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Chair

Mr. Harold Albrecht

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● (1535)

[*English*]

The Chair (Mr. Harold Albrecht (Kitchener—Conestoga, CPC)): I'd like to call meeting number 17 of the Standing Committee on Environment and Sustainable Development to order, please.

We welcome today our witnesses: from the Quinte Conservation Authority, Mr. Terry Murphy, general manager and secretary treasurer; from Conservation Ontario, Bonnie Fox, manager of policy and planning; and from the Lower Thames Valley Conservation Authority, Don Pearson, general manager.

Welcome. We will begin now with your opening comments. Each of you has a 10-minute opening statement. After we've had all three statements, we will go to different rounds of questioning from the members.

We'll begin with Mr. Terry Murphy, general manager and secretary treasurer of the Quinte Conservation Authority.

Mr. Terry Murphy (General Manager and Secretary Treasurer, Quinte Conservation Authority): Thank you, Mr. Chair, and members of the committee.

First of all, thank you for giving us the opportunity to talk about something that I've been working on for over 30 years and has become a major part of my life. I hope to see it finished by the time I retire.

I should also mention that my other role is co-chair of the Bay of Quinte restoration council. So for all of the Bay of Quinte RAP programs, I co-chair that restoration work.

Quinte Conservation is one of Ontario's conservation authorities. I'm not going to talk a lot about it because Bonnie will fill you in on what Conservation Ontario, our umbrella group, does for us.

Over the years with conservation authorities, the programs we do all have an impact on improving the environment of the Great Lakes. In our case, the whole watershed of the Quinte watershed drains into the Bay of Quinte. The Bay of Quinte was identified as one of the hot spots in the Great Lakes because of the severe pollution over years of not knowing what people were doing when we were dumping pollution into the rivers draining directly into the bay. The contaminants that were carried down the rivers at the time came mainly from industrial pollution. To the north of Belleville about 50 kilometres, there was an old mining site, the Deloro Mine site, where the by-product was arsenic. Thousands of tonnes of arsenic made it down the river into the Bay of Quinte and also carried other pollutants.

On top of that there were phosphorus problems generated by agriculture and industry adding to the contamination problems in the bay. One of the biggest problems with the Bay of Quinte is that it's fairly shallow. It's not a deep body of water that has changes and has fresh water pumped into it all the time, so it is a problem that requires constant management.

Over the years our focus has been, through partnerships with Environment Canada, Fisheries and Oceans Canada, the Ontario Ministry of the Environment, the Ontario Ministry of Natural Resources, the Ontario Ministry of Agriculture and Food, and the health units, to educate the public, educate politicians locally, and also to put programs into place to help restore some of the issues that were prevalent in the Bay of Quinte.

The Bay of Quinte is extremely important to the area. You have to keep in mind that the whole watershed population is about 125,000 people, so we don't have an unlimited amount of financial resources to correct all the problems that exist in the bay. On the other side of things, the Bay of Quinte, from a tourism point of view, is worth millions of dollars a year because of the recreational opportunities that it provides. It's still one of the best fishing places in Canada and attracts a lot of tourists from the States and Europe to come to the Quinte area to fish for several weeks. They pump millions of dollars into the area's economy.

When we talk about delisting an area of concern, it brings up some questions. What happens after we delist? There were 80 points identified 30-some years ago by the public and by experts that had to be addressed. To date we have knocked off 50 of those concerns. They've all been corrected. We have 30 left that have to be completed. They're almost complete.

The problem we have is that the 30 that are left are all connected to phosphorus levels. If we can contain the phosphorus levels, we can control the rest of the problems and take the Bay of Quinte off the list of hot spots. What that means to tourism and promoting the area is that people still say, “The Bay of Quinte is one of those bad spots. We don't want to go there.” We want to promote it as being an area that everybody should come to because you can eat the fish, you can drink the water. The bay is clean.

One of the concerns that we have about delisting is that in our area —I'm talking about the Quinte area only—we deal with 18 municipalities. None of those 18 municipalities has the expertise on staff to manage an area like the Bay of Quinte to monitor and ensure that the Bay of Quinte always is in good shape and doesn't revert back to the way it used to be.

Quinte Conservation does have the expertise, but we don't have the financial capability for doing all the work that's required. We have the staff expertise but not the dollars required to pay for sampling, such as the sampling of algae and the sampling of the water quality and that type of thing.

I don't have the exact figures, but we estimate that we've spent probably about $10 million in cleaning up the Bay of Quinte. It has been money well spent. On top of that $10 million, private industry and the agricultural community have also pumped in several million dollars to match grants that were provided through the federal and provincial governments to protect wetlands, to restore shorelines, to put in alternate watering holes for cattle, and for manure storage and that type of thing, to prevent runoff into the creeks and to try to control the phosphorus problems.

We need to protect our investment. We can't just walk away from it after we take it off the list. We definitely hope that there will be continued funding to make sure that those hot spots don't go backwards. We have to continue to monitor. We have to know what the state of this is. We have to continue to understand where we're at from a scale that we now can compare to from the past.

One of the big concerns I have is the direction that the federal government, through DFO, and MNR and MOE are taking in terms of reductions in staff available to carry out programs on the ground. I'm also very concerned about the new self-help, do-it-yourself permitting. You can now go on a website and get a permit under the Fisheries Act. You can go to a website and get a permit. You will be able to get water-taking permits. MNR, public lands...anybody can abuse those systems. That's going to have a negative impact on what we have done for the last 30 years. I think we're going in the wrong direction in some of those areas.

The last thing that we have a major concern about is climate change. I know that a lot of people think we don't have global warming and that, after this winter, climate change doesn't exist. Well, we know it does. One of our jobs is to manage dams into the Bay of Quinte. We have 39 dams. We used to automatically put the logs in the dams at a certain date and pull them out at another certain date. With the microbursts now and the changes in temperature, last year we were a month behind. You can't go by dates anymore. You have to go by what's happening with the climate. It's affecting everything we do. It has affected the Bay of Quinte. We didn't expect zebra mussels to come in as an invasive species or the impact that's had.

We have to be very aware of all of these things. We can't just walk away. We have to keep monitoring and making sure that we have programs in place to educate the public and educate the local politicians, and to make the public proud of the resource they have and make everybody want to chip in and protect the future.

I could go on for hours, but I'm trying to keep it under 10 minutes.

● (1540)

The Chair: We're getting close, but you still have another minute if you need it.

Mr. Terry Murphy: In conclusion, in the conservation authority program, we will continue to do all the programs that a conservation authority would do. After the bay is delisted, we will continue to do all the programs to improve water quality. We will continue to work with the agricultural community, and we will try to get grants wherever possible to help them. We will continue to work with all of our partners through the federal government and the provincial government. We have had good partnerships over the last 30 years.

We've accomplished a lot of work. It has been very positive. I would just hate to see a lot of the work off the table and to see that, all of a sudden, because the Bay of Quinte is not on the list, it's the end of the care, the end of the financing, and the end of the attention that we're paying to it. We've spent a lot of money. We've invested a lot and we've accomplished a lot, and I would hate to see it all go backwards.

The Chair: Thank you very much, Mr. Murphy.

We'll move now to Bonnie Fox from Conservation Ontario.

Ms. Bonnie Fox (Manager, Policy and Planning, Conservation Ontario): Good afternoon. I'm Bonnie Fox. I'm the manager of policy and planning at Conservation Ontario. We are the organization that supports Ontario's 36 conservation authorities.

Conservation authorities are community-based watershed management agencies. Of the 36, there are 35 conservation authorities that drain into the Great Lakes Basin and the St. Lawrence River Basin. Of those 35, there are 26 that have a Great Lakes shoreline and St. Lawrence River shoreline.

Of Ontario's population, 90% resides within conservation authority boundaries. This is both a challenge and an opportunity in terms of balancing human needs with environmental and economic needs.

Conservation Ontario coordinates watershed level input into Great Lakes and St. Lawrence River issues through a couple of ways. We will set up review committees of conservation authority technical experts and we will endorse representatives to sit on binational Great Lakes and domestic committees.

As well, the conservation authorities themselves provide an effective coordination and local delivery mechanism for provincial, federal, and municipal priorities. So, for example, it's what Terry was talking about federally with the remedial action plan program. At the provincial level, for example, it's the provincial groundwater monitoring network and local rural water quality programs.

With regard to priority locations in the Great Lakes Basin, I wanted to draw your attention to four broad areas.

The first is the Great Lakes areas of concern.

The second one is Lake Erie. It's suffering from excessive nutrient loads to an ecosystem that is too impaired to deal with them. From the Canadian side, it would likely require a focus on the Grand River watershed as a major contributor to loads, and, as well, for the western basin, the Thames River.

The third area I want to draw your attention to is the nearshore areas of the Great Lakes, in general, and as a major threat to the nearshore areas, the contributing watersheds.

As a starting point, the areas that could be focused upon are where there are already federal, provincial, and municipal collaborations to deal with nearshore issues. For Lake Huron, the southern Georgian Bay collaborative comes to mind, as well as the Lake Huron Southeast Shores Initiative. For Lake Ontario, the Greater Golden Horseshoe comes to mind.

