Transcripts

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

In the Matter of:

INTERNATIONAL LAKE ONTARIO/
ST. LAWRENCE RIVER STUDY

July 14, 2005

Transcript of Public Meeting held in the above matter at Captain's Steak and Seafood, 27 East 1st Street, Oswego, New York on July 14, 2005 at 7:00 p.m., pursuant to Notice.

PRESENT:

SCOTT TRIPOLI - Chairperson

PAUL SANTORE - Oswego County Legislature

TONY EBERHARDT - Study Manager

IRENE BROOKS - USIJC Commissioner

RUSS TROWBRIDGE - IJC Liaison to the Study

JON MONTAN - PIAG Member

EUGENE STAKHIV - U. S. Co-director - Powerpoint presentation

ANDRE CARPENTIER - Study Board member

ARLEEN KREUSCH - Public Relations

AARON SMITH - Public Relations Assistant

TRANSCRIPTION SERVICE:

Associated Reporting Service
Post Office Box 674
229 West Genesee Street
Buffalo, New York 14201-0674
(716) 885-2081

Proceedings recorded by electronic sound recording, transcript produced by transcription service.

INDEX OF SPEAKERS

PROCEEDINGS

MR. TRIPOLI: I'd like to get started if we can. Everybody ready. I'd like to welcome you to the Lake Ontario St. Lawrence River study meeting that we're about to embark on, and first I'd like to introduce Paul Santore from the Oswego County legislature to kick off the meeting. Hi, Paul. Up front would be great.

MR. SANTORE: Thank you. We are affected by both the lake level and, of course, the river, depending on where you look. We're a little upstream from the river but we certainly are important to the whole system of water levels here. Oswego is very dependent upon water for commerce, for recreation and for our Harborfest which we will be having in about two weeks. Can't miss plugging that. So welcome to you all and hopefully we'll have a very good and exciting meeting tonight.

MR. TRIPOLI: My name is Scott Tripoli. I'm with the Public Interest Advisory Group and we've been embarked on this study for about four years now. I do not work for any of the entities involved in this study. I'm strictly a volunteer and my purpose is to be a liaison between the public and the Study Board to bring your comments forth and to interpret any of the technical information and get you answers to any of your questions. So don't ever hesitate to contact me or any of the other Public Interest Advisory Group members. With us here today are members of the Study Board. If they could stand up perhaps and introduce themselves. They will participate in answering a lot of the questions at the end of the presentation.

MR. CARPENTIER: I'm Andre Carpentier, Study Board Member.

MR. BROWN: I'm Jon Brown. I'm on the recreational boating technical group.

(Study Board Member's introductions)

MR. TRIPOLI: Tonight the study team is here for the last time to talk with you about the results of the study and the candidate plans that are being put forth to the International Joint Commission.

The format for the evening is that there will be about a 30 minute Power Point presentation given by Gene, and Gene is one of the U.S. co-chairs of the Study Board on the U.S. side. I said U.S. twice. Then after that the meeting will be turned over to Dan Barletta, the lead U.S. Public Interest Advisory Group member and also a member of the Study Board.

So, with that, we'll get started with the Power Point presentation.

MR. STAKHIV: We didn't test the microphone yet, did we? Is it working? Okay.

Thanks, Scott. Welcome, Mr. Santore. We're at this precarious tipping point where fortunately we have enough people in the audience so that you outnumber the study team. In previous meetings that we've had, we've had over 130 people, fairly local people. So I'm glad that you were able to make it through the storm.

One of the things I always do is I like to thank the Public Interest Advisory Group for their hard work that they've done over the past five years. They're hosting this meeting and they've been hosting all of the meetings along the shoreline on both sides of the border, and they really, they've done a terrific job. They've been involved throughout the entire five year period of our study, have organized, conducted hundreds of meetings and it's mainly because of their sort of dedication without pay, citizen volunteers in the true spirit of what I consider to be the best of democracy here in the United States. Thank you, gentlemen.

Okay. I've got a half an hour. I could stretch it out to an hour if you want. I could talk more slowly. I could talk faster, maybe do it in 20 minutes. I'll tell you about who the study is, you know, who we are, why did we undertake the study. We'll present some of the findings of the study and convey the way the system is being operated today, some of the facts about the system. We'll look at some of the new candidate regulation plans.

What happens after this meeting, the process implementation, the kinds of things that we expect from you both at this meeting and at all of the meetings that we're holding, the feedback that we hope to get from you to help refine the plans. And then we'll have a question and answer period after this that will be facilitated by Dan Barletta, the co-chair, U.S. co-chair. You have the standard organizational chart which crams a lot of information.

We're now in the final year of a five year $20 million study. We've had over 120 people, technical specialists involved in the study team. The International Joint Commission which is at the top of the pyramid, the people that we're actually advising on this study, mandates that all of its boards and studies must have equal representation from both countries. So there's a counterpart for every one of us on both sides of the border.

The Study Board is an independent advisory body, as is the Public Interest Advisory Group. In other words, we don't work for them. And this is really unique, in sort of thinking about my career of doing studies, this is an independent group of people. And of course, we get lots of independent ideas as a consequence.

Technical experts have been engaged from various Federal agencies, provincial state agencies, academia and the private sector in both countries.

Five years ago the federal governments of Canada and the United States requested and funded the IJC to review their orders of approval for regulation of water levels and flows in Lake Ontario and the St. Lawrence River System. This action was in response to public concern that the 40 year old regulation plan for directing and managing water outflows through the St. Lawrence control dams was out of date and wasn't responsive to current and future uses of the system.

The IJC is a binational organization created under the Boundary Waters Treaty of 1909 for the purpose of preventing and resolving disputes related to our shared inland waters from coast to coast. So it's not just Lake Ontario. They do the Columbia River basin, the Red River basin, St. Croix River basin, every basin that crosses the U.S. border. And there are many studies underway as a consequence.

This study is the vehicle by which the IJC is undertaking this work. The final decision on changing the regulation plan and criteria rests with the Commission in consultation with stakeholders and governments. So we're just presenting them a set of options and alternatives to consider. I'm going to talk about the current regulation plan, what we call -- well, Plan 1958-D.

The outflows of Moses Saunders -- the outflows through the Moses Saunders Dam at Cornwall and Messina, are currently regulated using a set of written rules for releases that's called Plan 58-D. Although it takes into account the interests of water uses, commercial navigation and hydroelectric power, this plan doesn't consider the needs of the environment, recreational boating and shoreline erosion. Plan 58-D was based on the kind of water supplies we got in the first half of the 20th century when the plan was designed, basically in 1958 or so; and was not well designed to handle the extreme dry period of the mid 1960's that followed and the wet period of the 1970's.

The plan is implemented by the International St. Lawrence River Board of Control that is also appointed by the IJC. In other words, the weekly decisions for releases and outflows are made by the Board of Control, not by us.

The operation of 58-D with deviations, let's call that 58-DD; has been able to accommodate the needs of shoreline property owners as well as hydroelectric power and commercial navigation interests despite significant increases in natural water supply to the lake in the last few decades. Operators have tuned the system to reduce extreme water levels -- water level conditions by deviating as necessary from Plan 1958-D as implemented in 1963. That's when it was put into effect.

But without detailed data on the environment, operators can't address the environmental issues in the same way. Recreational boating is also a recent and growing interest that has specific needs that Plan 58-DD does not meet.

Now, over the past five years, we've spent a lot of time talking to people like you in groups just like this, smaller groups, larger groups. We consulted a wide array of people, including many of you who have provided us with preferred water levels from the perspectives of the interests and groups listed on the slides.

We've been able to translate these needs and wants into specific and measurable indicators for each aspect of the system. And the PIAG, the Public Interest Advisory Group has been instrumental in guiding this public involvement process for the Study Board.

Let's go to the findings of the study. First, let me describe a little bit of the system. I'm sure all of you know it, but just in case. During many of the slides we'll refer to the upper river, which is above the Moses Saunders Dam and the lower river, which is below the dam. And so we've divided the system basically into those three segments, Lake Ontario, the upper river, the lower river, and we've done the impact analysis for those segments because they're significantly different.

We found that Lake Ontario, the St. Lawrence River and the many interests affected by water levels and flows represent a complex water management system. The dam at Messina is just one factor in managing and dealing with water levels and flows. Nature and changing water supplies to the region is the much more unpredictable factor.

For example, this is a plot of total water supplies to Lake Ontario over 140 years, from 1860 to 2000. You could see there's considerable variation in these water supplies. So that's the total water supply in a given year, flowing into the system, in terms of cubic meters per second. That's the scale on the left-hand side.

Also, trends of very dry water supply years occur as in the 1930's and 1960's. And higher water supply trends were also experienced in the 1970's through the end of the 20th century.

The current regulation plan, 1958-D, which was implemented in 1963, that's that red bar, the vertical bar running through it, was designed based on water supply conditions up to 1960 and was not designed to deal with the extreme low water supply conditions of the 1960's that followed immediately and the high water supply that occurred in the 1970's. And you could see those big spikes. And you could also see that, in general, in the last 40 years we've had much higher average water supplies flowing into the lake.

It could be a consequence of climate variation. We've seen these long-term cycles in many lakes across the temperate zone. We've done studies looking at them in Siberia, in Europe and in North America. So it's not unique to Lake Ontario.

Here's another example of the complexity of the system, showing what happens when attempts at changing water levels are made through operations of the Moses Saunders Dam at Cornwall and Messina.

During wet periods and rising water levels on Lake Ontario consideration could be given to letting more water out of Lake Ontario to lower water levels on the lake and reduce the potential for shoreline, flood, and erosion problems.

Similarly, during dry periods in the summer, the same action could be considered to help ships that are having low water level problems in Montreal harbor. So if Lake Ontario outflow is increased for one week so that Lake Ontario is reduced by two centimeters, that's three-quarters of an inch, you can see that the water level changes in Lake St. Lawrence upstream of Moses Saunders Dam are magnified to a drop of 30, 30 centimeters or 11.8 inches, almost 10 times -- more than 10 times. And on Lake St. Louis, just upstream of Montreal, the levels are elevated by 23 centimeters.

