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## Standing Committee on Fisheries and Oceans

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EVIDENCE

Monday, June 18, 2012

## Chair

Mr. Rodney Weston

# Standing Committee on Fisheries and Oceans 

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- (1615)
[English]
The Chair (Mr. Rodney Weston (Saint John, CPC)): I'll call this meeting to order.

Mr. Ullrich, thank you very much for joining us today. I apologize for the delay.

Mr. Robert Chisholm (Dartmouth-Cole Harbour, NDP): Mr. Chairman, if I may, before we get into the committee, I just want to ensure the following. I passed around a notice of motion the other day and I want to indicate that I will be dealing with it on a future day. I just want to make sure that I have the opportunity to read it into the record before we move on to the committee.

The notice of motion is:
That because there continues to be a great deal of controversy over whether the government's plan to "modernize the fishery" means getting rid of the owner operator fleet separation policy on the East Coast; And since there are different views on whether fisheries management policy should be designed to maximize economic efficiencies or maximize jobs and promote the survival of coastal communities, we propose that the FOPO committee undertake a study into the owner operator and fleet separation policy, such study to involve consultations with east and west coast fishers and those dependent on the survival of coastal communities; such study to also explore international comparisons; and that the committee report its conclusions to the [H]ouse.

Mr. Chairman, I'll just indicate to you and members of the committee that I'll be calling that forward on a day in the future.

The Chair: Thank you very much, Mr. Chisholm.
As you indicated, that notice was served last Wednesday. The clerk circulated it at the time. Thank you very much.

Mr. Ullrich, as I was saying earlier, I apologize for the delay in starting here today. We certainly welcome your comments this afternoon and look forward as well to committee members having the opportunity to question you based on your comments.

I am sure the clerk has already advised you that we generally allow about 10 minutes for opening presentations. Our members are constrained by certain timeframes for questions and answers, so I will apologize in advance if I have to interrupt you. It's just in the interest of ensuring fairness for all members to be able to ask questions.

Mr. Ullrich, whenever you're ready, the floor is yours.
Mr. David Ullrich (Executive Director, Great Lakes and St. Lawrence Cities Initiative): Thank you very much, Mr. Chairman and distinguished members of the committee. It is a real pleasure to be here, and I appreciate the opportunity to speak with you today.

My name is David Ullrich. I am executive director of the Great Lakes and St. Lawrence Cities Initiative. I also serve as a U.S. commissioner on the Great Lakes Fishery Commission, a joint U.S.Canadian effort to work with the fisheries in the Great Lakes.

The Great Lakes and St. Lawrence Cities Initiative is a coalition of 90 U.S. and Canadian mayors who have banded together to advance the long-term sustainability-economically, socially, environmen-tally-of this great resource that we share in the Great Lakes and St. Lawrence.

Invasive species pose really one of the greatest threats that we face on the Great Lakes as two countries trying to protect the resource. With well over 180 invasive species introduced over the years, the biological balance has been severely disrupted by such things as sea lampreys, round gobies, zebra and quagga mussels, and many more.

Even with all of the damage that already has been done by these invasive species, the Great Lakes community is exceedingly concerned over the threat posed by the silver, black, and bighead, collectively referred to as Asian carp. Many believe they could have a devastating effect on the $\$ 7$-billion Great Lakes fishery that we enjoy.

Because it is virtually impossible to eradicate an invasive species once they are established, by far the most effect way to deal with them is to prevent their introduction in the first place. The invasive carp, I am embarrassed to say, were introduced legally into the southern part of the United States to control algal growth and plankton in fish farms back in the 1970s. They escaped into the Mississippi River system over the years as a result of flooding and by other means. They have spread as far north as Minnesota and Wisconsin, and have as many as 19 separate places where they could enter into the Great Lakes.

The cities initiative, that is, our organization in collaboration with the Great Lakes commission-amounting to eight Great Lakes states and two Canadian provinces as affiliate members-completed a report on January 31, 2012 that focused on one of the places of potential introduction known as the Chicago Area Waterway System, or CAWS, because it appears to present the greatest risk of entry to the Great Lakes. The report also concentrates on physical separation as the approach most likely to stop the invasive carp and a total of 39 invasive species likely to move between the Great Lakes and Mississippi River basins in the near future. It is very much a twoway street.

The report demonstrates that physical separation is feasible, and provides reliable information to decision-makers on a much more accelerated schedule than the normal government processes. The report demonstrates not only the feasibility of installing barriers of earthen fill, concrete, and sheet piling to create the physical separation, but also that it can be accomplished while maintaining or improving water quality, flood control, and transportation.

This is no easy task, as the 130-mile waterway system constructed over the past century resulted in a reversal of the flow away from Lake Michigan toward the Illinois River. As with any major infrastructure project, it would not be inexpensive. Initial estimates range from $\$ 3.25$ billion U.S. to $\$ 9.5$ billion U.S., with the cost of the actual barriers being a very small portion of the total, estimated in the range of $\$ 100$ million to $\$ 150$ million.

The report develops three alternatives after considering 20 potential barrier locations. The three alternatives are "near lake", using a group of five barriers; "mid-system", using four barriers; and "down river", using one barrier. They are named based on their proximity to Lake Michigan.

- (1620)

I did provide the staff a copy of a map. I don't know if it got translated and into your materials, but this will give you a sense of the system we are working with.

Because there are five entry points to the lake in this system, more barriers are needed if they are constructed closer to the lake. Although there is not a consensus recommendation, the mid-system alternative seems to represent the most cost-effective solution. These alternatives were developed over a 12-month period with extensive public, private, and non-governmental participation, including representation from Canada.