The final priority locations are natural areas that provide significant support to our Great Lakes and St. Lawrence River ecosystem. That may include the headwaters, large natural areas, wetlands, and shoreline areas. Preliminary priority locations have been identified in lake biodiversity conservation strategies that were developed by binational committees. These natural features in areas improve water quality coming from the contributing watersheds, and they are the nurseries of our commercial fisheries and endangered species, and resting areas for migratory birds. One of those priority areas is the Bay of Quinte.

With regard to efforts that are currently under way or planned for remediation, I can tell you conservation authorities have a lot of experience in developing and implementing a range of local conservation programs. Best management practices within watersheds and along the shorelines of the Great Lakes improve water quality, and they create green jobs to boost the economy.

We consistently hear from the conservation authorities that they need more incentive funding to promote voluntary actions. This funding cannot be short term, but needs to be multi-year and long term. This allows momentum to build and community action to occur.

There are some best-bet actions I want to highlight that are occurring, but they require greater investment to have real impact.

● (1545)

Number one are rural and urban stormwater management practices to reduce non-point source pollution. I'm talking about agricultural best management practices, urban stormwater management, green infrastructure, and low-impact development techniques.

The other area is habitat enhancement projects for improved biodiversity and resiliency in the nearshore. Examples of those projects would be dam removal or naturalization of Great Lakes shoreline protection works.

As indicated earlier, the nearshore of the Great Lakes is a vital resource. There's no question that the nearshore ecosystem and dynamics affecting water quality need to be understood. As well, the contributing watersheds, as one of the major threats to the nearshore, must be recognized in nearshore science and assessment activities. There must be measurable targets set for the nearshore areas to achieve improvement of Great Lakes water quality. An integrated watershed management approach would enable the assessment and subsequent adjustment of watershed actions, like the BMPs I've mentioned, as necessary to meet the targets. Monitoring and reporting will ensure accountability.

In the Greater Golden Horseshoe especially, it will be important to examine population growth projections and land-use scenarios that are watershed-based and modelled for climate change predictions that demonstrate what we need to manage and adapt to. Watershed and shoreline managers need to be able to access climate change data and information specific to the Great Lakes region, and that is not something we can do locally.

Turning to your final question around best practices that will facilitate further remediation of areas of environmental concern within the Great Lakes Basin, a critical best practice that's currently being enhanced under the Great Lakes Water Quality Agreement is collaboration. Collaboration between all levels of government, first nations and Métis, watershed management agencies, and others is necessary for improvements to Great Lakes water quality. In particular there needs to be greater collaboration on governance, science, and action.

For governance, Conservation Ontario has taken the position that, given our role in local watershed management, we should have representatives at decision-making tables wherever priorities are being set and work planning is undertaken. We have a seat on the Great Lakes executive committee for the Great Lakes Water Quality Agreement and on a number of the annex committees and task groups. That's a great start and we appreciate that. It would be good to see similar engagement under the new Canada-Ontario agreement.

Collaboration is also necessary for the action agenda with regard to increased implementation of stewardship and capital assistance programs, as well as education and outreach programs. These actions must be supported with an adequate and collaborative science agenda with regard to research, monitoring and reporting, and ensuring accessible information.

Another important best practice in remediation that I would like to share is prevention. We need to transfer the tools and the lessons learned across the basin, lessons we know will benefit Great Lakes water quality. We need to incent implementation of these best management practices so that we are not creating new areas of environmental concern and playing catch-up. Through application of lessons learned and financial incentives to enable significant action, we can protect the entire basin while we continue to remediate in environmental areas of concern.

In conclusion, we rely on Great Lakes water quality for all kinds of things in our daily lives. We should ensure that we will have enough clean water for all our needs, whether they are ecological or economic or they are for our own health.

The attention of this standing committee is welcome. The conservation authorities are committed to improving Great Lakes water quality. We look forward to working with you and meeting the commitments of the Great Lakes Water Quality Agreement and, most significantly, participating in implementation actions.

I would like to thank you for the opportunity to submit these comments and I look forward to your questions.

● (1550)

The Chair: Thank you very much, Ms. Fox.

We'll move now to Mr. Don Pearson of the Lower Thames Valley Conservation Authority.

Mr. Don Pearson (General Manager, Lower Thames Valley Conservation Authority): Thank you very much, Mr. Chair, members. Again, I appreciate the opportunity.

My name is Don Pearson and I'm general manager of the Lower Thames Valley Conservation Authority. I have spent nearly 40 years working either with conservation authorities or with our municipal partners directly, including eight years with Conservation Ontario, the umbrella organization. So I am obviously very passionate about the job that we're all interested in accomplishing, and again I appreciate that the committee is taking a look at this most important question.

The committee is aware from previous presentations from conservation authority colleagues about the geographic expanse of the conservation authorities so I won't repeat that. I would like to just add, though, the fact that 90% of Ontario's population currently lives within the conservation authorities' jurisdiction and therefore impacts the Great Lakes. That population is expected to increase by 25% to 30% over the next 25 years. So in addition to some of the catch-up work that's been referenced, we really have to get ahead of the curve in terms of planning to make sure that we're not solving problems at the expense of ignoring the potential for future problems developing.

I think it's important to again understand that the 36 conservation authorities are investing more than $300 million annually into programs that benefit, among other things, water quality, including the Great Lakes habitats, and providing recreation and contributing to human health. And they're doing so by leveraging municipal sources. It's about 40% municipally funded. An additional 40% comes from revenues that are largely self-generated. These can be user fees, to permit fees, to resource management fees, and the remaining 20% is made up by a variety of senior government grants, including the federal government. It often comes in at around 2% to 4% of that figure annually. So it's a shared contribution to that program expenditure, and I think one of value.

Within the Lower Thames Valley Conservation Authority, where I am the manager, we encompass more than about 100,000 people, but it is also Ontario's most productive farmland. I think it's important to realize that this same part of Ontario that accommodates the population is also our prime farmland, and it's also the area where people expect natural heritage and other things to be protected, so it's a challenging job.

In addition to the Thames River, we also have a significant area that drains directly into the north shore of Lake Erie, and we have over 100 kilometres of Great Lakes shoreline, which I think makes us one of the largest jurisdictions directly impacting the Great Lakes.

The Thames River has been recognized, sadly, as the area of greatest contribution to the water quality impairment in the Western Lake Erie Basin. Of course, the Maumee River in Ohio is the largest, responsible for about 80%, but obviously Canada and Ontario have to do their share in terms of reducing the nutrient loads into the western basin. The economic costs are enormous.

I will now turn to the three areas of focus of your study.

The first is the priority locations within the Great Lakes Basin. Obviously, the western basin—declared dead in the 1960s—recovered, but since 2011 annually we've seen expansive algal blooms, and these of course are affecting ecosystems, human health, and the economy for most of the ice-free season, and obviously drinking water, commercial and recreational fisheries, as well as direct contact recreation are impacted by this. Other watersheds, including the Grand River watershed, have been mentioned as having significant input into Lake Erie, and what would apply in the Lower Thames would be applicable in the Grand as well.

We are doing some things under the category of efforts under way to remediate identifiable areas. Many government agencies, municipalities, and the conservation authorities, as well as organizations like the Ontario Soil and Crop Improvement Association, have been promoting best-management practices with the goal of reducing non-point sources of contamination. They've often used funding cobbled together from a variety of sources, including the federal government, but a number of authorities have been able to sustain programs over time, which has allowed the development and retention of the staff expertise and capacity that is necessary to maintain credibility and continuity within the community.

Our authority hasn't been as active in this regard as some other authorities, partly due to the limited financial capacity, but also because it has emphasized flood hazard reduction as a priority program instead.

● (1555)

We are cooperating with neighbouring jurisdictions at the moment, delivering clean water programs and implementing a greening strategy with the Municipality of Chatham-Kent. As an example, municipal funding of $150,000 annually is being leveraged through additional investment into $500,000 in program delivery on the ground. The authority's mechanism has been very effective.

We recently entered into a new partnership arrangement with the Ontario Ministry of Agriculture and Food to address nutrients and sediment loadings to Lake Erie through enhancing our understanding of how phosphorus moves over land, not just the mechanisms but the time of year and the factors that influence its transport, and how those are influenced in turn by various tillage and nutrient application practices. This will support the development and implementation of new approaches for reducing phosphorus from agricultural sources while raising awareness and increasing adoption of environmental farm planning and beneficial management practices among producers. We'll also involve ongoing monitoring and demonstration and evaluation of new technology and practices so that we can ensure effectiveness and value for the investments that are made.

Under the topic of best practices that will facilitate the further remediation of these areas within the Great Lakes Basin, we've certainly learned much about the effectiveness of various best management practices for reducing non-point source pollution. We also understand that voluntary, incentive-based programs aimed mainly at the agricultural community have enjoyed strong landowner participation and afforded the opportunity for cost-sharing with various levels of government.

Within the Thames watershed, but more particularly in the upper basin, programs have been implemented for more than several decades. They have produced local benefits but they have fallen short of the overall goal of improving water quality throughout the system and in the Great Lakes. Partly this is attributable to the changing climate, which has produced more frequent and intensive rainfall events, and to longer exposure of soils to the elements during the shorter duration of snow cover in the period when crop cover is absent. Obviously, again, climate change and the changing weather patterns impact our water quality protection efforts.