So a two centimeter reduction causes those extreme variations in the rest of the segments of the river. And that's part of the problem that we have in dealing with these releases.

During the study we carefully examined the effects of fluctuating water levels throughout Lake Ontario and St. Lawrence River on the ecosystem, on recreational boating and tourism, as indicated on this slide, including all of the other purposes and uses that were originally prescribed in the orders of approval Plan 1958-D. Commercial navigation, water intakes and outfalls, hydroelectric power production.

We believe that this has been the most sophisticated and comprehensive research ever done on all of these needs and the issue of lake level regulation management. It's been reviewed by outside scientific and economic experts and it's currently subject to an independent peer review by the National Academy of Sciences and the Royal Society of Canada. As we speak, they're meeting in Washington, DC.

In the studies of the natural environment and ecosystem, over 400 -- actually we did over 500 environmental indicators, developed, examined and researched. Thirty-two were identified as being especially sensitive to water level variations, including some species at risk. Further details about these environmental indicators are in your handout. You'll see all those nice little columns with yellow in it. That's -- one of those tables is on the 32 environmental indicators. So if you look in, you'll see the charts.

A general conclusion is that a more natural variation in water levels is better for the environment on Lake Ontario and the upper river, but not necessarily different for the lower river because again, it's a different dynamic environment.

In the recreational boating and related tourism sector -- Arlene, you're keeping up with me, thanks -- we found quite expectedly that water level problems are greatest at low water levels, fewest at average to higher levels, and increase again in extreme high level conditions, what you would expect, what you know. But we've quantified those relationships for every segment of the river.

Because of the location of marinas in shallow waters, recreational boaters need higher water level conditions than commercial ships that operate in the main channels.

Economic impacts have been identified for each part of the system and reviewed and approved by outside experts. And when I drove here from Sacket's Harbor to Oswego I visited many of those marinas. Many of them are in these little shallow embayments, and obviously very sensitive, susceptible to water level fluctuations.

The current regulation plan and Control Board deviations, 1958-DD, have significantly reduced flooding on Lake Ontario and the St. Lawrence River shorelines. 1958-DD is effective in slowing shoreline erosion, but we need to stress that no regulation plan can eliminate shoreline damage and shoreline erosion. It's a natural process. No matter what we do short of lowering lake levels by 10 feet, shorelines will continue to erode. Shoreline erosion is worse during fall, winter and spring because of storm events. High water levels during calmer, summer weather are not as damaging.

Our investigation of fluctuating water level impacts on commercial shipping have identified that navigation costs naturally go up when ships don't have enough water to make their journey up the St. Lawrence Seaway and are delayed by high currents and other lesser factors. It's difficult in the current management system to keep enough water in Montreal harbor for ships during the fall and extended dry periods. And that's one of the dilemmas we face in developing a plan.

We examined the sensitivity of municipal, industrial and domestic water intakes and outfalls to varying water levels, and found that municipalities have adapted to expected water patterns but individual shoreline water users tend not to adapt to extremes and are vulnerable to very high and low water level conditions.

The hydro power sector, consisting of the hydro power plants at Cornwall and Messina and Beauharnois represent a huge piece of the water puzzle. Small changes in water flow and level regimes can result in differences of millions of dollars of revenue to this sector. Again, I think so far what I've recounted of the existing system is almost sort of self-evident and you know a lot of it.

Let's get to the heart of the new plans and presentation. We developed a bunch of new regulation plans in which we tried to consider all of the interests in the system in a fair and balanced manner, that is, reflecting all of the inputs of all of the previous meetings that we had during the course of the last four years.

The first thing we did was, as a Study Board -- well, it wasn't the first thing, but the Study Board struggled long and hard to develop a set of guidelines that guided the formulation of our plans, took into account the input from the public and served as the basis for evaluating these plans. And let me define some of these terms that you're seeing. "Contributes to ecological integrity", means that the Study Board would look at how well the plan performs against the environmental indicators that you have in your handout.

"Maximize net benefits", means that the Study Board will look at both the economic and ecological performance of each of the candidate plans.

"No disproportionate loss", means that no interest or region will be seriously harmed. Those three that I just read are the key guidelines that the Board used in evaluating the plans. The Board also considered how flexible the plan would be to unusual events and climate change so that we're not just looking at the 101 year historical record that we have but also looking at statistical combinations of future possible changes in the hydrology and the flow regimes.

We've insured that our work has been transparent to the public and representative of all the interests through the involvement of our Public Interest Advisory Group, through our public meetings, through our website and the newsletters. And you have copies of those here on the side.

Throughout the study the Board assured that decision processes were open to the public and representative of all of the interests.

We looked at lots of plans, many permutations of the plans that you see there. So one could say that we looked at hundreds of plans. But fundamentally we developed a set of reference plans and interest specific plans.

One, the official plan that's on the paper, Plan 1958-D. The second plan, we tried to recreate 58-D with deviations because these deviations are ad hoc. They're done week to week by the Control Board. So we had to recreate a set of rules that represented those ad hoc decisions. And that's the plan that we call the current operational plan, 58-D with deviations.

We also looked at previous plans that were developed in previous studies prior to this one. Plan 1998 was the most -- was considered the best of those plans. We developed an Ontario Riparian Plan that, specifically for protecting shoreline interests along Lake Ontario, and of course -- well, you see the data in front of you. It results in severe environmental damage and recreational boating, negative recreational boating impacts.

The recreational boating plan was done with the same kinds of ideas in mind. Let's create a plan for the recreational boating interests. What would it do to all of the other interests and sectors. And it improved recreational boating but it had severe impacts for the environment, downstream flooding, and the Seaway.

We also, because we're interested in the environment just as anyone else, and we had a fairly large environmental technical working group, we designed what's called a natural flow plan. That's the closest thing that you can get to pre-project conditions.

And, but to implement this plan would result in significant economic losses to shoreline property and recreational boating interests. Although this plan is considered by some as the ultimate longer term management goal for the system, the Board believes that it cannot, at this time, be considered as a candidate plan for implementation. But it's there. We developed the data. It will appear, all of this information will appear in our report to the Commission. It's just that we're not recommending it as a candidate plan. This just gives you an example of the kinds of information that we developed, coming and getting the input from the public, transferring your needs and issues into concrete, quantitative measures and criteria. These target water levels show that different interests want different water levels at different times of the year. The plan formulators are trying to meet as many of these targets as possible, but as you can see, there are conflicts. And it's difficult to keep everyone happy all of the time.

On the previous slide you saw the target levels for this are, for this particular area. There are similar target levels identified for locations all along the system. All of these triangles, dots and squares, we have criteria for all of those points, both on Lake Ontario and along the river system.

So, here's the punch line, almost. The result of all of this work, debate and public input is three candidate regulation plans that I'll summarize for you tonight and on which we'd like your views and comments.

More than 10 plans were formulated, reflecting various inputs from the public and technical participants. These plans were considered and evaluated by the Board and some were discarded. Actually many were discarded and reformulated.

These three plans remain as the best and the most representative of the plans that were developed. All of the plans were designed to provide overall benefits to the economy and environment with minimal harm to any sector. But they differ in the distribution of benefits among the different interests, and how much loss a sector would bear.

In the following slides I'll give you an overview of these plans.

We've come up with the new plans that all have improvements over 1958-D with deviations, but we still haven't found that perfect golden plan that makes everyone happy all of the time. And it's unlikely that it will ever happen. Sort of like searching for the Holy Grail. Our

plan formulators are still working and searching for the Holy Grail to design the best plans they can, recognizing there will always be trade-offs.

The first of these three plans that we will be recommending to the Board, to the Commission, is the, what we call the balanced economics plan. It's designed to maximize overall economic benefits. It provides some improvement for the environment, especially on the upper St. Lawrence River, has losses to shoreline interests on Lake Ontario and the river, and provides recreational boating benefits. The details of those benefits and costs are in the handouts that we've given you.

Plan B is the balanced environmental plan. It's designed to simulate more natural conditions and provide overall economic benefits. It improves the environment on the lake and the upper river. It has losses to shoreline interests with significant flooding potential around Montreal, and it has losses to recreational boating, especially on the lake.

Plan D, the blended benefits plan, these plans all sound like, those of you who dabble in mutual funds, like mutual funds packages -- I'm deviating from the script, Arlene -- designed for balanced performance with overall economic benefits and minimizes losses. Little change from 1958-D with deviations for the environment. No overall losses for shoreline interests, but some flooding potential, minor flooding potential. And it provides recreational boating benefits.

So, how do the plans compare? Of course, again I refer you to the handouts that you have. But we spent the winter and spring months this year, the Board and the study team have evaluated these three candidate plans from economic, environmental and equity perspectives, both in quantitative and qualitative terms. And we spent a lot of time debating and arguing to come to this final set of plans.

And what we've done in the summary of plan results is we've simplified the charts that you have in front of you. I don't know, it's really an over-simplification, but let me just draw your attention to the environmental index. That's the first row across. The environmental index is a ratio where one is the same as 1958-D with deviations. In other words, we're comparing all of these plans to the current operating system, so one is the present system. Anything above one is better. Anything below is worse.

The rest of the interests, from the shoreline owners to hydroelectric power are shown in millions of dollars of average annual benefits. We can see that plans A and B both result in losses to shoreline property, more so in Plan B which concentrates on the environment.

For example, you could see that in the red numbers in particular, Plan A has losses of 1.1 million per year, and Plan B has losses of minus 2.88 million.

Plan B has relatively small losses in recreational boating of .87 million per year. But Plan D does not significantly improve conditions for the natural ecosystem, even though, as you can see, it's all in the black, with small, small improvements in shoreline property and almost a negligible improvement in the environment.