With the results of the report available, the cities initiative and the Great Lakes Commission are working with a variety of interests to accelerate the process of selecting the best solution to the problem of invasive carp and other invasive species in and near the Chicago Area Waterway System and proceeding with implementation. Time is of the essence, and full cooperation between the United States and Canada will be essential for the ultimate success of this effort.

Thank you very much, Mr. Chairman. I would be happy to entertain any questions any of the members might have.

The Chair: Thank you very much, Mr. Ullrich.
We'll start off with Mr. Kamp.

Mr. Randy Kamp (Pitt Meadows-Maple Ridge-Mission, CPC): Thank you, Mr. Chair.

Thank you, Mr. Ullrich, for being here and for providing this helpful information.

You said there are 90 cities involved?
Mr. David Ullrich: That is correct.
Mr. Randy Kamp: How is that broken down between the U.S. and Canada?

Mr. David Ullrich: It's about two-thirds Canadian and one-third U.S., with a total of roughly 15 million people represented. The number of people is split a little more evenly between the two countries. We have more Canadian cities than U.S. cities, and I think 16 or 17 are from Quebec.

## Mr. Randy Kamp: Okay.

Currently, there is this electric barrier in place, and I'm just wondering if you can tell us a little bit more about how this works. It's also my understanding that they have found at least some evidence of carp on the other or wrong side of the barrier, so maybe you can tell us just how that works. Is it designed for the carp species or will it keep everything on the one side of that barrier?

What are its vulnerabilities to failure? If you could tell us a bit more, that would be helpful, I think.

Mr. David Ullrich: Well, I'm not an electrical engineer, but I've followed this fairly closely. There are three barriers in this location slightly south and west of Chicago, about 40 miles from the lakefront. Electrical energy pulses are sent through the water, and somehow or other-although they have to be careful about thisthey don't electrocute people when they go over in boats. But there were a number of associated safety concerns.

Apparently, the system basically repels fish, and it isn't just carp or the Asian carp but all fish. So you have a zone that the fish will not swim through.

The concerns about its effectiveness are, among other things, that it works very well on medium-sized and large fish, but smaller fish can get through.

Secondly, it does not prevent any plant life from moving through. Generally, the flow is from the lake down to the river, so although we don't have to worry about plant life that might include an invasive species, or things such as zebra mussels coming up towards Lake Michigan, it would not stop any other types of invasive species. That is a concern as well.

Also, on May 2, 2012, there was an electrical failure and the barrier was not functioning for 13 minutes. There was backup power, which was supposed to kick in immediately. It did not. I'm not quite sure why that didn't happen. The U.S. Army Corps of Engineers is examining that. I know with things like hospitals and many other places where they have this backup power, it's absolutely essential that it kick in, but it did not. There is a concern about that as well.

People think that maybe for the short term it has been helpful, but to rely on that long term, particularly because it does not provide two-way protection against invasive species, would not be wise. Those are some of the concerns about the electric barrier.

- (1625)

Mr. Randy Kamp: Was that the first known malfunction of the electric barrier?

Mr. David Ullrich: It was the first unexpected malfunction.
About two years ago it was necessary to bring down the barriers for routine maintenance. Because there was uncertainty about a backup barrier at that time, it was necessary to do extensive rotenone poisoning and treatment of this particular portion, which is called the Chicago Sanitary and Ship Canal. So yes, there was one malfunction, if you will, but it was for anticipated routine maintenance, and as a result they had to do this extensive poisoning at the time. I believe Canada assisted in dealing with that particular situation.

But this most recent electrical failure was the only unanticipated one I am aware of.

Mr. Randy Kamp: What is your analysis regarding the Asian carp getting on the wrong side of the barrier? Am I wrong in thinking there have been at least one or two examples of actual fish being on the wrong side-as well as DNA, which I realize can come from a variety of different sources?

Mr. David Ullrich: There has been one bighead carp in particular in the Lake Calumet region. As recently as last week, apparently there were 14 additional hits of the environmental DNA. That has been the primary means, if you will, of an early warning that they have gotten beyond it. A couple have been found in ponds in the Chicago area, but the only way they could have gotten there was by human transport. I think there's only been one actual fish found.

Mr. Randy Kamp: So the cities initiative is supporting the notion of a physical separation.

Mr. David Ullrich: Yes, we are.
Mr. Randy Kamp: I'm sure you acknowledge the fact that's not going to stop all the vectors of the Asian carp finding its way into the Great Lakes.

## Mr. David Ullrich: That's correct.

Mr. Randy Kamp: Obviously you're confident it would go a long way toward that.

With the costs being so high, who would pay for that? Would these 90 cities be involved at all, or just federal governments, and provincial and state governments?

Mr. David Ullrich: It is undetermined at this point, but I think that with a project of this magnitude and given the scope of its significance across the Great Lakes.... Really, this is very much in the interest of the Mississippi River communities as well, because far more invasive species have gone from the Great Lakes to the Mississippi than have gone the other direction.

A combination of federal, state, and local funding would probably be necessary to make this a reality. The other possibility is some public-private financing in connection with transportation upgrades that would be done. It seems that with something of this nature, spreading it out as much as possible would be the most advisable way to go.

Mr. Randy Kamp: What are the main arguments you're hearing against the physical separation?

Mr. David Ullrich: The primary opposition is coming from the transportation sector. The barge industry, in particular, relies quite heavily on the Chicago Area Waterway System. However, the barge traffic in the Chicago area has progressively grown smaller and smaller, and at this point represents less than $3 \%$ of the movement of goods and materials in the Chicago area. It's predominantly by rail and truck now. Actually, Canadian Pacific and Canadian National are very extensively involved in the Chicago area.