We have to our adjust our agricultural practices on a very wide scale to compensate for impacts resulting from changing weather patterns. If voluntary, incentive-based practices are to become more widely adopted, then realistic levels of effort must be applied to ensure that the targets are met.

It can't be overlooked that one of the more critical success factors for influencing change, particularly on the agricultural landscape, is the ability of an organization to develop and maintain relationships, reputations for excellence, and capacity to deliver on-the-ground support and advice. This is often challenging, because many government programs are transient in nature, or they have specific targets and timelines, often without regard for the realities of the funding cycles of other potential partners. This reality of multi-stakeholder efforts has presented a challenge for implementation, and yet it has been made to work by the conservation authorities' ability to coordinate the programs from multiple funding sources while maintaining continuity and stability in program delivery to landowners.

Again, some authorities have been more successful in this regard than others due to a variety of factors, but we can't ignore that on the landscape, population is coincident with municipal ability to pay. A given watershed may be sparsely populated, but it may have the same impact in terms of agricultural sources. Somehow governments have to create mechanisms for equalization of the financial costs of implementing programs in those areas. In other words, it's hard expect 100,000 people to put the same effort forward as 500,000 people on a watershed of comparable size. I think this is something that has to be taken into account in program design; there is a role for governments in terms of creating a level playing field or some kind of equalization payment.

A second critical factor for ensuring that public investment achieves greatest possible value is captured in the idea of co-benefits. Conservation authorities have successfully applied the principle of integrated watershed management in designing and implementing programs in partnership with landowners. We have to recognize that most of the contributing area within the Great Lakes Basin is privately owned, and it happens to be agricultural land. It's imperative that we achieve multiple objectives within this limited area.

Traditional approaches to problems have really been narrowly focused on a specific program or objective. If you have a flooding problem, you build a dam or a channel or a dike.

● (1600)

One minute, Mr. Chair...?

The Chair: Yes.

Mr. Don Pearson: Thank you.

Similarly, if you want forest cover you encourage tree planting. If you want to reduce soil erosion you promote conservation tillage.

In reality, there are multiple benefits produced from each of these examples. Forests and wetlands provide habitat, fuel, and food; moderate temperature; improve infiltration; reduce runoff and therefore flooding; and maintain stream flow and aquatic ecosystems to protect the fishery. If we consider the landscape as a functioning ecosystem, we can undertake projects that realize multiple benefits while maintaining the productive capacity of the land for agriculture.

Thank you, Mr. Chairman, and I too look forward to questions from the members of the committee.

The Chair: Thank you very much, Mr. Pearson.

We're going to move now to our opening round of questions of seven minutes each.

I just want to point out to committee members that on your agenda there was a note that we have a short in camera meeting from 5:25 to 5:30. There are a couple other issues we would like to discuss so we are going to end the open session at 5:20.

We will begin now with our first round of questions, starting with Mr. Sopuck from the Conservatives.

Mr. Robert Sopuck (Dauphin—Swan River—Marquette, CPC): Thank you.

Thank you for the presentations. They were extremely interesting. Coming from an agricultural constituency, I am especially interested in the agricultural situation because the issues are the same across the country and I think that the principles and solutions are fairly similar as well.

My first question, Mr. Murphy, is directed at you. You talked about how in the Bay of Quinte, arsenic was a real issue there, and the implication was that the problem has been remediated. If that is true, how was the arsenic situation dealt with?

Mr. Terry Murphy: The Ontario Minister of the Environment has been working on that issue for probably 20 years. The problem was created by a private company. The company dissolved, disappeared, and the government thankfully stepped in and had to go through all of the environmental assessment processes over the years, provincially and federally. They are now at the point where all of the arsenic will be contained. The filtration of arsenic into the water courses will be stopped. It will not be removed from the site. They are basically containing all of the arsenic on the site.

The problem we have is that some of the arsenic and other contaminants will always be buried within the sediments of the Bay of Quinte. As long as they aren't disturbed and dredged, they are not a problem. We do, through the conservation authority, have all the proper rules and regulations in place to ensure that there is no dredging along the Bay of Quinte shorelines.

● (1605)

Mr. Robert Sopuck: Great, thanks.

In terms of your comments about the Fisheries Act, I would like to set your mind at ease. I am also on the fisheries committee and was heavily involved in the rewriting of the new Fisheries Act. A fellow I'm sure you all know, Ron Bonnett, president of the Canadian Federation of Agriculture, made the point of how absurd the old situation was, where a farmer dug a drainage ditch that automatically became fish habitat even though it wasn't there originally and when that drainage ditch grew in and he wanted to clean the ditch out, like in normal practices, he was subject to enforcement actions under the Fisheries Act, which was clearly ridiculous. Our new act has gotten rid of that. Our strong view is that instead of engaging in ineffective regulatory programing, we are making very direct investments as a government into remediating real issues.

We had people from Hamilton, from the Hamilton harbour area, at one of our meetings. They were asked directly if there was any inadequacy in federal funding—were there any cutbacks and so on?—for the Randle Reef project, which I'm sure you're all familiar with. The gentlemen were quite forthright and said no, we have lots of money from the federal government to do this.

Would you agree, Mr. Murphy, that directing funds to remediating real and pressing environmental issues is a wise use of government resources?

Mr. Terry Murphy: Yes, I do.

My reference to the Fisheries Act, I agree with you, I totally believe that the act was.... I don't think it was a problem with the act, it was a problem with the way the act was being enforced. I think we could have accomplished the same thing by better educating the staff who were using the act, but either way the Fisheries Act is a good tool to help us protect the watersheds.

Mr. Robert Sopuck: Again, my comment on that is that it's an even better tool now because we have the ability to set standards we didn't have before, and the enforcement actions that the government can now take will be much more serious.

Ms. Fox, you talked about non-point source pollution. I know this is a very difficult question and it could require a long answer, but what in a nutshell are the principles when it comes to dealing with non-point source pollution? What do we need to do?

I'm referring to on the ground actions. What do you want to see happen?

Ms. Bonnie Fox: I think I can simplify it to two things. One is knowing the sources for the non-point source pollution in the assessment within the watershed and in doing the modelling so you can see the relative contributions from those different sources. For example, we found in the low water response plan that none of the producers of the nutrients is going to want to do reductions if they don't know what their neighbour is doing. By doing some modelling and assessment and putting some numbers on it, the rural areas will say it's all coming from the municipal point sources. The idea with the watershed-based assessment of the sources, the relative contributions lend themselves to having the discussion at the local level: who's responsible for what, and then what can we do to fix that.

I didn't touch on this in my presentation but by having that kind of an assessment framework within an area, some of our conservation authorities are looking at water quality trading programs. So instead of doing a major investment in municipal infrastructure they can look at getting the reductions and phosphorus through their rural water quality programs.

Mr. Robert Sopuck: That said, the New York City water supply example, which I think has been a very successful program...I heartily endorse that approach.

In terms of direct projects it's funny. I'd like to point out that our government has something called the recreational fisheries conservation partnerships program. Right by Mississauga the Rattray Marsh was remediated using funds from that program. Again I think the angling community is very numerous in the watershed, and many groups there are partnering with them, accessing the $25-million fund from the recreational fisheries conservation partnerships program, which did not exist a year ago. That's brand new money. In the spirit of directing money at real projects that do real things, that might be worth doing.

Mr. Pearson, I was very interested in your presentation, especially the $300 million that is spent annually on water quality in the Great Lakes. All three of you talked about the importance of the nearshore and habitat and wetlands and so on. What is your view on the concept of habitat banking, which has the potential to unleash significant funds from industry to perhaps do some of the habitat work that you would like to see done?

● (1610)

The Chair: Thank you, Mr. Sopuck. We'll have to let Mr. Pearson think about that answer for a possible future round when we get back to him. Your time has expired so we'll come back to that if there's time.

We'll move now to Mr. Choquette.

[*Translation*]

Mr. François Choquette (Drummond, NDP): Thank you, Mr. Chair.

This is a very fast-paced meeting. Mr. Sopuck had some questions and comments I was very interested in. I find that the time has gone very quickly.

I want to mention that March 22—it was practically yesterday—was World Water Day. This international day declared by the UN aims to raise people's awareness of how important fresh water is. The protection of the Great Lakes is very important in our current study.

Before delving deeper into the study on the Great Lakes, I would like to point out that Canada doesn't have a national framework on water or a national water strategy. This is a shortcoming. If we had such a framework—and the NDP is favourable to Canada having one—we could see not only what is happening with the Great Lakes, but also what the situation is in terms of water protection in general.

This was a digression, and I will now come back to our topic of discussion. My first comment—and I am pleased that Mr. Murphy explained it well—is that it's a shame the legislation on fish habitat protection was amended. The legislation itself was not bad, but its application was problematic. It's too bad the Conservatives feel the need to scrap the whole thing, even though there was just one little problem to resolve. Now, unfortunately, all fish are no longer protected. Only certain types of fish are protected, but biodiversity cannot work in isolation. Everything is interrelated.