To evaluate all of these plans, we simulated the water level and flow conditions that they would produce if we were to receive the same water supply and weather conditions as occurred from 1900 to 2000. So we're just replicating the historical record, imagining that it

could happen all over again. But we've also done many other series of possible hydrologic conditions in the future.

We could show many tables of data, graphs probably three orders of magnitude more. In other words, close to 3000 of these tables. But we don't want to bore you. I know you want to go out and watch television later on. I want to have some beer. So we won't subject you to number and data crunching here.

But, got to show you a few of these slides. This slide and the next two slides show an estimate of the water levels that would occur under each of the plans for comparison.

This plot shows the average of levels for Lake Ontario throughout the year. In this comparison, plan A has higher average levels throughout the year. Plan A is in red. You could clearly see it has average levels higher.

Plan B has about the same levels in the summer but higher levels in the fall, winter and spring.

Plan D for the most part has the lower average levels than the base case Plan 1958-DD, which is in black, but higher summer and later peak level. You could also see that the difference from the average winter low to the summer high is less with Plan B and more with Plan D. These average levels explain in part the economic and environmental results of the plans.

The higher average levels of Plan s A and B in the stormier fall and winter months are reflected in increased erosion damages on the lake, but average levels don't tell the whole story.

This is a plot of the highest Lake Ontario levels that occurred in the 101 year simulation. The plot shows that the maximum level in each of the plans would be higher in the spring than Plan 1958-D with deviations. The highest peaks are all slightly higher than 1958-DD and occur at different times. In the fall and winter the maximum level would be a bit higher with Plan s A and B but lower with Plan D. Let me just point to this, okay. So here's Plan D and here are the lower peaks in the winter months.

Since the peak levels of the candidate plans are just about the same as the base case, there is little or no increase in flood damage in the plans. Plan A causes a bit more flood damage because the higher peak levels occur in the stormier spring season.

This plot shows the lowest levels for Lake Ontario that occurred in the 101 year simulation. All of the plans generally have higher minimum levels than Plan 1958-D with deviations. Plan A consistently has the highest minimum levels throughout the year.

Let's turn to some of these environmental indicators and again, we're just giving you little snapshots, sort of like an impressionistic painting. You'd have to see the whole thing, working with us and looking at the 3000 slides, and then you get all fuzzy in the head, like we do on occasion.

The environmental technical working group identified a number of environmental indicators that together tell the whole story, tell the story of the health of the environment. These individual indicators represent important information about habitats and life cycles that are

affected by water levels. They've looked at fish, mammals, birds, reptiles and amphibians, some of which are species at risk. This slide highlights two of those indicators on the lake and upper river. These two examples are how we compare the plans for their environmental impact.

For Lake Ontario Meadowmarsh, for Lake Ontario Meadowmarsh, the left bars, Plan B's index of 1.43 means that Plan B performs about 43% better in relative terms for this type of habitat than plan 58DD. In other words, it produced 43% more acres of habitat. So you could see that Plan A, B and D all produce more Meadowmarsh. And the upper river northern pike young of the year productivity is three times as big for Plan A than it is for Plan B, which is a curious result because Plan B is designed to be the environmental. But we see many of these kinds of changes in the plans.

When comparing the plans -- now let's look at some of these species at risk, sensitive environmental performance indicators. When comparing the plans for black tern reproductive index on the river below Montreal, Plan D, on the other hand, has the only positive index of 1.03, which is not considered a statistically significant improvement. But compared to Plan s A and B which have large negative indices, Plan D would be better for this performance indicators. In contrast, for the muskrats Plan A would be better, even though all of them do poorly for the muskrat houses.

Let's shift over to the economic impacts and there are hundreds of ways we could show you economic impacts, and I'll go through two or three of them. This looks at -- remember this looks at the overall regional economic impacts, and we've divided it into Lake Ontario, the upper river, the lower river, hydropower and the Seaway. This slide shows the economic impacts of the three plan options, for shoreline, recreational boating and water use interests over the regions considered. Lake Ontario is shown by the blue bar. On the upper river shown by the maroon bar. And on the lower river shown by the yellow bar. Compared to 58-DD which has the zero or no change point. So everything is compared to 58-D here. So anything above here is a benefit. Anything below this line is a loss.

Note the values are in average annual millions of dollars, U.S. dollars.

As shown, Plan A, the balanced economic plan, would result in average annual economic benefits to interests on the upper and lower river, and slight net losses on Lake Ontario. This is this very slight net loss, the width of the bar.

Plan B, the balanced environmental plan, would result in average economic losses in all regions. However, hydropower and the Seaway would see positive net economic benefits. So Plan B has losses in all of these regions, Lake Ontario, upper river, lower river, but there are benefits in hydropower and navigation.

Plan D, the blended benefits plan, would result in positive economic benefits for all interests and all regions, although the benefits in the upper river would be small. And that's exactly, this is sort of the basis of how we designed these plans. And it's true to the overall objectives and designs of the plan to be, reflect different interests and different emphases on interests.

Here's another way of showing key economic impacts. This slide shows the -- in a different cut of detail. Plan A shows average annual benefits to recreational boating, navigation and hydro interests and losses to shoreline interests resulting in a total net benefit of

$9.25 million dollars average annual. So you see 10.25 here. What we've taken is this number, which is 10.25 and subtracted small losses in coastal for a net of 9.25 million.

Plan B shows benefits to navigation and hydro interests with losses to rec boating and shoreline interests, resulting in a total net benefit of $4.32 million dollars. Although the shoreline benefit is small, Plan D shows benefits to all interests, resulting in a total net benefit of about $5 million dollars annually.

Let's just focus on the shoreline interests. And again, we've subdivided, you could see the shoreline impacts, lower river flooding, upper river flooding, Lake Ontario. Lower river erosion and so -- and so forth. Different colors.

You could see that Plan A has a small, a relatively small net loss of minus $1 million dollars. Plan B almost reaches $3 million dollars, whereas Plan D has a slight net benefit of .13 million.

So on that slide you saw the distribution of the impacts, how much they were in each segment of the river. Similar, a similar slide for recreational boating impacts. You could see the distribution of benefits and costs just focusing on the recreational boating sector. Plan A does very nicely, 3.18 million dollars. Plan B doesn't do that well. Minus .87. Plan D does fairly well at almost 2 million dollars, with only a small loss, and we're working on that because we think there's an error in the calculations, small loss in the Ogdensburg area.

Let's move to the regional environmental impacts. This slide shows a plot of the environmental index used to evaluate plan performance. Remember, a value of one represents the status quo condition, Plan 1958-D. So values higher than one, and this is a difficult graph to read because here's one, right over here, not here. Anything higher than one is better. So this is better, this is better, this is slightly worse. This is significantly worse. Better, better, worse. For each section of the river. It seems that the lower river, the net result here is -- in all of the plans, the lower river is a difficult place to get environmental improvements. We've been trying very hard to do that, but again, it's a different dynamic riverine environment.

Okay. So what happens now. We've had and we're still undertaking a series of these public consultations. We still have another couple of weeks of these along the south shore of Lake Ontario through June and July. We've had many briefings with public officials and agencies on both sides of the border, New York State, Province of Ontario, Province of Quebec, and governments, and as well as congressmen, and legislators. After these series of meetings we have a closing date for public comments of August the 5th. The study team will make the final modifications to the candidate plans based on the feedback from the public meetings. And the Board and Public Interest Advisory Group will discuss the study results with the International Joint Commission in the fall and complete the final report for public release by December the 31st, 2005. We expect that the International Joint Commission will consider the study results over the winter and hold public hearings and government consultations in 2006. Then the decision on the selection of the new plan and the implementation of that plan will be made by the IJC in consultation with the governments. So I'm finished with my presentation. Thank you. And I'm handing over the meeting to Dan Barletta, the co-chair of PIAG to facilitate the question and answer period. Thank you.

MR. BARLETTA: Thanks, Gene. Hopefully you can hear me. Before we get to the question and answer part of the evening, I would like to emphasize a few things. We, us members of the PIAG, the Study Board and the IJC, we want to hear your views tonight on these

candidate regulation plans. In your folder there is a survey, a survey postcard. We would appreciate you filling out the survey and giving it to us tonight or you can mail it to us. But it's important. We want to insure that your views are conveyed to the Commission. Tonight we are recording your questions and comments so that we can make sure that they are taken into account as the final decisions are made.

There's microphones on either side of the room. There might be a portable one around here, too. Please use the microphones. Please state your name and where you are from. And I'd ask both the people asking the questions and those answering them to be as concise as possible. That way we can have time for more people to ask their questions. And if you have a question that's very similar to one -- you're planning to ask one very similar to the one just being asked, please wait for a little while and give another person a chance to ask their questions and then we'll have time later at the end if you want to come up with a different version of the same question. And if for some reason your question cannot be answered tonight we'll try our best to get you an answer and either get back to you either by mail, email, phone, or we'll try and get you an answer if we can't answer it. So who wants to be the first questioner? Mr. Quick, I know you've got a question. Where is he? No questions? Can you go to the microphone so we can get this recorded.

MR. DRESWICK: Yes. My name is Walter Dreswick. I live in Syracuse, New York. I got property over at Noonan Beach over at Sterling, and we have severe shoreline erosion over there. Now, is -- Bill, my neighbor, he suffered greatly. A lot of camps are on the verge of falling in because of high water levels. What are you going to do about it? What I see -- this is my first meeting but what I've heard from you guys is, basically the higher water is going to be subsidizing marinas, freighter boats, the larger boats, commerce and other things. What about a consideration of us people who are losing shoreline? You know, this is property, this is big dollars. You know, we pay taxes for this. We pay for the roads, the inner structures for these boaters and everybody else to use them to get to them, and you know, we're suffering severe losses here. And what I see is that, you know, they're being, basically the higher water is subsidizing these businesses. A marina can always dredge. You said yourself one of you guys that you visited all the marinas. Below the water they can dredge. Business is a business. They're operating for profit. Us as shoreline owners, we're not operating for profit. This is our property we're losing. We're losing losses. So what would the government do to help us with the erosion, maybe with grasses, rip-rap. It is Noonan beach is a beach. Why don't you put something out there to stop the waves from doing all this damage? And I think that's about, I said everything that's on my mind.