In terms of the broader economic impact, it probably could be relocated to other places. But it's really been the water transportation industry that has been most opposed to it. Generally there's quite broad support for it. Obviously the cost is a real concern.

Mr. Randy Kamp: Thank you very much.
Mr. David Ullrich: Thank you.
The Chair: Thank you, Mr. Kamp.

## Mr. Chisholm.

Mr. Robert Chisholm: Thank you, Chair.
And thank you, Mr. Ullrich, for your presentation.
This is certainly a vexing issue facing our countries. I'm interested that the cities are involved in this issue as well and can appreciate the fact that the potential economic impact is a big one. Certainly we could have you talk for a second about the....

We heard from the commission about the idea of permanent barriers and how.... You were just talking about that a second ago. But that appears to be some ways off.

- (1630)


## Mr. David Ullrich: Yes.

Mr. Robert Chisholm: Even if we do get there, the cost to the economy, the net present-value cost, is estimated to be in the billions of dollars. I wondered if you could comment, for a moment, on how realistic it is that we'll be looking at some permanent barriers at some point down the road.

Mr. David Ullrich: That's a difficult thing to translate into a specific percentage. I've been working on environmental issues in the Midwest and on the Great Lakes for 40 years, and I think this is one of the biggest challenges. Frankly, it is a bit of a long shot that there would be the broad public support to make this happen. However, the more I've gotten into this issue, working with the Great Lakes Commission, and doing this work with a consulting and engineering firm, it really does show that it's feasible to do it.

The technology for the barriers themselves is really not terribly complicated. The real issue is the cost and whether or not the benefits associated with stopping the movement of invasive species in both directions can justify that kind of cost. I think it's always difficult with things of an environmental nature, where a lot of the benefits are really long term and a little harder to quantify than the short-term costs associated with the construction.

The cost figures associated with this are really spread out over a 50 -year period. They include capital costs and operational and maintenance costs. The one that appears to be most viable is in the $\$ 4$-billion to $\$ 5$-billion range, which is a huge amount of money. If you look just at the value of the Great Lakes fishery, which has been documented in the $\$ 7$-billion range...and you don't know for sure if this would wipe out the whole fishery or do severe damage, though it probably would do a lot of damage.

The other costs that can be avoided by stopping the flow of invasive species are the costs incurred to deal with the invasive species once they get to some location. The Canadian government, I'm very pleased to see, has recently made a commitment for $\$ 17$ million to deal with Asian carp. The U.S., by the end of next year, I think will have invested over $\$ 80$ million just to try to stop the Asian carp.

It's the kind of thing where, whether you're looking at zebra mussels or sea lampreys, at over $\$ 20$ million a year that our two governments are spending together, a lot of very major costs are imposed. My sense is that more work needs to be done on the costbenefit analysis side of things. One of the things we hope to do in the next stage of this work is to be able to document that more.

So I am convinced that this case can be made, and I am convinced that this is the kind of thing that the public will support, but because of the large dollar figure it will take some more time.

Mr. Robert Chisholm: Thank you.
Could you tell me a little bit more about the initiative in terms of your budget and how long you've been in existence? Does your budget come about every year, or do you have funding for the next three years, or five years? How do you work?

Mr. David Ullrich: Well, I spent 30 years with the U.S. Environmental Protection Agency as a federal civil servant, and retired in 2003. It was at just about that time that former Mayor Daley of Chicago called a group of U.S. and Canadian mayors together and basically said that he felt that cities had a huge stake in the Great Lakes and St. Lawrence but generally were not consulted much on decision-making and policy-making on the Great Lakes and St. Lawrence. He felt that cities should have a bigger say. Rather than doing that one city at a time, they should band together. That was the thinking behind the whole organization: to give cities a seat at Great Lakes and St. Lawrence decision-making tables, to create a best practices network among cities, and to travel to Ottawa and Washington to advocate for the cities.

We started with 15 or 20 cities. Actually, there had been a previous organization called the International Association of Great Lakes and St. Lawrence Mayors. We merged together and focused on water quality, water quantity, and waterfront vitality, but we have expanded to much more of a sustainability agenda.

We have a budget of about $\$ 700,000$ a year. We started out at $\$ 125,000$ and have grown slowly. About half of that comes from membership dues, and then the other half from government and foundation grants, so it's about fifty-fifty.

We have two full-time employees in Chicago and one part-time. The Quebec government provides us with an intern. Then we have three part-time contract employees here in Canada: one in Ottawa,
one in Montreal, and one in Quebec City. We had one in Toronto until recently, but Environment Minister Bradley hired her away from us, so we're down to three.

- (1635)

The Chair: You have about 30 seconds left.
Mr. Robert Chisholm: You indicated earlier, I think in response to a question, that two-thirds of the cities involved were Canadian.

Mr. David Ullrich: Yes, it's roughly two-thirds to one-third.
Mr. Robert Chisholm: And what are the populations?
Mr. David Ullrich: That's closer to fifty-fifty. It might be a little more on the Canadian side now-maybe eight million Canadian and seven million U.S.

Mr. Robert Chisholm: Thank you for that. I appreciate your dedication in trying to get to the end of this problem.