I am getting to my questions. I was interested in what all three of you had to say, especially when it comes to climate change, which I think is very important to take into consideration in a study of the Great Lakes. All of you talked about how important it was to adapt to climate change. Unless I am mistaken, Ms. Fox, you said that more data on climate change was needed. I think you also said that this data would not come from local authorities, but perhaps more from national authorities. Could you elaborate a bit further on what your needs are and what the federal government could provide you with to help fight climate change and adapt to it? What are your needs in that area?

[*English*]

Ms. Bonnie Fox: That's a good question.

The Great Lakes Water Quality Agreement has a climate change annex, and Conservation Ontario has a representative on that annex. That subcommittee is currently working on pulling together the current information. They're planning on having a webinar and providing a report.

When we talk about accessible data, the challenge has been that the scientists do the studies, but then those of us at the local level don't necessarily have access to the data so that we can run the various models. I believe that the steps are in place for us to have better accessibility and we're working collaboratively together on that.

In terms of specific pieces of information, I don't know how relevant that would be, but certainly we want to know about water levels, changes in ice cover, etc.

[*Translation*]

Mr. François Choquette: Thank you very much.

I will continue in the same vein.

I think you worked on the Green Economy Roadmap for Conservation Authorities in Ontario or a group closely related to you did. This document suggests creating sound partnerships to manage climate change, adapt to it and promote green economy.

Can you tell me more about that? Unless I'm mistaken, your group is involved in the roadmap.

● (1615)

[*English*]

Ms. Bonnie Fox: I apologize, you refer to a world map. I'm not sure to what project you might be referring.

What was the second half of the question around green economy? I was still thinking about the map.

[*Translation*]

Mr. François Choquette: I wanted to know something about green economy, and the question is for all three of you.

It's important to invest in green infrastructure. What would you suggest to the federal government in that regard? Earlier, we talked about climate change and its repercussions on the work you do to improve water quality, be it in the Thames River, the Bay of Quinte or the Great Lakes.

What suggestions do you have for the federal government in terms of green infrastructure?

[*English*]

Ms. Bonnie Fox: Around green infrastructure, our interests are on the watershed level, the watershed basis, where we look at the watershed and have more natural areas, so that when we have these sudden, intense storms, there's more natural infiltration.

The important piece with the highly urbanizing areas is that as the surfaces become more concrete, more impervious, we're having trouble with infiltration of the water when we have these sudden, intense storms. Within the urban context, the green infrastructure, we are looking at urban stormwater low-impact development techniques and different ways of using more green technologies in terms of absorbing that additional water. I think you had someone from the City of Toronto who came and spoke to the committee, and had some examples of that.

A number of our member conservation authorities are experts in this area: the Credit Valley Conservation, Toronto Region Conservation Authority, and Lake Simcoe Region Conservation Authority. They've established a sustainable technologies evaluation program,. They are testing actual low-impact development techniques and green infrastructure techniques in an urban environment for urban environments. That's on the websites. They developed that program through the Great Lakes sustainability fund, so the support of the federal and provincial governments for these activities has been really important to move the technologies forward.

The Chair: Thank you very much.

Mr. Woodworth, for seven minutes.

Mr. Stephen Woodworth (Kitchener Centre, CPC): Thank you very much, Mr. Chair. My thanks to the witnesses for attending here today. There's a lot of food for thought.

I'd like to begin with the historical perspective that you present, Mr. Murphy. I understood you to say that 30 years ago there were 80 areas of concern and that those have now been reduced by 50 to a remaining 30. Is that correct? Do you know, of the remaining 30, how many will likely be delisted within the next five to ten years?

Mr. Terry Murphy: We have a target of three years. We hope to have the Bay of Quinte off the list by 2017.

Mr. Stephen Woodworth: Okay, that's Bay of Quinte. Do you have any knowledge of the wider list?

Mr. Terry Murphy: They're all over the place. Every area of concern is on a different timetable; they're dealing with different problems. Obviously, some are more difficult and bigger. The other areas are on different schedules. I think we have been prompted through the years that the sooner the better.

Mr. Stephen Woodworth: Surely. And of the 80 points that were begun, do you know what the rough proportion is between U.S. and Canada in areas of concern?

● (1620)

Mr. Terry Murphy: With the Bay of Quinte, it's 100% local, provincial, and federal government involvement, no U.S. involvement.

Mr. Stephen Woodworth: But of the 80 targets, how many were Canadian and how many were American? Do you know?

Mr. Terry Murphy: They were all local targets set up by the Bay of Quinte remedial action plan. They are similar targets to those developed with the United States. There's a similar theme through all of the areas.

Mr. Stephen Woodworth: Okay. You expect, then, that this will be completed within the next three years?

Mr. Terry Murphy: That's what we're telling everybody, and we think it's a very realistic target.

Mr. Stephen Woodworth: Have you seen any slowing of momentum in the Bay of Quinte projects in any recent period, or is it still continuing full steam ahead?

Mr. Terry Murphy: No. We're probably getting better involvement from the public. We are getting better-educated municipal governments, and we're still getting full support from provincial and federal agencies.

Mr. Stephen Woodworth: So when you mention possible concerns, you're really looking ahead to that period at the completion of the three years. At this point in time you're satisfied that everyone is pulling their weight?

Mr. Terry Murphy: Yes, based on the economic climate that we're dealing with. The Bay of Quinte area has been very fortunate. Funding from all levels has been adequate to get us where we are, and I think to take us where we're going.

Mr. Stephen Woodworth: Am I correct that the Government of Canada is the co-lead on the Bay of Quinte remedial action plan?

Mr. Terry Murphy: Yes.

Mr. Stephen Woodworth: How important has the Government of Canada's role been as co-lead?

Mr. Terry Murphy: Extremely important. We have access to a lot of the staff expertise.

Mr. Stephen Woodworth: What will be the end result when the Bay of Quinte is delisted? What does that mean for the residents in that area, and the tourists that you mentioned also?

Mr. Terry Murphy: The largest impact will be public relations. I think historically, for the last 25 years, it's been, “Don't talk about the water quality. Don't talk about the situations that exist in the Bay of Quinte.” There were rumours everywhere about the fish being polluted and that you couldn't eat them. All of those are now gone.

Mr. Stephen Woodworth: You can brag about it now.

Mr. Terry Murphy: So now it's time to start bragging, but not to give up. We can't stop. We have to keep going.

Mr. Stephen Woodworth: Thank you.

I have a question for Ms. Fox. I was interested in your mention of targets for the nearshore, and I immediately leapt to the assumption that you were talking about phosphorus targets, but I don't know if that's the case. I'd like to know what, if any, work has been done to come to an appropriate agreement about targets to this point.

Ms. Bonnie Fox: We have a representative on the nutrient management annex subcommittee for the Great Lakes Water Quality Agreement, and they are charged with coming up with the phosphorus targets. They've created a task group around that. I believe our representative on that is from the Grand River Conservation Authority. So coming up with the phosphorus targets is in progress.

I didn't specify phosphorus targets, because perhaps there are other things that need to be targeted to improve conditions in the nearshore. But the immediate priority is certainly phosphorus.

Mr. Stephen Woodworth: Is there a timeline on that work?

Ms. Bonnie Fox: Yes, there is. I believe it's 2018. It is actually specified in the Great Lakes Water Quality Agreement.

Mr. Stephen Woodworth: I'm at least glad to hear the government is alert to it and on the case.

How much time do I have, Mr. Chair?

The Chair: You have a minute and a half.

Mr. Stephen Woodworth: Thank you very much.

I want to go back again to a historical perspective. I'm interested in the distinction between non-point sources and point sources. My general impression is that in the past, point sources were a major concern and that much of that has been eliminated, allowing us to turn our attention to non-point sources.

I wonder if any of the three of you would care to comment on that and give a little explanation?

Mr. Pearson.

Mr. Don Pearson: Thank you.

I think the distinction is important. The point sources were largely accomplished through a regulatory approach. They were often industry or municipal sources, so there was an appetite and ability to create a regulatory framework, and then the technology was applied within that framework to achieve the targets.

The challenge with the non-point sources is that by definition they're so dispersed that a regulatory approach would be neither practical nor very well accepted in my view, so it has been more of a broadcasting approach based on education, demonstration, applied research, and working with landowners, and on spreading the word in that way, if you will, and then hopefully an eventual uptake more broadly by the industry.

● (1625)

Mr. Stephen Woodworth: Am I correct that we've largely overcome the problem of point sources? Or not?

The Chair: Could we have a very quick response?

Mr. Don Pearson: I don't think you can ever say that we've solved it, because as populations grow those point sources will respond with greater loads. We have to manage those loads to maintain them within the target, so we can never ignore them, but I think it's fair to say that we have a handle on them. We need to put the effort into the non-point sources.

The Chair: Thank you.

Thank you, Mr. Woodworth.

We'll go now to Mr. McKay for seven minutes.

Hon. John McKay (Scarborough—Guildwood, Lib.): Thank you, Chair.

Mr. Murphy, you certainly got everyone's attention when you talked about arsenic coming down the system. I was up in Yellowknife a few years ago, as Mr. Bevington will know. Their proposal for dealing with arsenic is to bury it at the bottom of the mine shaft and then turn the whole thing into a giant ice cube and hope that global warming really doesn't take off.