(Applause)

MR. STAKHIV: Let me begin that, let me begin the answer, and I think we have other specialists here. One is, any plan that we have, we put in place, will still result in erosion. It's a natural process. All -- the difference in the plans, the difference in the plans merely change the rate of erosion, the rate of recession of your land.

THE FLOOR: You're the ones that have raised the water.

MR. STAKHIV: The second -- hold on. Let me finish the answer. The second thing is that lake level regulation in and of itself is not going to solve your problem. You mention that there are other mitigation effects of putting in rip-rap, building up dunes, beaches, et cetera. So there are, there are physical measures that can be taken that could alleviate some of the lake level, lake level variation problems that cause erosion. That's a separate

issue. There are other agencies that do that. Our only sort of mandate is to look at reducing, reducing your problems through lake level regulation.

Thirdly, there are plans there that we've shown and demonstrated that will reduce your rate of erosion. There are net benefits. Three of those plans are positive for your problem.

MR. DRESWICK: Well, what I'm getting at is due to high waters in a storm he had seven foot waves pounding on his land, seven foot waves, you know, and how long did they last. They were for almost two weeks out there, and it did severe damage along the shoreline.

THE FLOOR: What seawall? Who?

MR. STAKHIV: But most of, you know, again, you live there so you know the data. All I see is the statistics, the types of storms. Most of these --

THE FLOOR: They're not lowering the water.

MR. STAKHIV: Most of these events occur during the fall, winter and spring months. Those plans were designed to reduce lake levels lower than below Plan 58-DD during the most critical stormy periods. So even though the lake levels are higher in the summer, that's not when the major erosive processes occur and the major storms occur.

MR. DRESWICK: Well, actually, that's when the major damage has been happening out there, when these high waves come in from the higher water, and it just takes away the shore. And I know you got normal process of erosion, the rain hits and you got groundwater with the rain. I understand all that, but maybe you should think about more implementing programs to help shoreline erosion, whether it be grasses, bushes, shrubs, take into consideration the water levels. Because when you got the high waves breaking, this is what's doing a lot of damage out there. I mean erosion's out there, they've lost probably in the last 40 years probably about 200 yards. I mean, it used to be land. Now it's gone. Camps are gone, road's gone. Now it just keeps encroaching in. So what I think is that you should take a look at the impact on the people who are there, not just the commerce. I mean, a marina is for profit. I don't care what anybody says. It's a business. Shipping is a business. It's a chance and there's risk to be taken and all that. But if you were going to subsidize it through higher water levels and other things to continue their businesses, then what about the property owners that are suffering losses? This is, this is just my concern. You know, you can't have it both ways. You know, if you're going to subsidize these things through higher waters, whether it be the fisheries or whatever, you also have to consider the people who are directly affected with the losses with the lands that are paying taxes, that are losing land, that are paying for the inner structures that lay people so they can do these things.

MR. STAKHIV: But I mean, you do realize that all of the sectors that we are studying --

MR. DRESWICK: Well, I understand that.

MR. STAKHIV: -- except for the environment, they all pay taxes.

MR. DRESWICK: Alright, ok. I know that, but when a boater comes down he's not paying land taxes and that on the road. I mean, some of it gets back filtered through but I mean, we are directly affected by being a property owner right on the shoreline. A big ship coming

through -- same thing with the environment, I mean, probably the worst thing that ever happened was blowing ballast to these ships from Europe. This is why you got the zebra mussels and everything. I mean, why did they ever stop doing it in the ocean? It was, what, for them to make more money. That was it. You know, you talk about the environment. I mean, this is the greatest environmental impact I've ever seen with these foreign invaders coming in our water system. You know, why would you blow ballast with dirty European water in our system, in our Great Lakes? I mean, these are problems that should be addressed. I mean, I'm just concerned because I've got property right on the lake and I see what happens. You got the water fleas, you got the zebra mussels. Look at -- you're talking about economic benefit. How much does the zebra mussels cost to our water systems and pipes and swimming and cutting your feet and the fishery, you know. I mean, these are things that got to be addressed, too.

MR. STAKHIV: Well, again, I mean, it's unfortunate that each of the studies that the IJC conducts are sort of narrowly focused. They're looking at this, that and the other thing. I know for a fact that the IJC and the governments are looking at the invasive species of zebra mussels. All of the other species that are changing the ecosystem. They're looking at a whole range of issues. Pollution issues. Contaminated sediments in harbors. So there are many other studies going on simultaneously to address many of the issues that you've raised.

MR. DRESWICK: That's all part of it. I mean, that's all I've got to say. I mean, if there's any programs you know of that could help us landowners that are losing land, you know, I appreciate it. Anybody in here that's a specialist on it or that's their field, Bill would gladly hear it. I mean, he lost 11 foot seawall and all his land, and his camp's teetering. You know, I mean, these are severe repercussions.

THE FLOOR: Why did you save Montreal instead of saving your own country here.

MR. STAKHIV: Well, but it's --

THE FLOOR: In other words, our country is washing away.

MR. STAKHIV: But it's part of, it was part of our design to develop balanced plans. It's not just, you know, your --

THE FLOOR: We live here too, you know.

MR. STAKHIV: I understand that. It's not just your property and this recreation, recreational marina or hydroelectric power. We're looking at trying to balance and meet the needs of all of the people in the basin and all of the interest groups. We can't just look at one sector independently of all of the other sectors.

THE FLOOR: You can go down that whole beach all the way to Fairhaven and you'll find it all destroyed, every bit of it.

MR. STAKHIV: If we could get him up the mike.

MR. FLOOR: If they raise the water.

MR. STAKHIV: That just isn't a fact. I think we tried to show you that the natural supplies into the system over the past 40 years have been much higher than the previous 100 years, and in fact the Board of Control, it's too bad I don't have the slide to show you, in fact the St. Lawrence Board of Control on average has lowered lake levels over the past 40 years by about two feet over what it would have been under natural conditions. So in other words they're maintaining it at about two feet below the peaks that would have occurred. I mean, that's the reality and that's the fact.

MR. TRIPOLI: Bill's got I think a question there.

MR. WERICK: Yeah. I just want to add to what Gene said. First of all, this is exactly why we have the meetings, so that we can hear this.

If you look at either the official written regulation plan or the natural regulation plan that would occur if man wasn't controlling things, you would see damages that would be about $10 million a year higher than what you have now. Whether you look at the plan that we have now or even the worst of these candidate plans, you see vast improvements. The sad part is is that this erosion is going to happen.

Earlier Gene showed you a plan that was designed just for the people who lived along Lake Ontario and we were able to slow erosion down even more with that plan, although it caused a lot of damage to recreational boating and it was really bad for the environment. Even with that plan, the erosion happens. It's just a question of how many years you can delay it. Eventually --

THE FLOOR: You're still holding the water back.

MR. WERICK: No matter what we do, this land is going to be lost. In fact, we measure progress in preventing erosion by the years when the erosion happens, not by whether it happens or not. With flooding, we can avoid flooding. We cannot avoid erosion.

MR. BROWN: Could I clarify the recreation issue just so that -- there were some statements made that really aren't true. I'm Jon Brown the U.S. lead for the rec boating evaluation technical work group and we -- just to make it clear what the benefits or disbenefits are to that category, it's not based on income to marinas. It's based on actual loss of use by boaters themselves.

So, there's actually three entry points for marinas by boaters. Boaters at marinas, boaters at private docks, boat via launch ramps. And so there would be restricted use because of insufficient depth or because of flooding and then the loss of those boater days was measured. And so it's not based on profit to marinas. And by the way, another thing about dredging, about 40% of the impacts is to private -- boaters at private docks, not at marinas.

And the other thing about marinas is that relative to the -- what we found is that there's many marinas that have a very marginal profit, profitability, and if they have sustained periods where there's low levels dredging is really not an option for a lot of them, even if they could. There's environmental restrictions and there's also some places where there's rock out there. So it's not even an option if the water is low.

So that's just some things I want to clarify with respect to the rec boating part of it.

MR. DRESWICK: But it's still about profit though. It's about marina and profit.

MR. BROWN: No, no. The other thing is though, the values that are shown are based on losses --

MR. DRESWICK: But a business is for profit though. Any business you get in you look --

MR. BROWN: Granted, but we didn't measure that. That's not what -- that's what the numbers are showing. Gene was showing those numbers. The losses are to the value to the boaters themselves.

MR. DRESWICK: Well, my point being is that, you know, as property owners, is that the marina is for profit, we're not for profit. We own that property as the marina does. But he operates it as a business as any other businesses that are out there.

MR. BARLETTA: But what Jon is trying to say though is --

MR. DRESWICK: There is risk in business.

MR. BARLETTA: But the costs or the profit or the economics of the rec boating numbers is just not the marinas. It's private boat owners. Like I live down the shoreline here from you. I've got a couple boats. Okay. The cost for me if I can't put my boat into the water off my break wall, there's a cost involved with that. That's, they're measuring not just marina costs.

MR. DRESWICK: But you have a dock though. Do you have a dock?

MR. BARLETTA: Yes, I do.

MR. DRESWICK: Can you extend your dock?

MR. BARLETTA: That might be possible but I may want the same regulation that you -- I live on the lake, too. Okay. I got a break wall. Okay? I run into the same regulations that you do as far as trying to put the break wall in, but I also run into the same regulations -- different regulations if I want to put a dock out there.

If I want to extend it, we'll run into the same type of regulatory problems. And the issue has been raised with the study as far as, you know, having as part of our report, you know, some ideas on regulation changes.

MR. DRESWICK: Well, that's fine, but still it's cheaper to extend a dock into the lake than to lose shoreline that you can't reclaim.

MR. BARLETTA: I'll agree with you on that because I live there.