Mr. David Ullrich: Thank you.
The Chair: Thank you very much, Mr. Chisholm.
Mr. Leef.
Mr. Ryan Leef (Yukon, CPC): Thank you, Chair.
Thank you very much for coming today.
In the report that was written to come up with the initial estimates -and there's a pretty substantial range between the $\$ 3.25$ billion and $\$ 9.5$ billion-they must have projected some timeframes. What sort of timeframes would we be looking at if those kinds of projects and that money were, in a hypothetical world, to be approved for that range? How long would it take to put in a physical barrier for the $\$ 3$ billion project, and how long would it take for the $\$ 9$ billion project?

Mr. David Ullrich: Roughly, the timeframes are actually quite similar. The interesting thing about this situation is that not only are the barriers themselves the least costly and the easiest to put in, but the entire plumbing structure in the whole Chicago land area is dependent on the flows here. The construction work has to be integrated with other things that are being done with regard to water quality and flood control. If they were just going to build some barriers, put them in, and not worry about anything else, it could probably be done in three or four years or something like that. However, because of additional flood-control work and additional water-quality treatment work, the best estimate our consulting engineers came up with was that basically, to get the first stage of barriers in was going to take until 2022, and to complete the entire project, until about 2029. Obviously, that causes great concern because of what's going to happen in the interim. That's why the electric barrier is so important.

The other thing is the sampling for environmental DNA, and there's a lot of intensive commercial fishing being done, which we think is absolutely essential and critical in the short term, but not something we could rely on in the long term.

Those are not dates that I like, but this was the reality our consulting engineers advised us of.

Mr. Ryan Leef: When you mentioned electronic barriers as a solution, you said "commercial" fishing nets. Are you saying there's a commercial fishing market for the Asian carp right now?

Mr. David Ullrich: Yes, there is, which is very interesting.

Unfortunately, one of the markets is Canada. I think you are aware that the Canadian border patrol has interdicted six shipments of Asian carp at Sarnia, Port Huron, and Windsor-Detroit. However, most of the intensive commercial fishing being done on the Illinois River, and somewhat on the Mississippi River, is oriented towards markets in China. There have been state subsidies for fishermen in Illinois.

I don't know the quantities that are being shipped. The idea is to get the populations down as much as possible so there isn't continued pressure towards the Great Lakes. It appears that there is some success in this, but the carp's ability to reproduce and to consume all of the plankton in the water system is phenomenal. It's felt that in the long term this probably would not work, but in the short and mid term it would be a good technique.

- (1640)

Mr. Ryan Leef: I want to just stick on that point for a minute, because typically we have an innate ability to really take advantage of markets when markets are good.

Mr. David Ullrich: Yes.
Mr. Ryan Leef: I think humans are great at that.
Are there barriers to trade right now that could be facilitated by the Canadian or American government enhancing that commercial market? My line of thinking is that if we had a viable market, then with limited barriers and limited red tape we probably could go further. Or is it as wide open as it can get? Do you see any barriers right now that would...? Perhaps it's not economically feasible, or there's too much red tape, or there's not a really good market in China for it, or we just haven't expanded anywhere else.

I appreciate your comment that in the short term it's okay, but we need to think bigger and longer term. I'm not trying to minimize that; I'm just wondering if there is anything that's keeping us at this ceiling for a market for Asian carp.

Mr. David Ullrich: Well, it's interesting. Again, I'm not an expert in this field, but I have picked up bits and pieces from those who are working specifically on the commercial fishing. Apparently some of the most significant market restraints were within the U.S. itself. For some reason, apparently, carp were not deemed suitable for either cat food or dog food. Also it was deemed not suitable, by I guess the U. S. Department of Agriculture, for providing food to hungry people.

So it was easier to export it than it was to move it around within the United States. I don't know if there were any efforts to export to Canada other than the illegal efforts over the bridges of the Detroit and St. Clair rivers.

On the international market side of things, I don't think there were that many impediments. I think it was really just an issue of cost. It was necessary, apparently, that the State of Illinois government provide some subsidies to the commercial fishermen-though it didn't have the money to do this-so that it would actually pay to be able to ship these to China.

My understanding is that these are viewed as relatively highquality Asian carp back in China. I've eaten them. I find a good Canadian pickerel or something a lot tastier, but apparently the markets really aren't developing in the U.S.

There's another little concern about this, if I might mention it. To the extent that a good market is developed for this, then there obviously would be a constituency that would be supporting the continuation of it. I think the fear is that Asian carp will be viewed as a positive thing, and then it's okay that they get into the Great Lakes even if they might damage some other things.

It's a little tricky, and I would defer to your fisheries experts on this, which all of you are, and DFO. There's a little concern about pushing the market development a little too much.

Mr. Ryan Leef: Fair enough.
The Chair: Thank you very much, Mr. Leef.
Mr. MacAulay.
Hon. Lawrence MacAulay (Cardigan, Lib.): Thank you very much, Mr. Chair.

Mr. Ullrich, it's certainly good to have you here. You are an excellent witness and you know the subject.

Is it just inevitable that they're going to be in the Great Lakes if we do not put the barriers up? Do you think the carp will be in the Great Lakes? Is this a necessary move to prevent the Asian carp from entering?

- (1645)

Mr. David Ullrich: I believe that it is absolutely essential and if I felt it were inevitable, I wouldn't be spending my time on this.

Hon. Lawrence MacAulay: I agree that you would.
Now, there is a lot of money involved here-millions of dollars.
Mr. David Ullrich: Yes.
Hon. Lawrence MacAulay: Can you just explain to me a bit, as I am a farmer, how it works? The water is going to move. You talk about physical barriers. What are they going to be? The water still has to move.

Mr. David Ullrich: Well, first of all, back before 1900 this Chicago area was essentially a mid-continental divide between the Great Lakes basin and the Mississippi River basin.