It gave me a feel for how difficult it is to actually contain any significant quantity of arsenic. You may be working very hard at the bottom end of the system down at the Bay of Quinte whereas upstream you have some significant difficulties. Can you elaborate a little on how satisfied you are that this point source of arsenic—which is a big point source—is actually going to be contained?

Mr. Terry Murphy: I wish I had a picture of the whole site, because it's a huge site. We're talking about an area of probably 50 hectares of saturated arsenic soils that have to be removed and contained. Over the years, the provincial government, through the Ministry of the Environment, has done a great job. I don't know what the total cost has been to date, but I'm sure it's $40 million or $50 million. With the cost of removing that arsenic to someplace that could look after it, we probably could never have afforded to do the work in the first place.

The water testing shows that the arsenic coming down the system is basically gone, so I think...I'm very satisfied that the arsenic has been contained already, and by the time the province is done with the project, it's the best that we can hope for. People ask if they can swim in the river, and we don't hesitate to say yes. We advise them not to drink the water, but we say the same thing about every lake in Ontario, so....

Hon. John McKay: Yes. Well, let's hope there's no catastrophic event that just throws out the best laid plans of men and mice.

Mr. Terry Murphy: Yes.

Hon. John McKay: You talked about the federal government staff reductions. That has been an ongoing concern. How will that affect you directly?

Mr. Terry Murphy: For the last 10 years we have partnered with the federal government to deliver the Fisheries Act. The hardest part is that we still want to ensure that the act is used properly to ensure the protection of our waterways in our watersheds. Where we used to have federal staff available for enforcement on major violations, or a biologist available to assist on large situations, such as habitat loss, those staff are no longer available.

Hon. John McKay: You lose enforcement staff and you lose data collection staff, if you will.

Mr. Terry Murphy: Yes.

Hon. John McKay: All right.

I'm given to understand that DFO has reduced 50 positions in Ontario. I'm assuming that you're one or two or three of those positions. Is that correct?

Mr. Terry Murphy: We just lost the last biologist two weeks ago. So, we're basically.... Our biologists do the work and the....

Hon. John McKay: When you say it's our biologist, is that the Government of Ontario's biologist or the conservation authority's?

● (1630)

Mr. Terry Murphy: The conservation authority's. We have our own fisheries biologist on staff.

Hon. John McKay: This do-it-yourself permit business, how does that work? If I'm a farmer and I want water do I just—

Mr. Terry Murphy: —go on the website.

Hon. John McKay: —fill in the blanks and tell them what I think they want to know?

Mr. Terry Murphy: We just had a case under the Fisheries Act where an individual applied to build up a causeway, fill in a causeway, and went to the website. One of the questions is, "Is there any fisheries habitat?" His response was no. We found out after he had a permit that it turns out to be prime pike habitat because it floods every spring and that's where the pike spawn. Those are the things that, when you go to a self-help permit, people filling it out either don't know the proper answer to or they do know that if they fill it out that way, they won't get a permit. I think it's going to open the door for a lot of abuse of the system.

Hon. John McKay: Mr. Pearson, I was just looking at the map of your territory and you know, frankly, my reaction was: well, you're cooked. There's really little or nothing.... By the time the watershed gets down to your neck of the woods, it's filled with whatever it's going to be filled with and there's very little that you, as a small municipality, can actually do about it.

Mr. Don Pearson: Well, I'm not quite that pessimistic. It is challenging but I think we take a fair amount of comfort in the fact that in the upper part of the watershed, the forest cover is a greater percentage, it's a minimum of 9% and as high as 15% in those communities. As you move down the watershed the forest cover depletes to less than 3%. The slope is greater in the upper watershed and so there's greater potential for soil, if it's not properly managed, to move off and into the watercourses.

Once again, I think of necessity the agricultural producers are much more aware of that, and there is a good history of trying to contain that. It really then behooves the producers in the lower watershed, even though they have flatter soils more intensively farmed, to make sure that their contributions aren't being ignored as well. In reality the ability of the lower watershed to contribute, particularly during intensive rainfall events, is just as great as the upper watersheds. So, we have to do our share in the lower part and I think farmers—in fact the population in general—are happier to do their share when they understand it's their share and that everybody else is also doing their share.

Hon. John McKay: Ms. Fox, I was up in Keswick—

The Chair: Mr. McKay, you have eight seconds.

Hon. John McKay: I was up in Keswick and I had a wonderful time.

Some hon. members: Oh, oh!

Ms. Bonnie Fox: Nice time.

Hon. John McKay: I recommend everybody visit there.

Some hon. members: Oh, oh!

The Chair: Thank you, Mr. McKay.

We move now to Mr. Bevington for five minutes, please.

Mr. Dennis Bevington (Western Arctic, NDP): Thanks, Mr. Chair.

Thank you for your presentations here today.

A number of things have come up here. This a pretty rapidly urbanizing area. Is the population of this whole region going up in a dramatic fashion? Does anybody have the data on that?

Ms. Bonnie Fox: I don't know the exact data but around the Greater Golden Horseshoe is a major growth area, Windsor area and Ottawa, or at least it's planned for growth. Windsor is planned for growth; I don't know that it is growing.

Mr. Dennis Bevington: What about taking up farmland? Is there more farmland being taken up all the time or is it pretty well established now what the farmland is?

Mr. Don Pearson: I can respond to that.

Certainly in Ontario the urban boundary was contained in the Greater Golden Horseshoe by the implementation of the greenbelt. That had the unintended consequence of creating growth pressure beyond the greenbelt so certainly those communities of Kitchener-Waterloo, which are outside the greenbelt, are experiencing greater growth pressure, and there's no question there continues to be conversion of farmland.

The urban growth rate in Ontario is equivalent to adding the city of Guelph every year. Most of that growth does occur within the Greater Golden Horseshoe and then north up the Highway 400 corridor, Kitchener-Waterloo to the next extent, and probably the Ottawa area. The reality is that most of the rest of Ontario is pretty static as far as urban growth is concerned. Rural southwestern Ontario, west of the Niagara escarpment, is not.

● (1635)

Mr. Dennis Bevington: So does your planning take into account the future projections for what's going to happen in this area? Are you pretty much on that phase? What are the conservation associations doing in terms of that?

Ms. Bonnie Fox: Yes, I can speak to that.

Briefly, the municipalities are responsible for managing the growth and the land use planning, etc., but in the Greater Golden Horseshoe, there are a few conservation authorities that have done a really good job. Credit Valley Conservation and the Toronto and Region Conservation Authority have actually looked at the projected population growth and what the different land use scenarios are.

So municipalities need to plan out decades in terms of what's coming.

Mr. Dennis Bevington: Are you setting standards for existing operations based on what the future is going to look like?

Say in terms of their ability to enter phosphorus into the systems. Just take that one. Are you saying to people on farmland that we can't afford to have them even do what they're doing today, that they've got to cut back because we know that the growth is going to occur and there is going to be more phosphorus in this area that's going to have to be dealt with?

Mr. Terry Murphy: In the Quinte area we're working with the municipalities. We are working with the planning staff trying to encourage master drainage plans. We are concerned about storm-water and runoff going into the Bay of Quinte and the pickup of phosphorus as it goes in. So I guess the answer partly is yes. We're trying to plan ahead. We don't want each development doing its own plans. We want the cities to have a plan so all developments have to fit into it as they come in.

Mr. Dennis Bevington: If farmland is wetland and farmland is important for preserving non-drainage, or slowing down drainage, why would you support this idea that farmland drainage should not be subject to any kind of oversight? That's what was suggested by my colleague, under the act, that drainage ditches aren't all that important, cleaning them out.... But if you multiply that by 100,000 farms, all doing a little bit to increase their drainage, wouldn't that amount to quite an important problem in your district?

Mr. Terry Murphy: In the Quinte area, we don't have a lot of farm drains.

Mr. Dennis Bevington: Okay, well then in another area.

Mr. Don Pearson: In answer to your question, we have a lot of farm drains. There are more drains in Chatham-Kent than there are in the rest of Ontario combined, and again, a municipal drain in Ontario is a legal concept. The reality is a municipal drain looks like a stream and functions as a stream in many cases, and fish and other organisms don't distinguish whether they're in a municipal drain or a stream. It's part of the ecosystem.

We need to take, as I said earlier, a systems approach, and the old method of saying this is a drain so the Drainage Act applies and this is something else so a different piece of legislation applies, in fact a different agency applies, that underscores the problem. We have a hodgepodge of regulations, layer upon layer upon layer, and I think that really became the breaking point that resulted in things like the Fisheries Act getting yanked.

I would be the first to admit we have an abundance of regulation. What we need is effective regulation based on a very systematic approach, looking at the problem and understanding that we need farm drainage, we need fisheries habitat, we need to prevent phosphorus from being displaced off farmland into the Great Lakes where it's causing.... There is no regulatory planning mechanism that requires that to be done. The Ontario Planning Act doesn't quite get the job done. Conservation authorities have the ability to do watershed planning. There is no ability to implement a watershed plan other than the extent to which you can get others to voluntarily buy in to doing their share of it. The Grand River has an initiative going on right now that is a good example of that.