MR. DRESWICK: That's what I got to say.

MR. QUICK: I'm Jim Quick, Arlene Quick from North Wolcott, Wayne County. We're on the shoreline since 1957. One of my notes tonight was hydro power.

I thought in some of the previous meetings they don't need excessive high levels. We went through a long period of time when the water levels were controlled by power and by navigation. They were the International Joint Commission and they said, oh, yes, we're looking out for the people on the shoreline. But I thought one of the things that come up in the past year was that power said that they like to have a steady source of water, but it didn't necessarily have to be as high as what they used to think it was.

Okay. The seaway --

MR. STAKHIV: Let me, Mr. Quick, can we answer them one at a time? I think it would be better.

MR. QUICK: Sure.

MR. STAKHIV: Bill, on terms of the reliability and the steady supply, we even factored that in.

MR. WERICK: You're right but both are important. The higher lake levels produce higher energy production in general. And then the other question is, is how much power do you produce in long droughts, and that's important also. So both aspects are important.

MR. QUICK: Tonight I thought it was brought up that they wanted high water and I thought that it was brought up in the last year that they didn't really want excessive high water. They just wanted a steady flow and it was short periods of time, probably like this week when it's excessively hot that they want to put out as much power as they can. But there's a limit to the high water MR. WERICK: Yeah. I would say that that's basically true, if you look at it from the perspective of say, the Control Board, because with a high lake you run the risk of having to make very high discharges to avoid flooding damages. A hydropower operator doesn't want the lake to be really, really high, but to have the lake a little bit higher as it is in some of these plans that you're seeing tonight means that year after year you will generate more electricity because it creates a greater hit.

MR. BARLETTA: Mr. Quick, I think -- let me just get to a slide. I think what you're referring to is slides we showed last year with the target water levels for the different interests. What we showed last year was, as part of our presentation was, each different interest had different target lines, like for instance, the environment wanted the water levels like to approach this level, or come down to this level. Coastal wanted it to stay underneath this curve. Hydro power --

MR. STAKHIV: Isn't on the graph.

MR. BARLETTA: Isn't on the graph. Okay. But they, they had their own criteria limits. Okay? That's what we were talking about last year.

This year, what you're seeing on this list is, okay, the plans try to meet these objectives in different ways and because of meeting them in different ways, you have different levels of flows which could benefit or disbenefit a interest in that particular plan.

So one plan might have a higher hydro value, doesn't necessarily mean that the water levels are higher. It's just that trying to meet these other interests, like Plan B tries to help the environment more, so you might have higher water levels with Plan B which would allow

hydro to have more water to produce hydro, or produce electricity, so you see a bigger benefit there.

MR. QUICK: One of my other notes was the Seaway. I've watched it since 1957 when it was opened, especially the Eisenhower lock and so forth, but the ships are bigger, they're -- and they're carrying heavier loads than what they did back in '57. And from a commerce standpoint, are they ever going to be happy at that water level? And the environment I guess, the next one is the environment and you cannot satisfy environment on the lower river level without flooding Montreal. I mean, I'm looking at the figures and I believe they want the wake at 248. They put it at 248 and --

MR. STAKHIV: You mean, you talking about the environmental index?

MR. QUICK: Yes.

MR. STAKHIV: 2.48.

MR. QUICK: They want 248 feet level for the flood, the wetlands or that. They flood the wetlands all right. They flood the shoreline, too.

MR. WERICK: The plan, Plan B that you see tonight does, that's one of the great weaknesses of it is that it does cause flooding damage down in Montreal much more than the other plans.

Now, in all of these meetings we're taking notes and listening to what you say and we'll continue to work on these plans. One of the things we know that we have to address on Plan B is that flooding in Montreal. It's just too high.

MR. QUICK: These are my notes for you tonight prior to me getting here.

MR. WERICK: Those are your handwritten notes?

MR. QUICK: No, those are --

MR. WERICK: That you brought with you.

MR. QUICK: Those are the good ones.

MR. STAKHIV: Prepared notes.

MR. WERICK: All right. Thanks.

MR. QUICK: Do you think the Mayor of Montreal on the International Joint Commission, he's one of the 10, he's going to let the environment flood him?

MR. STAKHIV: No.

MR. QUICK: I mean, let's face it. A person like that has a lot of power, a lot more -- I don't know if you want me to go through this fast or not.

MR. BARLETTA: Well, why don't we see if we get more questions. Anybody else have any other questions?

MR. EBERHARDT: First of all, I'd like to make it very clear that the St. Lawrence River Board of Control is the group that controls the outflow from Lake Ontario. This is not a Control Board meeting and I know you had a comment about the water level being high and them letting it get high. They have their own public meetings and they have --

THE FLOOR: The bigger the ships, the higher the water.

MR. EBERHARDT: Well, they have five city conference calls, too, that will be coming up, and that will be the place where you should go and voice your concerns about that.

But what we're trying to do tonight is come up with new regulation plans that we'll give to the Control Board so that they can use it and provide benefits not only in plans that may reduce erosion, but provide benefits for recreational boaters and maybe enhance the environment as well.

They're still going to have benefits to commercial navigation and hydro power because that's why the control structures were built.

THE FLOOR: When $90,000 sea walls don't last five years, something's definitely wrong.

MR. EBERHARDT: Well, that's why we need your comments so that we can incorporate those in the recommendations that we make to the IJC. And one more point, the IJC isn't made up of 10 members and there is no Mayor of Dourval on the IJC. He's a member of the Control Board.

THE FLOOR: Okay, I'll refer to the IJC.

MR. BARLETTA: You have a question on the other side?

MR. GALSON: Yes. My name is Alan Galson. I'm here as a representative of the Nature Conservancy. I'm on the board of the Central Western Chapter, that's Central Western New York Chapter. I'm past president of the board and I also am a board member of the New York State Board of the Nature Conservancy.

I'm a little -- and basically I'm here to voice my support for Plan B. On the other hand, I'm rather conflicted because I also happen to own an island on the upper river just west of the bridge, and -- on the Canadian side. And I'm a boater and use a marina on the Canadian shore to get back and forth to my island. So I have all the concerns of the recreational boater.

I have noticed in the 12 years that I've owned this land and lived there in the summertime, and the 10 years previous to that when I sailed a 30 foot Jay out of Clayton, that the ecology of the river has really changed.

It, I've seen a tremendous growth in cattails. I've seen the effects of the zebra mussels, and other, other changes that have concerned me very deeply.

And I think that just in general as I evaluate my experience living on and enjoying the St. Lawrence River that I've got to come down in support of the long term environmental health of the ecosystem. So that the reason we're all there in the first place will be there many years in the future.

I think in evaluating the economic impacts I think it is always very important to take a very long view of the impact of environmental change on the long term economic health of a system that is deriving a lot of its economic vitality from the very nature that we are impacting by our activities there. Having said that I really got to compliment all of you that are involved in this study. It's just a magnificent piece of work, I think, and it takes a real Solomon's genes to come up with plans that attempt to answer all the stakeholder concerns, which are generally speaking in conflict with one another. I think Plan B does a pretty good job of that but it does have two problems that are, that stand out.

One is flooding down river, and the other is low river level impacts on recreational boating and so my question is, what are you doing to modify Plan B, if it's possible, to minimize those two negative impacts?

MR. WERICK: Hi. My name is Bill Werick. Oh, I thought you were asking what I said. My name is Bill Werick, and what we're doing on Plan B to protect Montreal is try to come up with better forecasting techniques.

What happens that causes those damages is that Plan B follows a more natural cycle, which means that it leaves Lake Ontario higher most winters. So as you enter the fall and the winter, Lake Ontario tends to be a little higher.

Now, skipping ahead for a second to your question about boaters, most of the time boaters will like this because it means that the late season boating water will be a little bit higher, which means it will be a little easier to get your boat out of the water.

What that does though is that as you go into the winter and you are restricted as to how much water you could let out of Lake Ontario because of concerns about ice jam flooding, if you get a very wet winter and Lake Ontario rises very high because you started high in the fall. Then you've caught yourself as you come into the spring.

If the spring is also wet, you have to make big releases in order to avoid flooding on Lake Ontario and you flood Montreal if you happen to catch a bad discharge from the Ottawa River at the same time. So the big losses that you see for Montreal only happen a couple of times in a hundred years. And it's because of just an odd circumstance in the spring melt in the freshette on the Ottawa River.

So the team that's working on Plan B is trying to come up with better forecasting techniques so that when they go into the fall they can continue to keep Lake Ontario high except when they make a pretty good guess as to what's going to happen next year.

And the short answer to your question is, I think we've got the problem fixed. I mean, the woman who was working on it is very clever and I think she's got that problem fixed.

The second question is more complicated, but let me start by saying that most years boaters above the dam, in other words, on Lake Ontario, Thousand Islands, Lake St. Lawrence, are going to like Plan B because of that factor that the lake levels are

generally going to be a little higher. It's going to be a little easier to get in and out of your dock, and that's throughout the season.

But, during long droughts, the lake goes down just as it would under natural flow conditions, and it stays down there for years. So we'll have low lake levels for maybe four or five years, if we had a repeat of the 20th century hydrology. And that's exactly what the wetlands need because it allows them the chance to dry out the lower elevations and re-germinate those areas with a different mix of plants. So now, last night we were in Sackets Harbor, and about this time, and I have to give credit to the power companies, last night the power went out in Sackets Harbor. We had the last hour of our meeting in the complete dark.

We retreated to a room where I met with the recreational boating guys, and I said, how can we mitigate that. It's going to occur about one-third of the years if you look at a centuries long view.

And so we started a discussion about what you could do to mitigate those damages, find out exactly where those damages occur because they're not going to occur throughout the whole system, they're going to be more likely to occur at the, for instance, at the areas that Gene stopped in on his way down, the marinas and abayments are going to be more affected. Maybe dredging could help there.

So, that's the kind of thing we're looking at. You, earlier you mentioned floating docks and extending docks. Maybe those could alleviate those concerns in those years.