Hon. Lawrence MacAulay: So it doesn't have to move.
Mr. David Ullrich: Yes, it does, and it moved in two directions. In 1900 a canal was dug, roughly 28 miles long, connecting the Chicago River, which had flowed into Lake Michigan but was carrying Chicago's pollution to the drinking water source, with people dying as a result of drinking the waste, and sent it downstream, which isn't a good solution. It relocated the problem.

Hon. Lawrence MacAulay: Being an environmentalist, that's a-
Mr. David Ullrich: Yes. St. Louis and other areas were not consulted about this.

But basically the theory behind this most viable of the three options that are included, the mid-system option, is that it comes closest to re-establishing the natural divide where it was before. Basically what you do is to put earth and fill-concrete sheet piling -in several locations. I don't know if-

Hon. Lawrence MacAulay: But the water would still flow.

Mr. David Ullrich: It would flow in two directions. On the lake side it would flow to the lake, and on the river side it would flow to the river.

Basically what it would do is stop the invasive species, including the carp, from getting up to Lake Michigan through the waterway, which is wide open right now. It's just totally open and the carp can go through there. But this has the advantage that it would stop everything else going to Lake Michigan, and everything going from Lake Michigan down to the Mississippi River watershed.

Probably the most notorious of the invasive species that have gone through the system is the zebra mussels, a species that is all the way out in California. The zebra mussels came right through downtown Chicago, which is how they got out there.

Again, 39 different species have been documented- 29 in the Great Lakes and 10 in the Mississippi River-as essentially ready to go in one direction or another.

That's the beauty of going with the physical separation. I think there are a number of Canadian and U.S. scientists who really believe this is the only way you can really have a chance at stopping them. It doesn't reduce the risk to zero because you're always going to have-

Hon. Lawrence MacAulay: A flood....
Mr. David Ullrich: -some rogue who is going to put them in a truck and try to drive them to Toronto, and we have to beef up our law enforcement with regard to that.

Hon. Lawrence MacAulay: But you talk about time being essential and it will be 2030, and of course, with government doing it, it will not be 2030 either. There is a long time to go before you're going to have these in place if it's done. So you have the better part of 20 years, probably, before you'll have in place what you recommend. Hopefully they will not get in during that time, but would you like to comment on that?

Mr. David Ullrich: That's why the interim measures are so important.

There was an article just last week in the U.S. newspapers about the corps of engineers' work in New Orleans in the aftermath of Hurricane Katrina. They basically did a $\$ 14.5$ billion project in three years. I am convinced that if a decision were made that this needed to be done and were expedited, it could be done a lot faster than that.

Hon. Lawrence MacAulay: Are we anywhere close to coming to a decision? Is there any way our governments...? There is a lot of money involved here.

Mr. David Ullrich: Yes.
Hon. Lawrence MacAulay: Is it anywhere close, do you feel? Are we within two or three years, or is it just an ongoing thing we're discussing? Where are we in the planning stage for this? I know where you are, but I just wonder where the people with the money are.

- (1650)

Mr. David Ullrich: One of the major reasons for doing this was to show that it's feasible; another was to do whatever we could to try to accelerate the process.

Yes, it probably will be about two to three years before a decision will be made. Congress is putting a great deal of pressure on the Army Corps of Engineers to accelerate that. I would offer that a strong expression of interest from Canada in this matter could only help.

Hon. Lawrence MacAulay: Well, we're going to write a report.
Mr. David Ullrich: I think making sure that the United States knows how important this is to Canadians would help. Every time I cross the border and I say I work on the Great Lakes, your border patrol people ask me about keeping the Asian carp out. The Canadian mayors in our organization have requested that the U.S. Army Corps of Engineers come and make a presentation in Canada, and we're in the process of trying to arrange something for next October in Toronto so Canadian citizens can know more about what's going on with this.

Hon. Lawrence MacAulay: I think that citizens do things and they do not really understand the harm of what they are doing. You talked about the Americans. Well, you actually took them into the country legally-

## Mr. David Ullrich: Yes.

Hon. Lawrence MacAulay: -and put them in place, introduced them. But do we not need more education? I believe if people understood that you're talking about billions of dollars in the economy.... In the last couple of years they stopped nine at the border coming into Canada.

Mr. David Ullrich: There were six separate ships, but I don't know how many actual fish were involved.

Hon. Lawrence MacAulay: But how many got in? That's the problem.

## Mr. David Ullrich: Yes.

Hon. Lawrence MacAulay: I always wonder what would happen if this money were spent on education, on informing the public-and I'd just like you to comment on that, on what a massive harm it is to the economy of the cities and the millions of people who live in the Great Lakes area.

Mr. David Ullrich: I think that's an absolutely essential element of this. Since we released our report on January 31, I've given close to 15 different presentations to the broader public and to narrower interest groups just to inform them about this. But absolutely education and outreach are critically important, with regard not only to the carp but to all invasive species. We're somewhat fortunate because the Asian carp is a bit of a poster child. All you have to do is go to Asian carp on YouTube and you can see all sorts of exotic things that they're doing.

The Chair: Thank you, Mr. MacAulay.
Mr. Donnelly.
Mr. Fin Donnelly (New Westminster-Coquitlam, NDP): Thank you, Mr. Chair.

And thank you, Mr. Ullrich, for being here and for your presentation.

I just want to pick up on some of the previous themes, but I guess the first question I wanted to asked is why municipalities find this issue so important. What do they see as their specific interest? You mentioned the multi-billion-dollar fishery, but maybe you could speak from the angle of the cities or the municipalities and just highlight that briefly.

