The one thing that coastal has -- that knows, that coastal knows, is that the winter months are the most significant months for erosion due to the force of the wave action. It's the worst during the winter months.

And that's one of the reasons that, you know, one of the reasons why we like to see the lake lowered during the winter months. But the second reason is, so as someone asked earlier tonight, when we get down into the spring session, the April time frame, that time frame, that enough water will have been let out of the system so that we're not, if we're hit by a northeastern type of storm during those months, which we occasionally get, that we're not, you know, the damage is minimized. So I think this curve, this is what their recommendation is, and this is not a final thing, by any means. And I think no one should walk away tonight looking at these criteria and saying, this is what it's going to be. We don't know exactly what it's going to be. And next year hopefully will be a, you know, something that will be addressing that.

MARK KNOLLS: And for the record, my name is Mark Knolls. I live in Youngstown. I'm a riparian and I don't trust the IJC either, but it sounds to me like you fellows are very responsive. And I thank you very much for being here tonight.

MR. STREIBEL: Well, when I started in this business back in 1972 as an interested person in lake levels, because of that storm in '72, I had the same feelings. And I had the same feelings until I joined this project. But this project has been one of the most open projects that I've been affiliated with either in the private world, if you will, or in the public sector like this project is.

MR. KNOLLS: Thank you.

MR. STREIBEL: Thank you, sir. Anybody else have any questions? There's one person in the back there.

MR. WITKOWSKI: My name is Jim Witkowski, W-I-T-K-O-W-S-K-I. I'd like to apologize to Peter if I offended him with my first question. I certainly did not mean to question your integrity. I just wanted to know who was paying him. Is this the same study that is studying the infrastructure of channel dredging and winter navigation?

MR. STREIBEL: No.

MR. WITKOWSKI: This has nothing to do with that study whatsoever?

MR. BARLETTA: There's like four or five different studies going on at the same time on this basis.

MR. WITKOWSKI: Okay. Thank you very much.

MR. STREIBEL: Thank you. Ma'am.

MS. GOW: My name is April Gow. I'm from the Town of Somerset. Gow is spelled G-O-W. I have a question on the slide that showed the with control and the without control. It probably doesn't seem very scientific of me to question that, but it seems to me that if you have a rain gutter on your house and the water flows out of the rain gutter, if you put a dam in the rain gutter, it's going to hold back some of the water. Now, when you put that -- when you remove that dam, it doesn't suck the water out any faster, so when you open the gates of the dam, it isn't sucking down the water level any faster than if you had no dam. So I don't understand that slide. And then I have more comments.

MR. BARLETTA: You've got to remember, we're upstream from the dam, okay. And I understand your gutter is basically at a very low slant. When you want to lower Lake Ontario which is your gutter, you've got the dam in there, okay?

MS. GOW: Uh-huh.

MR. BARLETTA: The dam is actually here, okay? You want to shove water out. To do that you have to lower your -- if you tilted your gutter at an angle, you're going to actually decrease the amount of water level. What's happening in the river, is the dam is acting as a plug as you said, okay?

MS. GOW: Right.

MR. BARLETTA: Okay, we want to let water out. But the river flows downstream, down hill. To get the water to flow out of Lake Ontario, to lower Lake Ontario you have to lower that

angle even more. So, the dam, behind the dam, they have to lower the water level twelve inches to get that water from Lake Ontario to flow down to that dam.

MS. GOW: But if you had no dam at all, it would be flowing constantly.

MR. BARLETTA: No, it wouldn't because you've got that, remember the slide that showed with the cross section of the river, Galue Island, the way they cut that chunk off. That's a natural dam.

MR. GOW: So how many feet of Galue Island were removed?

MR. BARLETTA: They took it down I think about 15 feet, somewhere around there.

MR. CUTHBERT: To use your analogy, they made a bigger gutter. They made a bigger outflow pipe.

MS. GOW: It's mathematically larger?

MR. BARLETTA: Yes, hydraulically.

MS. GOW: Okay. Let me just conclude with my comments. This isn't something that you created, I know you're having to deal with the effects and the disgruntlement and all the different elements. And the whole focus of the meeting ignores the elephant in the room that there's too many dependencies on control levels now. And you have been given an unattainable goal of doing no harm to all these factors, but it just seems to me that by creating artificial controls, we've created a dependence on artificial conditions in recreational boating, in fishing and the land owners. Montreal used to cope with flood conditions seasonally.

Recreational boating used to cope with high and dry marina's periodically. Ottawa used to cope with their own flood waters. Land owners had to cope with how much land they had or lost. Fish spawned, or didn't spawn, depending on what was natural. Native varieties were here -- there were more native varieties before we dredged and allowed more commercial shipping because commercial shipping brought in non-native species that competed with the native species.

If you had an open river, it would seek its own level. We wouldn't have all this artificial impact on all factions and we wouldn't be having to cope with all the factions. I think the other Great Lakes are smart. They don't allow control devices because they're not creating a monster. Canada is going to want higher levels because they want the power, they want the commercial shipping, and their north shore marina's want higher water levels because it's the south shore that gets the wind driven higher levels. So it's kind of an international disaster.

MR. STREIBEL: It's a tough nut we're dealing with.

MR. McKENNA: And that's what I was going to end with was, we don't know if we can please everybody, we probably can't please everybody. And, I mean when they put the dam in they put it in for a lot of reasons. They did want hydroelectricity, they did want better shipping, and they thought they were going to have better control. It looks like they do, but that doesn't mean they don't have the problems to go with that control, too.

So we're hoping we get a better regulation plan than we have now. We can't go back to before they had the dam. So what we have to do is try to get the best thing we can now. And you're right, now we're adding interests. We're making it more complicated. We're adding the lower river as well as the lake. This is going to be quite an undertaking. But I have to tell you, the scientists, I think are pretty confident that we're going to have a better regulation plan, and if we don't, the IJC is not going to allow it to go into play. We'll have to stay where we are.

MR. STREIBEL: I think this is important, you know, you folks here tonight, the folks that were in Rochester yesterday, the folks that were in Sodus the day before, Oswego, Montreal and other points. The inputs that you're providing, okay, you got people sitting here that are going to be working on these various issues, and some of those are going to be making decisions. So any input you've provided tonight is very useful information for the study.

MR. BARLETTA: Can I talk about another point. Just so you're not focusing on -- just for the benefit of Doug over here, our Canadian friend. The hydropower, commercial navigation, it's just not Canada.

That dam is U.S.-Canadian owned. Half of it is U.S., half of it is Canadian. And we both share in that power. Commercial navigation, I actually learned something last night from Roger, who's commercial navigation. Commercial navigation is not only for the shipping from like Burlington, they take steel out obviously; but they bring iron ore in to not only Burlington but also down to Toledo for steel plants down there.

They take grain from Lake Superior and that's shipped out to -- that's our grain from our Midwest, it's shipped to Europe. So it's not just Canada. I mean, you don't want to blame Canada. This is a joint problem.

MS. GOW: And it's good to require a joint solution.

MR. BARLETTA: Right.

MS. GOW: But I just hope that there is more recognition of the landowners on the south shore.

MR. BARLETTA: That's why we're here.

MS. GOW: And I appreciate your efforts. Thank you.

MR. STREIBEL: Thank you. Anybody else? If not, I'll put it back to Tony.

MR. McKENNA: Thanks for coming. We'd like to make sure that you if you didn't sign in, please do. Because that way we'll keep in touch with you because we'll send you stuff. And if you meet any of your friends or neighbors, have them get in touch with us so we can do that also. And thanks for all who came.

(Meeting concluded)