MS. GRISANTE: Hi. I'm Cheryl Grisante from Montario Point. I've been a resident up there since 1953. My family has been at Montario Point since 1939. Montario Point is on the eastern shore of Lake Ontario near the Lakeview Sand Dune Wildlife Management Area. I would like to comment on two things. The first is Gene's comment of fair and balanced.

When I look at the three plans, I don't see anything that's fair and balanced to the coastal processes, meaning the riparians. I see only shoreline losses. So I'd like to ask the Study Board to consider putting a little more spin on fair and balance when it comes to the landowners.

The second thing I would like to say is that I'm very concerned about the criteria that may have been used to qualify, quantify the economic impact of the loss of shoreline to the riparians.

Last year it was discussed at this meeting that you were using a dollar a day for parking at the beaches as a quantifier. When you consider the value of our property and the taxes that we pay, as several people have already mentioned, I can't believe that those results of those graphs come out as such. I think if you were to consider the value of our property and the taxes that we pay, you'll see a far more bigger loss to the landowners when you consider any of these plans.

The third thing I would like to say is that whichever plan you decide on, I hope that you have a criterion similar to 1958-DD, a deviation that will allow for unusual and unexpected events such as a hurricane passing through or a lot of snow melt all of a sudden, possibly even a band of thunderstorms as we've incurred -- encountered over the past couple days.

And I appreciate the recreational boaters wanting to have a better forecasting model, but forecasts are long term and do not take into effect these immediate and unexpected events that are mostly due to Mother Nature.

MR. BARLETTA: I'd like just a couple comments. With your third question regarding the short term criterion, I think I can possibly speak for -- that's going to be in there, some way or somehow that will be in there.

But for short term, like a hurricane, Gene showed that graph with the changes in Lake Ontario for a whole week. If we get a lot of water into the Lake Ontario it just, you can't get it out quick enough.

MS. GRISANTE: Exactly.

MR. BARLETTA: Forecasting would be good and that's one thing I've been harping on Bill, you know, try to get better forecasting for us. The other question you had about the economics.

Part of our process we have here is, you know, we bring, as PIAG members we bring information to the study and we bring it back out. I'll tell you right now, I came in here tonight with a similar question to Bill regarding housing values, and how, you know, like in my neighborhood I had some houses that sold for, quite frankly, I'm surprised they sold for that price. But our economics might be, you know, we have to go back and look at that. And Bill has assured me that they're going to do that.

MS. GRISANTE: I appreciate you looking at the housing values again, the amount of taxes that we pay and also having an opportunity to deal with unexpected climactic events. Thank you.

MR. WERICK: To touch on your three, too. First, Plan D actually does improve things over the plan that we have now so take a look at Plan D and express your support for that plan. Take another look. It's good for people who live along the shoreline.

The second thing is, I think you're probably referring to, we had a little debate about beach benefits last year and how we valued those. But the vast majority of the impacts that we're measuring to coastal homeowners are in three areas.

One is flooding to the house. Another is damage to the shore protection that's already there, like the shore protection that we talked about before. And then also the creation of new shore protection. And those amount to millions of dollars of damage. And we're using really sophisticated models that take into account the placement of your house, how far it is from the lake, how high above it is, and what the value of it is.

And Dan's question really was, you know, we started this study a few years ago and with low mortgage rates housing prices have gone up. And he's just making sure we check to make sure that we reflect those new higher prices.

MS. GRISANTE: Thank you.

MR. WERICK: And the third thing is, I'll just elaborate on what Dan said. There's a healthy debate going on about how much you stick to the plan or how much you deviate from the plan, and there's good arguments on both sides.

One of the good reasons for not deviating as much as we did before is that we now have the ability to look at 50,000 years of statistically generated hydrology so that we can make much better educated guesses at what we should be doing. And that would argue, use the results from the study, stick to the script, and make the decision that's in the plan.

On the other hand, there's another contingent on the Study Board that's arguing, the future is never exactly what you predicted it would be and so you've got to give the Control Board some freedom to deviate in extraordinary conditions.

What everybody agrees on is that there are going to be very short term circumstances that come up. Like, for instance, the power blackout that we had a couple years ago, where you just simply -- no plan is going to look at that and everybody agrees that the Control Board needs some power to deviate.

MS. GRISANTE: I just have one add-on question that's quick. What were your criteria for recreational boaters in measuring the economic impact of the plans that -- to them?

MR. WERICK: I'll give you kind of a quick general answer and if it isn't on the mark then tell me and I'll get into it or I'll ask Jon.

In general, the primary thing that drove the economics of recreational boating is; are the water levels such that people can take their boat out and in and have a nice day going boating? What's the quality of that opportunity?

When the water levels go high you start to see some damages because docks get flooded and you can't get to your boat. And the other end, when the water levels go low and docks are -- the water levels are so low that boats are tilted over in their slips, you can't get out of a channel, then the damages go really high. And we have different relationships at every point in the system.

MS. GRISANTE: Are there qualitative impacts ascribed also to the landowners? For instance, when there's shoreline erosion the rip-rap goes up and you can't ever look at your pretty lake. You have to look at stones imported from some landfill. You can't walk on your beach anymore because there is no beach. People walk over your property to get to the beach when the path to the beach is worn away.

Have you also included those kind of qualitative impacts to the landowners?

MR. WERICK: Not in any quantitative way. One of the things that is beyond our control, but we're still trying to encourage a dialogue on, is what kind of mitigation actions could be taken to alleviate the erosion concerns that are basically going to happen no matter what plan we come up with.

And invariably in a meeting like this, people come and talk about what's happening to them and you don't really care that we're here just to talk about water levels and that we have a very narrow mission. You're bringing up an issue that integrates all of these things.

So we're asking ourselves, is there some better way, for instance, could we find a way to distribute information about how to build good shore protection. In the end, it's an ugly choice, is that either you build shore protection or your land erodes.

MS. GRISANTE: Or you lower the lake so you don't have to build the shore protection.

MR. WERICK: No, that is not a choice. If we lower the lake, the erosion still occurs. It will occur a little slower but it will occur.

MS. GRISANTE: Thank you.

MR. WERICK: Okay.

MR. TRIPOLI: Scott Tripoli. I think Gene and Bill are getting tired of me beating this same drum but the three major criteria that were discussed were the environmental health of the system, maximizing net benefits and no disproportionate loss. It seems that most of the screens and displays that we show the net benefits in term of dollars. And I'm going to keep harping on them until we start to show some plots that show a percentage of change that will reflect a proportion of the damage to any particular stakeholder, because when you look at the net economic benefits you might find that the coastal zone was hurt $1 million dollars but it's $1 million out of how many? Is it $1 million out of $2 million dollars, so that they're 50% hurt? And if they have a economic benefit for hydro power of $5 million dollars, is that $5 million out of $5 billion so it's only a fraction of a percent?

I ought to keep hammer on him until we can get some proportionate figures up here so you can not only look at the economics but the ratio of damage to each of the individual stakeholders.

MR. STAKHIV: Well, you know, we do have that data.

MR. TRIPOLI: I know you have it. You just don't show it.

MR. STAKHIV: The problem is selecting from among 3,000 charts of data. But I'll show it to you.

MR. TRIPOLI: I've seen it already.

MR. BARLETTA: Mr. Quick?

MR. QUICK: You've had some real good comments tonight from some good people. I recommend that it stay calm, send secretary Arleen Kreusch a little note with them, and she knows how to pass them on.

One of your comments just now about the erosion though is, I've lost 140 feet out front. I'm down to nine feet to a nice cottage, which has to be moved. When I have erosion, that's permanent. It never comes back.

And it's interesting that right after the seaway was put in, I wish I had the newspaper clippings. They were saying, hey, isn't this great, we're not having any erosion like we did during the late ‘50's, and then I find out now that really they're saying we didn't have much

rain or whatever. And the erosion that we've had in the last few years has been natural. But the erosion we had in the year 2001 and 2002 was not natural. That was created.

I harped on the Ottawa River. We're using Lake Ontario for a reservoir. The Ottawa River free flows into the St. Lawrence. In the spring there's a lot of water going there. They hold back the water, or they lower the water in the fall to use Lake Ontario as a reservoir, so that in the spring you can hold it back and not flood Montreal.

Some of these people may not realize, an inch of water on Lake Ontario is equal to approximately 10, maybe 12 inches in the St. Lawrence River. So you -- we can't -- you can't just dump it overnight.

I've come to a lot of these meetings. I've learned an awful lot. I just -- and I appreciate that the study is being done because this is the first time that I've known that we've ever had public input. In the past it was always forced upon us. And I appreciate the efforts that are going into it. I just hope that my time and what I've spent on coming to these meetings doesn't go in vain.

(Applause.)

MR. STAKHIV: Let me, I appreciate your comments about the nature of the public input and everything but let me draw your attention to the chart that we laid out.

If you look at -- and you could look at what the impacts for erosion and flooding, in terms of the dollar impacts. We could translate those into feet of shoreline recession. We have that in the models. We didn't present it.

So if you look at Plan E, you see a loss of $30 million dollars a year, and that's the pre-project. That's before Plan 58-D was put in.

THE FLOOR: Try $30 billion.

MR. STAKHIV: What was that?

THE FLOOR: Try $30 billion instead of $30 million.

MR. STAKHIV: No, it's $30 million average annual benefits over a 100 year period. So some good years and some very bad years. During the very bad years it is closer to probably $200 million. But on average over a 100 year period, $30 million a year.

So before, before the seaway project, we calculate it would have been $30 million dollars a year damages. With Plan 58-D when it was put in, it was $27 million dollars a year. With the current plan, with the current plan 58-D with deviations, it's zero. And we're making improvements.

Plan D actually adds benefits. There's less erosion, less damage to all of the property. I mean, that's what, that's what the data shows, and that's sort of one of the benefits of doing this study is to collect all of this information, very detailed information. If you want it, we could give you rates of erosion literally for your property, what it would have been, what it could be, what it will be under different scenarios.