Mr. David Ullrich: My best sense of this is that there has been a growing recognition on the part of mayors all along the Great Lakes and St. Lawrence as to how absolutely essential the integrity of the resource is to their broader economic well-being. Granted, the fishery is probably not a huge part of each one of their individual economies, but, just as an example, recreational boating associated with fishing and other things is very important. The marina business all along the Great Lakes and St. Lawrence is critical. But I think there's something beyond that, and maybe even more of an intangible, and that is the integrity of the resource. To anticipate that being really taken over, dominated by a species like the Asian carp, is something that just generally would make the resource much less attractive. I think city leaders feel this almost even more so than do, say, the governors or premiers, because they're right there all the time hearing from their citizens if the beaches are closed or the fishing's bad, or whatever it might be. So it's kind of the proximity and the immediacy of the interface with the resource that I sense really generates this very strong interest of the cities.

Historically, you're right: the cities haven't been as involved in issues like this. But starting with the formation of our organization, and the fact that we've grown, the cities really do care about this. That's my sense.
$\bullet$ (1655)
Mr. Fin Donnelly: So they're becoming much more progressive on issues.

Mr. David Ullrich: Yes.
Mr. Fin Donnelly: Thank you.
Perhaps you could mention the top three issues the initiative is focusing on or what you think Canada should focus on in dealing with aquatic invasive species.

Mr. David Ullrich: Just specifically on aquatic invasive species, Asian carp is clearly number one.

The second goes back to Mr. MacAulay's comment related to education and outreach. Certainly this is the kind of thing where cities have a real responsibility in terms of public education. Being able to do this through the school systems and other things I think is critically important.

I think the third issue with regard to invasive species would be the support of law enforcement. I think that getting the Canadian border patrol-and granted, it was the Ontario Ministry of the Environment that got involved-to inform the local police force of these types of things is an important thing as well, so that they can be trained to look for these things. There is some talk about generating, I think, a memorandum of understanding among law enforcement on the Canadian and U.S. sides to deal with this, which I hope would include local law enforcement.

That would be a third area for dealing specifically with invasive species.

## Mr. Fin Donnelly: Thanks.

In the remaining time I have, I just want to come back to the financing of the barrier. I know it came up earlier, but are cities willing to play a role in the financing? Did I hear you say they are? Perhaps you could comment on the timeline. Obviously a multi-year approach is needed. We're looking at, I would imagine, the provinces and the states as well as both national governments funding this.

Mr. David Ullrich: Yes.
Mr. Fin Donnelly: Can you provide any more detail on the breakdown of the timing, and the players involved in the financing?

Mr. David Ullrich: I really can't, and I'm sorry to say that; we put all of our emphasis on the technical and engineering side of things.

We knew this would be a huge challenge. Actually, as recently as Friday afternoon I was meeting with representatives of the Bank of Montreal about creative approaches to this.

I hesitate to commit the funds of any of our cities, but my sense is that cities view this as being so important that at the point down the road when decisions are made about this, I think they would be prepared to pay their fair share. The whole question is what is that fair share?

Mr. Fin Donnelly: Exactly, and that's-
The Chair: Thank you, Mr. Donnelly.
Mr. Fin Donnelly: Okay. Thanks.
The Chair: Mr. Allen.
Mr. Mike Allen (Tobique-Mactaquac, CPC): Thank you very much, Mr. Chair.

Thank you, Mr. Ullrich, for being here.
I have a couple of questions. First, with respect to the infrastructure and what would be needed, who has the final decision on it? Is it the government or is it the Army Corps of Engineers? I see they're doing their study as well. Who has the final say?

Mr. David Ullrich: It would be the U.S. Congress that would ultimately decide, because they would decide if the money could be spent. The Corps of Engineers is doing all of the technical work, but a project of this magnitude would go to Congress.

Mr. Mike Allen: Okay.
You talked a little bit about the use of rotenone in a certain section of the river.

Mr. David Ullrich: Yes.
Mr. Mike Allen: How big an area was actually done with the rotenone, and how did that work? Was it effective? And how could you tell if it was effective?

Mr. David Ullrich: If I am remembering correctly, I think it was a three- or four-mile stretch of the river.

There was a lot of dead fish: that's how you could tell it was effective. They did find, I think, only one dead Asian carp out of all of the fish that were there.

Mr. Mike Allen: Because it kills everything.

Mr. David Ullrich: Pretty much everything; it's probably not $100 \%$, but it's a pretty high rate.

They were very concerned, because they had to take the electric barrier down to do this maintenance work. I think it was a 24 - to 48hour period. They gave a really intense dose of rotenone. If I'm remembering correctly, it was a three- or four-mile stretch of the river, or perhaps a two- or three-mile stretch, something like that, so it was pretty substantial. It's fairly wide, and relatively deep as well. $\bullet$ (1700)

Mr. Mike Allen: Okay, thank you.
Just looking at your map here on other pathways, there are 18 potential aquatic pathways. I look at the Ohio River, which originates out of Pittsburgh and comes down through.... If the carp are that far up the Mississippi, are there instances when they've made their way up the Ohio River?

## Mr. David Ullrich: Yes.

Mr. Mike Allen: And when you look at the watersheds of the Cuyahoga River and others, what are the risk areas? How high a risk is there of them coming up the Ohio system?

Mr. David Ullrich: This is why getting a very detailed and comprehensive risk assessment is so important. We understand that Canada is doing some work on this right now, which we are eagerly awaiting. Actually, they're cooperating with the U.S. Geological Survey and the U.S. Fish and Wildlife Service.