The Chair: And we've heard from them too.

Thank you.

We'll move now to Mr. Toet, for five minutes.

Mr. Lawrence Toet (Elmwood—Transcona, CPC): Thank you, Mr. Chair, and thank you to our guests. It has been very informative.

I want to start with Mr. Pearson. In your presentation to us, you said that historically much had been learned about the effectiveness of various best management practices for reducing non-point source pollution. I'm just wondering if you could expand on that a little bit. What has been learned through these best management practices, and how has that been applied?

Mr. Don Pearson: We first understood, for example, that the conventional approaches to tillage were not suitable in all soil types. It depended on the soil type, depended on the slope. Fall ploughing with the mouldboard plough was the traditional way these things were done. It left acres exposed, and the areas were free to run off and contribute sediment into the local watercourse, destroy habitat, and move downstream. Of course it also represented a loss of nutrients.

As farming became more intense...because again, 40 years ago there was more livestock and there was more pasturing. You have crop rotations. When you move to a system where you have a corn and beans rotation, you basically have the soil exposed for nine months of the year outside of the growing season. You need to adopt other measures, such as conservation tillage where you leave the plant residue on the surface to help break up the impact of rain and reduce runoff. It also adds tilth to the soil and improves the soil structure.

Of course, farmers are innovators, and new technologies come along. It's a very competitive industry. Their weather-dependent economic margins being what they are, they have to adapt. They have to adapt very carefully to new production techniques. They need basically to understand, I think, how what they are doing impacts or doesn't impact the environment.

It's very much something where farmers need to learn from one another. You need the ability to sort of transfer what you learn in one landscape, in one soil type, in one production technique, to other areas.

● (1640)

Mr. Lawrence Toet: In your statement you said that much has been learned. From that, I would take it that a lot has been taken up by the agricultural community, that they have made a lot of these practical changes to their processes.

Mr. Don Pearson: Yes. I think our challenge is really to take the 20% of producers who are really at the leading edge of the game, transfer what they know to the rest of the community, and make sure it's done to the same standard.

Mr. Lawrence Toet: Mr. Pearson and then Ms. Fox, in your presentations you both talked about incentive funding to incent voluntary activities. Mr. Sopuck touched very briefly in his questioning on the recreational fisheries conservation program that supports these types of local projects. Are you familiar with this program, and do you see that type of program as being a great example of how we can do this, how we can incent this voluntary basis?

Mr. Don Pearson: In answer to the question, it is one approach if the objective is, again, managing or improving fisheries habitat. But if your objective is to reduce phosphorus on a very wide scale across the landscape, then I would assume that the guidelines of that program would restrict its ability to be applied.

I think the second issue has to do with the amount of money that actually needs to be sustained going into this. We at Conservation Ontario a number of years ago had collectively identified an investment of around $50 million a year that would be able to be leveraged but would be necessary to maintain the level of effort that we would need to get conservation tillage, nutrient reduction, and best management practices on that part of the landscape that is really contributing 80% of the problem.

Mr. Lawrence Toet: But this type of program is exactly the type of program you're talking about on the incentive basis.

Mr. Don Pearson: Yes, and certainly programs that would assist the landowner in undertaking a project that had benefits beyond just the return on his investment at the farm gate.

Mr. Lawrence Toet: Ms. Fox, did you want to add to that?

Ms. Bonnie Fox: No, other than to indicate that we are familiar with the program. In 2013 there were 18 projects that were funded in Ontario, and eight of those were projects that conservation authorities submitted to receive funding specific to fisheries habitat improvements.

Mr. Lawrence Toet: The take-up was very good.

The Chair: Thank you.

Monsieur Choquette.

[*Translation*]

Mr. François Choquette: Thank you, Mr. Chair.

I would now like to talk about water levels. You all talked about this, especially Mr. Murphy.

In 2013, the WWF gave the Thames River a very poor score for its flow. The water level is very important for the quality of the water.

A change in the flow or level of water will result in atmospheric warming, which in turn will lead to the thermostratification of the water column and accelerate the consumption of dissolved oxygen by plants and animals. So there would be less oxygen in the water. In addition, a drop in the water level reduces the dilution of chemical pollutants and leads to a decline in nutrients.

My question is for Mr. Pearson, Mr. Murphy or Ms. Fox. How do you think the federal government can improve the level or flow of water?

● (1645)

[*English*]

Mr. Don Pearson: Certainly the issue that you mentioned in the Thames River as being fair to poor for hydrology, according to the study done by WWF, was based on the reality that it is a watershed that has been heavily developed. It's heavily developed for agriculture, so it's been drained. The water and snow runs off very efficiently and that means that in drier seasons, we have lower flow and that's a concern. The way we would address that is by protecting the remaining wetlands and even expanding the remaining wetlands by reforesting, by protecting areas of the landscape that are important for infiltration of water.

Happily over the last number of years, the conservation authorities with the Ontario Ministry of the Environment have been engaged in developing source protection plans and those are identifying areas of the watershed that are very important from the standpoint of protecting groundwater sources and, in turn, impacting the flows. But it's a problem that I think is very widespread and it is one that we need to put more effort into solving.

[*Translation*]

Mr. François Choquette: Mr. Murphy, did you want to add anything about this?

[*English*]

Mr. Terry Murphy: The flow problem in all of the rivers in our watershed this year wasn't a big problem for the public. Last year and the year before it was a major problem, but it's all totally connected to our climate.

In our case, we have 39 dams. Some of those dams are operated for low-flow augmentation, so we actually hold water back up north to let it out slowly in the summer when there's no water in the riverways.

Climate change, the patterns that it's creating...a better understanding of climate change will help us in the future to prepare better. Maybe we need bigger reservoirs for future climate predictions.

[*Translation*]

Mr. François Choquette: Ms. Fox, did you want to add anything?

[*English*]

Ms. Bonnie Fox: Perhaps just to emphasize, that's the reason for one of the priority location areas that I was talking about in terms of natural features in areas that are supporting the Great Lakes and St. Lawrence River ecosystem. That whole relationship between water quality and quantity is a major factor in that it is being a priority attention area.

[*Translation*]

Mr. François Choquette: Thank you very much.

I have another topic I would like to discuss, but it may take up a lot of time. How much time I have left, Mr. Chair?

[*English*]

The Chair: Forty seconds.

[*Translation*]

Mr. François Choquette: So I will skip my turn.

[*English*]

The Chair: Thirty-five....

Voices: Oh, oh!

[*Translation*]

Mr. François Choquette: I do not often skip my turn, but I will leave the rest of my time to my colleague, Mr. Bevington. He can use it during the next question period. He will continue to talk about cumulative effects. What he said was important and is not discussed often enough. This issue is addressed in isolation, and cumulative effects are forgotten.

This is a key aspect that must be taken into consideration. In studies such as the one on the Great Lakes Basin, we must not forget to look into cumulative effects and long-term forecasts. Mr. Bevington is one of the experts on these matters.

[*English*]

The Chair: Okay, thank you very much.

We'll move back to Mr. Woodworth, please.

Mr. Stephen Woodworth: Thank you very much, Mr. Chair.

In looking at this map, I would like to ask you some questions, Mr. Pearson.

It seems to me that the Lower Thames conservation area borders Lake St. Clair. Is that correct?

● (1650)

Mr. Don Pearson: It borders Lake St. Clair as well as Lake Erie. The Thames itself doesn't touch Lake Erie, but the Lower Thames jurisdiction does. The tributaries that flow directly into the north shore are under our jurisdiction as well.

Mr. Stephen Woodworth: I'm told there is a Lake St. Clair Canadian Watershed Coordination Council. Would your agency be a participant?

Mr. Don Pearson: Yes.

Mr. Stephen Woodworth: I'm told also that the Government of Canada is a partner in that council. Is that correct?

Mr. Don Pearson: Correct, yes.

Mr. Stephen Woodworth: I understand that council created the Lake St. Clair Canadian management plan. Are you familiar with that plan?

Mr. Don Pearson: Yes, somewhat.

Mr. Stephen Woodworth: Can you give us a bit of description about that management plan and what impact it's having on Great Lakes water quality?

Mr. Don Pearson: Essentially, in the framework that Environment Canada had developed as part of the Great Lakes Water Quality Agreement, it focused on the Great Lakes, so, for example, there was the lakewide management plan for Lake Erie. There was a similar effort undertaken for lower Lake Huron. And Lake St. Clair, being part of the connecting channel, is neither one or the other of the Great Lakes. It was recognized that Lake St. Clair was a special case, and that the impacts of the watersheds that were draining directly into Lake St. Clair were proportionally greater because of the very small volume within Lake St. Clair.

Mr. Stephen Woodworth: My general impression, just from growing up in southern Ontario, is that Lake St. Clair has been a bit of a difficult case. I almost want to say a basket case environmentally, but that may be unfair.

Can you tell me what improvements, if any, you have seen in Lake St. Clair as a result of that management plan?

Mr. Don Pearson: Again, it's difficult to attribute specific improvements, other than more awareness around the importance of maintaining shoreline vegetation. As you know, the Canadian side of Lake St. Clair is intensively farmed and very heavily drained. But there are very important wetlands associated with Lake St. Clair, and I think it's understood that Lake St. Clair responds very well to maintaining those wetlands.