The fact of the matter is, the current operation has reduced flood damages or flood erosion over what it would have been with -- without the seaway.

MR. WERICK: And just to clarify what Gene said, it's not that 58-DD has no erosion. It's that the, without the dam, or if we followed 58-D, the written plan, it would have resulted in $27 to $30 million dollars more.

MR. QUICK: The 1958 plan was put together by power and shipping though.

MR. WERICK: Well, and they had limited information. You know, they based everything on the 1860 to 1954 flows and that's why they put in criterion K, because they knew that things could get wetter or drier.

What they didn't guess was, like you say, as soon as they built the dam they went through a dry spell and just by accident had less erosion. And then it wasn't 10 years later that they went into a very wet period.

MR. QUICK: Another thing that might help you with your planning is to have a true identification of boating.

You're going to have occasional boater goes out in May but boating season is really I think when school breaks out, we'll say Memorial Day till after September. And I know there's a man up on the St. Lawrence River up there that says he goes out in his boat until the middle of November and he wants high water. And this is not being real.

But we could truly identify the boating season, people on Lake Ontario -- unless you're out there for a fishing derby for an hour or two, you're out there in your winter below-zero coveralls because that's what the water is and your boat is.

MR. ROSENBOUGH: Hello. My name is Peter Rosenbough. I live in Oswego. I've lived here for about 20 years. I'm also a professor of biology at SUNY Oswego and I'm on the Oswego County Environmental Management Council.

I'd like to compliment everybody as well. I think these are difficult and complex issues. The stakeholders are clearly diverse. I guess the question I would like to ask relates to how you do these comparisons, dollars and cents time, what should be the parameter that should be used.

Clearly all of the stakeholders are not going to have their interests and needs met. I'm grateful we're involved in a deliberative process to try to come to some reconciliation of all of these diverging interests. But I guess the question comes down to a short term versus long term interests.

Has there been an analysis based on time rather than money? Fifty years down the road, a hundred years down the road? Where do these plans leave us; and I'm not expert enough to be able to evaluate the plans. My area is not Lake Ontario but I guess I would ask that people consider interests not necessarily simply in terms of dollars and cents or stakeholders but in terms of time.

My stake at this point is in my children and my children's children, not necessarily in myself. Therefore, based on that perspective, everything else being equal, I have to favor the

environmental plan over the others in that it seems to look more toward those long term benefits than the short term benefits of, you know, what has been stated here.

Erosion will occur regardless of what goes on. There's been tremendous impacts based on human impacts on the lake, and anything that can move back toward a natural set of processes seems to me more likely to insure the long term health of the lake for my children and my children's children.

So I guess my question just to sum it up would be, rather than dollars and cents or recreational boaters versus muskrats, has there been a discussion of a time interval, 50 years, a hundred years down the road, and evaluation of these plans?

MR. STAKHIV: We've had discussions like that, you know, about what is sustainable development, what is the time period for that. We looked at what does the future hold for hydroelectric power.

For example, there's a lot of advances going on in fusion energy. I can foresee a world 50 years from now where you don't need hydroelectric power. So then the question is, you don't need to manage for hydro power. You could use that water in different ways.

Same thing with navigation. There may or may not be navigation, commercial navigation in the St. Lawrence Seaway 50 years from now. And they're looking at all of these issues.

The other part, since you asked a philosophical question I'll answer philosophically. some of the debates have been about, there should be sort of an evolution, phases of a plan that you set your target some point a hundred years from now to a pre-project condition of the natural flow plan, and then you sort of, you set tile stones, you start with Plan D, for example. Then you move to Plan B at some point.

But the problem with that is that you need to mobilize lots of institutions in this region, lots of agencies. You need to compensate people whose property is eroding. If you implement coastal zone management planning and you say, look, the environment is more important than property owners, you have to find mechanisms for compensating them for their property. You have to find other places to go.

These are all parts of the discussion and the evolution of changing the management of this system from the current six interest group management to ultimately basically, you know, recreation oriented environmentalism, as an example.

But that would have to -- you would have to literally have a 50 year sort of strategy for achieving those goals because it -- it's not -- the IJC can't implement all of the hundreds of elements of that particular program. But they would have -- we would be able to characterize what it would take and require but it would really literally encompass hundreds of agencies on both sides of the border to kind of move along in the same direction, and you know how difficult that is.

We would have to get your planning management council among the hundreds to agree that this is what you want to do for Oswego, as an example.

MR. ROSENBOUGH: Our legislature might not agree with what --

MR. STAKHIV: And the legislature. So you know, you could see that it's -- but the IJC itself has been thinking in those terms so I need you, the current commission.

MR. ROSENBOUGH: Right. Well, and please, I'm grateful for the process. I'm grateful for its open and deliberate nature and hopefully that has no preconceived outcomes. One last question though.

As I've sat here and listened to a discussion about trying to balance the needs of all of the various interests, I guess I've been struck by the question of whether there -- the goal of trying to balance everything hasn't led to some diminishing of a long term goal. And I guess I wondered whether you could comment on that, whether this attempt to balance all of that diverging interest hasn't in some way diluted the product that has then come out.

MR. STAKHIV: Inevitably, as you work in a democratic process, all of the interests have to be taken into account and we try to balance. But as you could see, there are distinct differences between the plans, so even though, even though each plan tries to balance out all of the interests, there is an emphasis on different interests in each of the different plans.

So they are different mutual fund portfolios, you know, long term growth, short term growth, right. High risk, low risk. You could find these things in each of the plans. If we have the time, you know, we could go through all, we could go through all of the little minute changes that we made in these plans that would show you fairly distinctly that they are significantly different.

MR. ROSENBOUGH: Again, I thank you for the open process, the ability to speak tonight and for the work that you've been doing.

MR. STAKHIV: Right. Appreciate it.

MR. GALSON: Yes. This is Alan Galson speaking again. Necessarily your planning has relied on this historical information, weather information and the like.

If one buys the concept, which I do, that global warming is going to have a significant impact on the future weather patterns, temperatures and so forth, it would, I would imagine, have a significant impact on all of the evaluations that you have made based on historical data.

What have you done to build in to any of these plans sufficient flexibility to take into account future environmental changes, or do you have to scrap the whole thing and start all over again every 10 years to revise your judgments on economic impacts?

MR. STAKHIV: I'll give you a short answer and then I'll let Bill with the long answer. Good news and bad news. The good news is, we've done lots of work in that area. The bad news is, you have four different global circulation models, each coming up with different answers, with different directions, wetter periods, drier periods.

So we don't have any rationale basis for selecting one or the other. So we did all of them. Bill?

MR. WERICK: Yeah. That's a good summary. First, in addition to the historical information we've got the statistically generated hydrology which is, if you had lived here for

50,000 years and had seen very dramatic long wet periods and horrible long dry periods. So we have all that statistical, based on the current climate.

And then as Gene says, we've taken two different global circulation models that predict different things, and we've taken a wet and a dry scenario from each one of those. So that we've sampled what people think might happen with the doubling of CO2 and using those then. On all of the plans that you see tonight we do a robustness test.

We say, okay, this is a pretty good plan for the historical case. How would it work in the extremes of our current climate, much wetter and drier than 20th century, and then how would it work in any of these four possible climate change scenarios? And the quality of the work which is being reviewed by the National Academy of Sciences now is I think some of the best that's ever been done. So we have a really good answer to your question.

MR. STAKHIV: But you're still skeptical I see.

MR. GALSON: No. I just don't quite understand what you're doing with the information that you're developing. You got these four scenarios. What are you going to do with them?

MR. WERICK: Well, for example, I'm not sure I'm going to answer your question so I'll be short, and if I'm not getting at it, just tell me.

With Plan B, like I say, we're working on these. One of the weaknesses that we didn't show is that under very wet conditions that could happen under the current climate, very low probability, Plan B causes too much flooding. It's a weakness in the design of the plan that we would have never known if we had only tested it with historic.

So, the charge to the woman who's designing Plan B and her team is, you have to make it so it's robust enough to be a good plan even in those extremes. And it's the same thing that we're doing with climate change.

What we're finding in general is that even with the hot, dry climate change scenario, it doesn't put that much more of a stress on the system than the driest scenarios from the current climate. There are some subtle differences in timing because of snow melt, but when you look at the, the driest conditions that could occur, even without climate change, they're radically more dry.

So you can --

MS. GRISANTE: -- more dry --

MR. WERICK: More dry and more wet. So in other words, and this is, we know that this is true. A hundred years seems like a long time, but it really is just a small sample of the kind of weather that this region could get. And you could have years of high water, many more years than you saw in the `70's and `80's, much worse than that. And you could have much longer dry periods as well.

MR. BARLETTA: I've got a comment along with that climate scenario. One of our guidelines for evaluation of the plans was the robustness of the individual plans to climate change, as Bill explained.

What we found, and you know, this is, how many people on the board, there's 14 of us. We had, of the three plans, A and B were robust in the climate change scenarios. We had a mixed opinion whether B had the same robustness as the other two. I think that's correct, right?

MR. STAKHIV: Yeah.

MR. WHITE: I'm Dave White and I'm on the recreational boating tourism work group and the issue that the gentleman that just asked the question is getting at is a topic that's been discussed for at least the last year or longer, which is adaptive management. It's an issue that's been talked about is, if you pick -- whatever plan is chosen, there's a framework there that says it's good or bad for someone or good for all. The question is, in five years, will we be able to answer that question.

So how is the board going to look and how is the IJC going to find it. We as a recreational boating work group have looked at it saying, if Plan B has a loss for boating, we should be able to say in five years, it did.

So, how are we going to evaluate this plan in three to five years or longer, which means there has to be ongoing monitoring and data collection if it does or does not have an impact on erosion. That needs to be monitored from now, so how are we going to put that into the system so the IJC is coming back, that if you're going to have adaptive management and say in five years, well, the plan needs to be modified because it didn't do as was portrayed based on modeling and forecasting, and I'm one of those people that says, well, I watched the forecast last night, and I don't remember it saying we were going to get four inches of rain in Syracuse.