I think the sense is, intuitively, that the Chicago Area Waterway System presents by far the largest risk, and because we can't deal with all 19 at once, the idea is to accelerate the process of finding and implementing a solution there. The U.S. Army Corps of Engineers is proceeding with its Great Lakes and Mississippi River interbasin study, but that's going to play out over some long period of time.

There has been some interim action taken in a place called Eagle Marsh, where the Wabash River, which comes up off the Ohio River and comes very close to the Maumee River, which goes out into Lake Erie at Toledo.... There's actually been installed not a full physical barrier, but a very tight mesh fence a mile or two long through this marsh, and they've actually seen carp, not Asian carp, up against that fence. But there are Asian carp in the Wabash River, and yes, they are up the Ohio River. As I mentioned before, they're all the way up into Minnesota on the Mississippi River and the Minnesota River and in the Wisconsin River.

Again, none of those potential contact points present anywhere near the level of risk that the Chicago waterway system does. We think it's important that the work go ahead on those, but we've really got to fast-track the Chicago waterway system.

Mr. Mike Allen: So the volumes appear to be going up the Mississippi, as opposed to up those sides?

Mr. David Ullrich: There was a thought at the time that the colder temperatures would be an impediment, but from work that I've seen recently, Asian carp can survive well up into Canada as well as the northern United States.

Mr. Mike Allen: There have been some suggestions from witnesses about enforcing the Lacey Act on the movement across
state lines of plants and animals, and if that were enforced maybe some of this wouldn't be as prevalent. Do you agree? And why is there minimal enforcement? Is it just too impractical to monitor across state lines?

Mr. David Ullrich: I don't know why there isn't the level of enforcement that is needed. I am extremely disappointed that there is not more aggressive enforcement on the U.S. side. I don't know if it's an issue of resources.

Frankly, the process of getting the Asian carp designated as an injurious species under the Lacey Act took way longer than it should have. Then even once it was designated, I'm certainly not aware of any intensive enforcement efforts. In fact, just when we were having our Great Lakes Fisheries Commission meeting, this was a real concern on the part of a lot of U.S. representatives. Just that week some charges were announced in the State of Michigan concerning grass carp, another variety of Asian carp, but that was done at the state level and not the federal level.

So I really don't know what's going on there, but I think we need much more aggressive enforcement. If they're getting to Windsor and Sarnia-and apparently they came from a trucker down in Peru, Indiana, who picked them up some place even farther south-then something more has to be done.

- (1705)

Mr. Mike Allen: Thank you.
The Chair: Thank you.

## Mr. Toone.

Mr. Philip Toone (Gaspésie-Îles-de-la-Madeleine, NDP): Again, thank you for coming.

We talked a little about financing. This is going to cost a substantial amount to fix if we're only talking about Chicago, and you mentioned that there are 19 other vectors where they might come in.

## Mr. David Ullrich: Yes.

Mr. Philip Toone: Let's start with that, actually. Where are the 19? Are they all around the Lake Michigan area? Are we talking about other Great Lakes?

Mr. David Ullrich: I'm just trying to remember. I think they reach at least four of the five Great Lakes. I can't remember if there's one to Lake Huron as well, but they're pretty much spread from Minnesota, through Wisconsin, Illinois-with the major one being the Chicago waterway system - and then Indiana, Michigan, Ohio, and I'm pretty sure Pennsylvania and New York. So through all of those states there is the potential of their getting in at least four of the Great Lakes. I'm not sure if there's a vector to Lake Huron as well. But, yes, it's quite spread out on the U.S. side.

Mr. Philip Toone: I'm assuming that on the Canadian side, the Government of Ontario would be particularly interested, but what about the St. Lawrence River? Would the Asian carp find a home in the St. Lawrence?

Mr. David Ullrich: My guess is that they could establish themselves there, but they would have to go a long way before they actually got there. They're not going to come up from ocean, because, to my knowledge, they're not an ocean-living species. So I think, yes, they could likely establish themselves, particularly in places like Lac Saint Pierre, which in my sense would be an ideal habitat for them. So, yes, they could.

Mr. Philip Toone: I noticed that you're going to be having a conference in Quebec City in a couple of weeks.

Mr. David Ullrich: It will be next week.
Mr. Philip Toone: It will be next week, and Régis Labeaume, the mayor of Quebec City, is going to be your host.

Mr. David Ullrich: Yes.
Mr. Philip Toone: I'm assuming we're going to be bringing this up to him as well.

Mr. David Ullrich: Oh, yes. He's quite aware of it already. Who knows? You may be hearing from him about it.

Mr. Philip Toone: We hear from him often.
Mr. David Ullrich: Yes.
Mr. Philip Toone: Getting back to the cost, then, you were mentioning earlier that the municipalities are feeling under some pressure, perhaps some obligation, to participate in funding. I think you also mentioned private-public partnerships. Is there anybody calling for PPPs right now?

Mr. David Ullrich: There isn't a groundswell for public-private partnerships. Frankly, it's been the people who are working on this. Obviously, you want to look at as wide a set of sources of funding as possible. We do think that if there were some significant transportation improvements they would benefit the Chicago area and mid-west economy. You all know how much trade we do with Canada as well. This is the kind of thing that perhaps the shipping industry and the transportation industry in general might be interested in making some investments in. Obviously, there'd have to be some return on this. Apparently the work that was done at the Port of Long Beach out in California attracted some fairly significant private partnership investment.

Mr. Philip Toone: When I look at the work that's being done around Chicago, I'm not seeing any legislation. I'm not seeing any elected official calling for PPPs. There's legislation right now in Congress to speed up the work of the Army Corps of Engineers, and nobody seems to be recommending PPPs there. So do you know how much Canadian shipping actually goes through the Chicago canal system?