I'm happy to say that this year one of the consequences of the cold weather is that the ice-fishing season was prolonged on Lake St. Clair, and that the success the anglers have been having on Lake St. Clair has been, apparently, excellent. There's no question there's a good fishery existing within Lake St. Clair.

The water quality again in Lake St. Clair, sadly...if you look at satellite photos at a particular time when a significant runoff event has occurred from the Thames. One that I'm thinking about is from April 2013. About 40% of Lake St. Clair, the plume, the sediment plume from the Thames River was very visible. Again, I use that as an example. Regardless of what we've done, we're not approaching the problem with nearly the intensity or the scale that we need to. In my view, the objective should be to eliminate that sediment plume. The only way we can do that is to make sure we're managing all of the landscape that contributes to Lake St. Clair.

Mr. Stephen Woodworth: I'd like to go back to that, and if I may, I'll pick up with Ms. Fox. There was a suggestion, a good suggestion, I thought, about the necessity to model sources and relative contributions.

Is that being done already? Does it just need to be supercharged? Do we have the capacity? Where do we stand with those efforts?

Ms. Bonnie Fox: I believe—Don, I don't know if you know this—from the source water protection program we have some of the information that we need. I don't know what the status of that kind of modelling is among the conservation authorities. Some have been doing more than others.

Mr. Stephen Woodworth: So maybe I will turn it back to Mr. Pearson, then.

Can you tell us, Mr. Pearson, in your watershed, how that's worked out?

Mr. Don Pearson: Sorry, just to clarify, in terms of the sources of greatest load?

Mr. Stephen Woodworth: That's correct—and the relative sources and the identification of sources. Is your conservation authority able to...? Are you working on that?

Mr. Don Pearson: We are working on it. The funding that I referred to earlier from the Ontario Ministry of Environment is intended to help us fine-tune it. We know that certain areas.... For example, the contributing area to Rondeau Bay has been studied extensively in the past, and it's a combination of the soil type and the slope. We know that this area in general is a very high contributor into Rondeau Bay. We can basically extrapolate that to other similar soil types with similar slopes.

The characteristics are that there is a significant slope from what's called the ridge down into Lake Erie, and so virtually any practice that is aimed at conservation tillage and reducing the rate of runoff is equally applicable. All of those areas would be contributing equally.

● (1655)

The Chair: Thank you.

Thank you, Mr. Woodworth.

We'll go back to Mr. Bevington.

Mr. Bevington, because of Mr. Choquette's extreme generosity, rather than five minutes, you have four minutes and 59 seconds.

Mr. Dennis Bevington: Thank you, Mr. Chair, for your careful attention to the clock.

I have a question for Mr. Murphy.

Are you dealing with arsenic trioxide in this?

Mr. Terry Murphy: I'm not a chemist. All I know is that it's not the good kind; it's quite toxic.

Mr. Dennis Bevington: It's very toxic. It's one of the more toxic substances known to man.

Mr. Terry Murphy: Yes.

Mr. Dennis Bevington: If it's the same thing that's in the Yellowknife mine, I wish you well with your job of getting it out of the soil. It's really quite a bad substance, and every effort should be made to keep it out of the river system. It's absolutely....

Mr. Terry Murphy: The system that the Ministry of the Environment has put in place includes a series of waterproof barriers along the river and pipes that intercept any water that does get through and takes it back to the plant that takes the arsenic out. We're quite satisfied that they've done a great job in their plans and that it's going to work.

Mr. Dennis Bevington: Yes. It seems to be that the phosphorus is the issue.

Have any of you had any discussions about polluter pay principles with respect to the phosphorus issue?

Mr. Terry Murphy: Yes, with respect to the incentive idea and the paying for phosphorus, there's been a lot of talk about agriculture. In my area, the agricultural community has been totally cooperative. They've spent millions of dollars on their own to create buffers.

We discussed earlier one of the problems we have. We had one case in our watershed involving a stream that was close to a kilometre long. We're trying to convince the farmer to create a buffer zone that's 15 to 30 metres wide. He's taking several hectares out of production, and that land is worth a lot of money. There is no incentive to encourage this person to protect that land.

Mr. Dennis Bevington: Ms. Fox and Mr. Pearson, what's the general consensus in the region on polluter pay?

Mr. Don Pearson: When it comes to agriculture, the tradition has been to try to educate, to incent, to work with landowners. The reluctance to regulate or to really quantify this polluter pay idea is that you would have to know precisely who is contributing what. The nature of phosphorus from agriculture is that it's insidious; it's a small amount from the entire landscape. It is extremely difficult to establish, for purposes of determining who is financially responsible, who has actually contributed that phosphorus.

Now, we do have techniques for tagging the phosphorus and following its migration through the system, but that approach has generally not been favoured. There's certainly a legitimate argument that excess phosphorus moving out of the farm system should be the responsibility of the producer. That is an approach that would be up to governments to determine.

There would obviously be significant pushback from the farm community. It seems, then, that if that's an added cost to production, which many industries have been forced.... The trick is that in agriculture, as price takers they're competing in an international market in which other jurisdictions are in effect financially supporting theirs.

Mr. Dennis Bevington: It's the very argument we have for all pollution.

Mr. Don Pearson: It's a legitimate question.

Mr. Dennis Bevington: It's a lame argument everywhere.

Ms. Fox?

Ms. Bonnie Fox: The only thing that comes to my mind in terms of polluter pay is in the context of point sources.

Mr. Dennis Bevington: So you haven't heard of that—

Ms. Bonnie Fox: I haven't personally been involved in any conversations concerning polluter pay for non-point source or for agriculture, at any policy table, so I don't have anything to contribute.

● (1700)

Mr. Dennis Bevington: So we have a problem and haven't been able to solve it in your area. We have Lake Erie now up to levels of phosphorus that are turning it into a dead lake. There's a huge fisheries loss involved, I'm sure, with a huge cost to the economy in some ways, and yet the volunteer incentive method is not producing the results you need.

Is that correct?

Mr. Don Pearson: To date, you're absolutely correct.

Mr. Dennis Bevington: If it doesn't work, then you have to try something else. Is that not the case?

Mr. Don Pearson: It certainly would be my view that once targets are established from a scientific standpoint to say that for this landscape we need to reduce contributions by *x* thousand tonnes per year, then there is the possibility of being able to move toward regulating that amount and requiring producers to meet the target.

The trick always becomes how far the regulation goes. Again, every producer has a different circumstance, a different landscape. So I think the idea of marrying a regulated target to a financial incentive has some merit.

The Chair: Thank you very much.

Thank you, Mr. Bevington.

We move now to Mr. Sopuck for five minutes.

Mr. Robert Sopuck: Thank you.

I think the last discussion certainly illustrates the difference between our Conservative point of view and the way the NDP operates. Polluter pay is the first option on the other side, whereas we believe in working with producers by the provision of incentives.

Mr. Murphy, I was very intrigued by your example of the kilometre-long stream and the farmer being willing to provide a buffer zone at his own cost. I think that is a measure of the attitude of the farm community. Working with them is far better than working against them.

I'm going to give Mr. Pearson an opportunity to answer the question I asked earlier regarding habitat banking. Is that a kind of program that you could see working in the Great Lakes watershed?

Mr. Don Pearson: I think there would be opportunities to do a program such as that. Obviously, the downside of such a program is that it can be perceived as your simply licensing somebody to destroy something, with a payment that will then contribute to recreating it elsewhere. The notion that you can actually recreate what is lost has some difficulty; in many cases a high-quality habitat cannot be recreated.

There is merit, however, to the idea that we could do a better job by doing a restoration or remediation project on a larger scale—by pooling, if you will, resources that come from the consequence. I would be cautious about saying that this is a solution, but I think there are cases in which it could be applicable.

Mr. Robert Sopuck: That's okay, except that all of you discussed urban growth and urban sprawl in the area, so there's going to be landscape change going on no matter what. In Alberta right now, in some of the fast-growing cities...Alberta has a major wetland mitigation program whereby real estate developers are required to create a fund that is now going into farmers' pockets to recreate wetlands.

I agree with you that Carolinian forests are extremely difficult to recreate. Wetlands are easy to bring back; they really are. Of course, I'm familiar with the prairie wetlands situation. Don't you think there's more hope for the idea of habitat banking, given that this urban development is going to happen regardless?

Mr. Don Pearson: Well, certainly, if one looked at the inevitability of urban development and decided that in addition to the other things that urban growth is required to pay it should also contribute to further environmental enhancements.... I think Bonnie indicated that we're approaching that through more of a low-impact development kind of scenario, whereby the developer would look at maintaining the hydrological characteristics of the land, after development occurs, and maintaining habitat characteristics and other such things within the area they're involved with.

I think our experience with having the developers, in effect, be taxed—and effectively that's what would happen, because the money would then be pooled and then moved to do remediation in another area.... Obviously, this would provoke a political discussion, and I would anticipate significant pushback on it.

Mr. Robert Sopuck: This is the kind of tax that even a Conservative would like.