So I mean, you know, that has to mean, and one thing we've looked at in rec boating is, we've gathered a lot of parameters. We could probably have asked as a work group, identify 10 parameters that if you went out and asked annually, you'd be able to gauge, did the plan have the impact it said it would, and if not, then come back and re-look at it, how can it be modified in an adaptive management way.

So is that being taken forward at this point from the Study Board to identify adaptive management measures and fund them within the agency so that data can be collected to make sure the plan does what it's being portrayed to do, based on modeling and forecasting.

MR. STAKHIV: It's being done and we've had discussions about it, and even David Cline, who's sitting here, is putting together a report on all of the ongoing studies that we could characterize as being useful for the environment, that are being funded by the various agencies. So we need to kind of compile that information.

Other types of studies, as you mentioned, recreational boating, shoreline erosion, those would have to be done sort of periodically, you know, once every five or 10 years, because you're not going to see year to year changes in erosion, because you're going to have erosion, you're going to have accretion, depending on how the lake levels are and depending on the storms.

So we are recommending, we are proposing that there be an adaptive management component and that also sort of addresses some of the criterion for the flexibility for the

Control Board to adapt on account of other kinds of issues, not just lake level rises, but we're not meeting certain, you know, economic targets for recreational boating or navigation or whatever it is.

So there's a lot of this discussion being conducted by the Study Board, by the individual technical working groups, and even with the Commission itself. So that will be part of the report.

MR. WHITE: Would we as a technical work group be asked to provide the Study Board with what we recommend as criteria for long term adaptive management --

MR. STAKHIV: We, I mean, that would be useful. It would certainly be useful but I -- and we're going to ask the technical -- we have asked the technical working groups, you know, give us inputs on mitigation options, on adaptive management, what can be done.

But you need to, you need to all understand one thing; the IJC, the Commission, that group of six people, doesn't have the funding to support all of these adaptive management and mitigation options. They have to look to all of the other governmental agencies around the lake and the river who are used to doing these things.

The Corps of Engineers, for example, does shoreline erosion surveys, does a lot of the environmental restoration. NOAH, EPA, USGS, they're going to have to come up and contribute to that. So part of the process is, the IJC is going to have to knock on doors and say, this is our plan, we would like you to contribute to this plan. We don't know if this is going to happen or not.

But yes, the broad outline of all of this stuff is underway.

MR. KLEIN: David Klein. I'm a member of the environmental technical working group. I'm also a staff member with the Nature Conservancy.

I guess I have kind of a follow-up question for Dave White, based on what Dave White said. One of -- a key ingredient in any kind of successful adaptive management approach would be in my view an adaption of the existing government structure of the -- of the Board of Control, for example.

Finding a way to get, to include data, for example, from recreational boating or the environment or from the other interests, to bring that data to bear, that new information to bear, so that the Board of Control can actually make use of that, and have people on the Board of Control who might, who might be better qualified to interpret that data. Can you, could you kind of update us to the terms of where the Study Board is in its considerations of, you know, kind of a modified or advanced government structure.

MR. STAKHIV: Well, you might remember that we had a session on this, and extensive discussion and debates and we have a report on these changes, what you call government, institutional changes, what would be required. We discussed adaptive management. It's all in the report.

And part of it is the reorganization of the current Control Board, the people who make the decisions week by week about releases and flows, also appointed by the Commission and they report to the Commission.

So the Commission itself is very much interested in changing the composition of the Control Board to include more of the stakeholders, the riparians. Right now we have, we have a good Control Board, but they're all sort of professionals in their respective fields. They don't necessarily represent all of the interests that are on the lake, the six interest groups.

So I know that the Commission is very serious about changing the composition of the Control Board, making sure that they implement the plan that they select, and making sure that they use all of the information, the latest information. They'll have the models available that we developed.

We've got wonderful, wonderful analytical tools for them that will make their decision-making a lot easier, more reliable to you, more understandable, more replicable, and of course, they need to have the flexibility to adapt to changing circumstances, whether it's a hurricane, a power outage or a new piece of information that says, gee, you got it all wrong about the, you know, meadowmarsh. It's not the cattails, it's something else. Okay?

So this information will be coming in. That's what adaptive management is. This information will be coming in. There are thousands of professors around the lake studying every aspect, covering the same ground that we've covered, publishing hundreds of papers, and one of them may, may turn, you know, our views and thinking about how to manage the lake, that probably will be on, you know, be on my tenure here, I'm sure.

So we're doing everything that you suggested.

MR. GALSON: I have one further brief question. The -- there are various stakeholders involved in this overall issue. One of them is power generation. Power generation generates its power by utilizing the water resources in the lake and river. Does it makes sense to -- and let me furthermore state that one plan versus another affects the amount of money made by the power generator. Plan B lets you generate more power than the other plans.

Is it possible to take some of the funds that are generated by power generation to further the overall interests of the lake and river system in terms of ongoing planning, adaptive management, environmental enhancement and economic enhancement?

MR. STAKHIV: Well, before I hand it over to Bill, again, we discussed all of these issues. One of the things that I didn't realize is that New York State has an agreement with the Power Authority that something like 500 megawatts are being sold to the various interests around here, the companies and other municipalities, at a much lower rate. So they're already subsidizing a lot of basic power production and the companies and the commercial establishments that are associated with it.

So they only start making a profit above whenever they generate something more than 500 megawatts. In principle, benefits transfer is what you're talking about, can be done. I mean, there are -- people have done that in the past and taxation is a system for benefits transfer. You would have to get the New York State Legislature to do that. It won't be the IJC. So you're going to have to lobby your respective legislators and bring that idea up with them.

Bill, do you want to add anything?

MR. WERICK: Just briefly. We've raised that with the representatives from the power companies that work on the study, and they're open to it. Now we're not talking to the guys who sign the checks, but they didn't blanch, so I think it's something we should talk about.

The alternative -- let's say that we couldn't settle our differences and by default we were stuck with the plan that we've got now, the power companies would lose millions of dollars in revenue, and rather than do that, they might be willing to give part of those revenues to help other things.

MR. BARLETTA: I think I see a question coming.

MR. ROSENBOUGH: This is, it seems like an obvious question. I'm sure you thought of it. Let's say that plan whatever is adopted, and it will be assessed over a five year interval, a 10 year interval, and how will that process work in terms of evaluation of whatever plan that is adopted such that if perchance you get it wrong, there will be a chance to revisit that?

MR. STAKHIV: I'm pretty sure, I mean, I've been involved in a couple of these studies and they seem to kind of pop up every decade or so. There's always a lake levels reference study or a restudy or something like that. And unfortunately that, that's the way these things get done. It gets -- you get the attention of some congressman and he puts some money in the budget and he says, I want you to study it.

So it really, it really depends on the pressure from public interest like represented here. You go to your congressman and say, look, this plan has been in effect for the last five years, we don't think it's working, it didn't quite, didn't quite come up to expectations. We'd like you to fund a restudy of the plan, and here are the indicators, you know, we've got indicators -- we've got these indicators. We'd like you to study these -- indicators, collect new data and report back to us. Fundamentally that's the way the process works. And the IJC is certainly supporting of that. And they'll beat on the doors of the congressmen and they'll try to generate the funding.

But it's not going to be a fixed program over the next 50 years that every five years we're going to do a study, because there isn't any congressional committee that's going to support that.

MR. ROSENBOUGH: So there's no strategy under this overall approach for re-evaluation and reassessment in a period of time. It has to come back through the grass roots or the political process.

MR. STAKHIV: We're developing the strategy but this is what you would need, this is how you would undertake these studies, sort of a very rough plan of study and a strategy for these things.

But what I'm saying, the reality is, somewhere you have to get money for these things, for these various studies and restudies. And when you go to congress, when you go to the congressional committees, you're going to have to knock on doors and beg the various agencies to contribute to this stuff. It doesn't always work in the way you designed it and expected it.

MR. ROSENBOUGH: Fair enough. I'm mindful of the process that you bring up. I guess I would just suggest that in the same way that assessment data has been discussed already, it's important to know where you're starting and assess it while you're going along to put in there your statement to people that you deal with that regular reassessment is likely to be required because nobody does know what the future is or how that will play out on whatever plan is adopted.

MR. STAKHIV: Let me just add to this. The governments of the Great Lakes states, when I'm talking about the Canadian side, they're amenable to a lot of the stuff as well. The governor has just signed a big agreement for $2 million, $2 billion dollar 20 year Great Lakes program, and so there will be money in that, but it's very narrow.

It's mainly about rededication, environmental rededication and water pollution control. And I think one way is to get, you know, everyone who's here, these fellows, Dan --

MR. TRIPOLI: Well, I guess that wraps it up for the night. I'd like to thank Paul Santore for joining us, some other members from some of the other representative bodies that are here as well, I notice. Obviously from what you've heard this evening it's not going to be easy for the Commission to make a decision either to move forward with one of these plans as the plans are now or as they develop in the future, or whether to stay with the existing one. They have their work cut out for them. The study team and the commission thanks you for your input. There's a survey I believe at the desk or in your packet. Please fill that out and return it to us and if you need any further information or have additional comments, please forward them and we'll get back to you. So at this point, if you know of anyone else who might be interested in the information please pass it on and give them our name and email addresses, and you can find a lot of the information also on the website.

So thank you very much for coming, and good night.

(Applause.)

(Proceedings concluded.)

CERTIFICATE

I, THOMAS BAKER, certify that the foregoing transcript of proceedings in the USACE-PIAG, Public Meetings, was recorded utilizing a Sony BM-264, and transcribed from a Sony BM-246 transcribing and recording machine, and is a true and accurate record of the proceedings.

Signature

Associated Reporting Service
Post Office Box 674
229 West Genesee Street
Buffalo, New York 14201-0674
Date: 7/19/05