Mr. David Ullrich: I do not. In fact, one of the real difficulties we had was getting origin and destination information on what is shipped through there. As a result, our work was a lot more difficult. Apparently a lot of this is considered proprietary information. We were able, from the Corps of Engineers, to get what's called "past the point"-what was coming in one direction or another and what was in the load-but we couldn't find out where it came from and where it was going, and that made things difficult.

I really don't know. My guess is there's probably not a huge amount that would go through that area from Canada, but I really don't know.

- (1710)

Mr. Philip Toone: So to get back to that, as you say, there would have to be a certain return. But we don't even know who might be using it, and we wouldn't even know who to approach to start a PPP at this point.

## Mr. David Ullrich: Right.

Mr. Philip Toone: So would you be calling for us to be looking at that more attentively or is there any way to actually get that information?

Mr. David Ullrich: No, I'm not calling for you to do that. I think we have a lot more homework to do on our side before I would consider approaching our good neighbours to the north on this.

Again, we're in the early stages of this, and I think a lot more work has to be done to determine whether that's viable.

The Chair: Thank you, Mr. Toone.
Ms. Davidson.
Mrs. Patricia Davidson (Sarnia-Lambton, CPC): Thanks very much, Mr. Chair.

Thanks, Mr. Ullrich, for being here with us today.
We had a little discussion before we started, and you know this is certainly an area of great concern to my riding. Of course, our Mayor Bradley and our warden are part of your group.

Just so we're clear, your group works in an advisory capacity, does it? Who do you meet with? Who do you give advice to? Who do you pass your findings to?

Mr. David Ullrich: Basically, we will pass our findings to anyone who is willing to listen. We think our work is credible. We don't have any official government standing. We're a private, non-profit organization. We think our work has integrity and standing for itself.

Again, the major reason we did this-and we were approached to do this-was to do something that we thought could be done a lot faster than the normal government processes. We wanted to get the concept of the feasibility of this on the table, and the fact that this is a good, viable solution. We hope it will bring the regular processes to a decision sooner rather than later. But in terms of official standing, no, the U.S. government didn't ask us to do it.

I will say, though, that the governors of Illinois and Ohio, as well as the mayor of Chicago and the mayor of Grand Rapids, Michigan, were on our executive committee and oversaw the work. So they were involved, but it wasn't an act of the legislature or anything that had us do this work.

Mrs. Patricia Davidson: I think it's great that you did it, and the fact that you have a report that's coming to us speaks very well for your organization.

## Mr. David Ullrich: Thank you.

Mrs. Patricia Davidson: We've heard so many different things since we started this study. The one thing that's been common with everybody is that although Asian carp certainly isn't the only invasive species, it is the one that people most fear at this time.

The question about the physical barrier at Chicago causes a fair amount of discussion and maybe dissension because of the fact that it could be economically disruptive.

Mr. David Ullrich: Yes.
Mrs. Patricia Davidson: Who is responsible for what is another thing we've wrestled with at this committee.

What would your suggestions be as we move forward? The Canadian government has put money in as recently as the last couple of weeks to help with prevention and education, as two things. Can you tell us, as a committee, what direction you would hope we would be able to take, or in what direction you think we should go?

Mr. David Ullrich: Those two steps that you've already taken I think are critically important. A step that is under way-namely, advancing the science associated with understanding invasive species, and specifically Asian carp, and the kind of risk they present-I think is very important. So there are those two things.

This law enforcement side of things is critically important. I would hope that maybe some of the good work that has been done on the Canadian side could rub off on the U.S. side in terms of stricter enforcement of the Lacey Act. I think some kind of law enforcement exchange, possibly a memorandum of understanding with federal and provincial and possibly local authorities, particularly in places like Sarnia or Windsor and Port Huron and Detroit, could be very beneficial to help interdict these. I think those types of things would be exceedingly important.

The other thing - and I leave this to the Department of Foreign Affairs and International Trade, or whoever-is that I have spoken with Ambassador Doer about this matter, and he has a very strong interest in it. To the extent that the Canadian government can continue to communicate the strength of the interest up here, I think that would be very valuable.

Those are the types of things I think would be very beneficial.

- (1715)

Mrs. Patricia Davidson: Before I saw this map, I wasn't really aware of the 19 pathways where they could enter the Great Lakes. I found that very enlightening.

Is there any possibility that if you disturb the route they're now taking, up the Mississippi, the most direct route, they will just divert? Will the carp do that?

Mr. David Ullrich: That is my guess. Actually, this is part of what's happening with the intensive commercial fishing. You go to a certain location and essentially try to fish out the fish in that particular location, but then they'll go to another place where they find a food source and an appropriate habitat for reproducing. They then can establish themselves in another location. Now, whether that sends them up other tributaries or what, I'm not certain, but-

Mrs. Patricia Davidson: One of the scientists who was here felt -

The Chair: Thank you, Ms. Davidson. You're out of time.
Mrs. Patricia Davidson: I'm sorry.

## I guess I'm done.

Voices: Oh, oh!
The Chair: Thank you.
Mr. Ullrich, on behalf of the entire committee, I want to thank you for taking the time today to appear before our committee and answer our questions. It was very much appreciated.

Mr. David Ullrich: I greatly appreciate it. You obviously are very attentive. I know you're extremely busy and I greatly appreciate the fact that you took the time to hear me out. Thank you.

The Chair: We certainly do appreciate your accommodating our schedule. We've had to change it around a little bit. Thank you very much.

There being no further business, this committee stands adjourned.

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