Mr. Pearson, in terms of Lake Erie, I'd like to zero in on the fisheries for a minute. When Lake Erie was dead those 20 or 30 years ago, were all the fisheries essentially gone?

● (1705)

Mr. Don Pearson: No, they weren't.

Lake Erie is really considered to be physically three different lakes. The western basin is quite shallow, the central basin, deeper, and then the eastern basin, quite deep. They all behave differently in terms of the circulation patterns and so on.

The western basin is extremely vulnerable to the impact of phosphorus. Algae blooms, in addition to being toxic, eliminate oxygen within the water column and the fish move elsewhere.

It is the most productive lake. From the standpoint of commercial fisheries, more pounds of fish are harvested out of Lake Erie than out of all the other lakes put together, but the reality is, for parts of the year, there are very unfavourable conditions for fish survival, let alone fish production, in western Lake Erie.

Mr. Robert Sopuck: The parallels with Lake Winnipeg are almost exact, because it's in a similar stressed state, but for the walleye fishery they're seeing fishing there now like they've never ever seen.

In terms of Lake Erie, has there ever been fish winterkill?

Mr. Don Pearson: That's outside of my area of specific knowledge, so I can't tell you that.

Mr. Robert Sopuck: Okay.

That's it. Thank you.

The Chair: Thank you, Mr. Sopuck.

We move now to Mr. Toet, please, for five minutes.

Mr. Lawrence Toet: Thank you, Mr. Chair.

I basically have one question and then I'll pass it on to Mr. Woodworth.

The Chair: Committee members, can we have your attention, please?

Mr. Lawrence Toet: Ms. Fox, you talked about green infrastructure and about having more natural areas to work for filtration on the storm runoff systems, and you actually brought up the example that we had here from Toronto and some of the work that they've done. We also had it when we did our national conservation plan. We had witnesses and even developers talking about the fact that there actually is a real attraction to those areas for homeowners. So it goes back to the question of the incentive for the additional cost of living there. People are actually willing to pay that to live close to those areas. Is that something you're also seeing translating out into your areas?

Ms. Fox, you can answer, but it's also open to the rest of the panel. Are you seeing that people really desire that and are actually willing to pay additional for that?

Ms. Bonnie Fox: Just anecdotally, people are more willing to pay for properties that are bordering on conservation areas, etc.

Mr. Terry Murphy: We're working on a project right now. At our office we have a fair-sized parking area that we want to redo in pervious pavement, and we want to use it as an example for developers. We can prove that using the pervious pavement, which is a lot more expensive, may negate the need for stormwater ponds, because you're not necessarily taking away the whole drainage area. So that's one example we're getting a lot of interest in.

It's unfortunate that everything that's really good for the environment costs a lot. Everything that we buy that's really good and works well is more expensive than the stuff that's not the best for the environment. When pavement costs $30 a yard and the cost of this pervious material is $80 a yard, that's a hard sell, but we are getting a lot of interest, and we hope that it will be a marketing tool for developers in the future.

Mr. Lawrence Toet: It's actually interesting that you mention that, though, because I know in Winnipeg there have been some regulatory changes so that as far as retention in parking areas goes, period, rather than having water going strictly to storm drains, you actually have to be able to hold a certain amount of volume that can be lost naturally rather than going through a storm system.

Mr. Terry Murphy: That's one of the rules we have in place for the Bay of Quinte cleanup. We're working with the municipalities on that program, and we have funding from the Ministry of the Environment to encourage those programs.

Mr. Lawrence Toet: Thank you.

The Chair: Mr. Woodworth.

Mr. Stephen Woodworth: Thank you very much.

I'd like to ask about something that we're not really hitting head-on. It flows from the discussion we had about western Lake Erie particularly, and that is something called the Great Lakes nutrient initiative.

My understanding is that in December 2012, the Government of Canada dedicated some $16 million specifically to address the kinds of problems we've heard about today and at other times—the complex problems of recurrent toxic and nuisance algae, the nearshore water quality problem, the ecosystem health of the Great Lakes—and that this money was intended to advance the scientific research needed to understand and address this.

Maybe I'll start with you, Mr. Murphy. Could you tell me whether you are familiar with that initiative, and how it stacks up in your eyes so far?

● (1710)

Mr. Terry Murphy: I didn't go into detail on what was involved in those 80 recommendations, but the 80 topics that we had to address were nearshore habitats for fish. A lot of fish spawn on the nearshores. We're talking about the nearshore habitat. What type of habitat is growing on the nearshores? Was there wetland improvement? A lot of those things all contribute to nutrient loading—algae blooms, and throw in the climate change and throw in the zebra mussels to make it a lot more complicated. But we have received funding and we have done a lot of research.

Prior to the Bay of Quinte being identified as a remedial action plan area, there was a project called Project Quinte. It was funded by the federal government, working with the provincial government, to start monitoring. This was prior to it being on the hot list. When you go back that far and look at what we've accomplished, and take the money that you're talking about, yes, it's definitely helped. It's helped us do what we had to do.

Mr. Stephen Woodworth: Have you been able to fund some of the research—

The Chair: Sorry, your time is up. I know you only had the last part of Mr. Toet's time, but your time is up.

We'll move now to Mr. McKay.

Hon. John McKay: Plus eight seconds....

Voices: Oh, oh!

Hon. John McKay: Back to Keswick.

I was in Keswick, and, as you know, it's the Lake Simcoe—

Voices: Oh, oh!

Hon. John McKay: I'm recommending it to you, folks.

Voices: Oh, oh!

Hon. John McKay: Yes, I recommend a visit.

As you know, it's in the Lake Simcoe watershed and it feeds the Holland Marsh. The local councillor there was telling me that the algae bloom in Lake Simcoe is not so much caused by the agricultural productions, it's actually caused by the urban spread of Barrie, and down in Bradford and that sort of area.

Given what we apparently know, why is that? That's all relatively new development. Why is it the Government of Ontario, in particular, isn't a bit more hard-wired about this perpetual urban spread?

Ms. Bonnie Fox: I think I would refer you to the Lake Simcoe Region Conservation Authority, and to what their modelling is showing in terms of what the relative contributions are between the urban sources and the agricultural sources, and find out what they say.

I just find that surprising. I don't know, though.

Hon. John McKay: I found it surprising as well.

Ms. Bonnie Fox: I don't know what the answer is for sure, which is why I'm suggesting—

Hon. John McKay: —deferring....

Yes, you're dodging.

Hon. John McKay: Mr. Murphy.

Mr. Terry Murphy: With the Bay of Quinte area, we used funding to do the studies, and we did find out....

Good agricultural practice knows that if they use...I think everybody thinks if you put five pounds on per acre, that's great, why not use ten and make it twice as good? Well, it doesn't work that way. They now have modern equipment that tells them when they're using too much. When they do a good job, the crops are better and they don't have as much runoff as they used to have.

We did testing on the developed areas where there were manicured lawns. The runoff on those areas was far worse—

Mr. John McKay: Dramatically different....

Mr. Ted Murphy: —than the agricultural areas. But going back a couple of years, Conservation Ontario, working with the ministries... better legislation on the chemical uses, fertilizers on lawns, everything, now we're seeing an improvement.

Hon. John McKay: Your 39 dams, I have a recreational property which feeds into the Trent-Severn Waterway, which is not precisely close to yours, and I've been rather surprised to learn how crude the management is of those dams. It's log in, log out. The data by which MNR in particular makes decisions, and maybe it's you who makes the decisions, is generated from volunteers—George going up to the local lake and saying, "Yes, it looks a little high, Fred".

Are we much better than that?

● (1715)

Mr. Terry Murphy: We're perfect in our watershed.

Hon. John McKay: Oh, is that right?

Mr. Terry Murphy: Yes.

Voices: Oh, oh!

Mr. Terry Murphy: We haven't got to that point. We have a staff, a well-trained staff, and we have computer modelling that we use to tell us when to pull logs. We work with all the cottage associations also. They're worried about water levels now, a lot of them for the wrong reasons. A lot of them it's because they hit their prop on the rock, not because of the shorelines or whatever.

But, no, we do have a system in place to manage all the dams.

The one problem we do have, however, is for the 39 dams that we own, there are another 39 dams we don't own. They're privately owned, and nobody has any legislation over how those private people manage their dams. We can step in when it comes to what they're doing with water levels, but if a dam is falling apart we can't do anything about it. The province's hands are sort of tied. If you buy a piece of property and find out it's got a dam that goes with the deed, and it's going to cost you $200,000 to do a study and fix it, you're probably not going to do anything.

Hon. John McKay: Yes. You're going to let it fall apart.

In your relationship with the cottage owners' associations, do you get them to stop this flat runoff and build up the weeds and the stuff in front of their cottages? It used to be fashionable to clear-cut your property right down to the edge of the lake.

Mr. Terry Murphy: Number one on our agenda is education on buffer zones. The big thing we promote is that a buffer zone does not have to be a tree that's 10 feet high so that you can't see the water. A good buffer zone can be ground cover with good root systems. It could be a rock garden, even, if it has the proper root system. We're having very good luck with all the cottage associations. They patrol their own systems. They report violations. We work with I think 20 different associations and probably involve over 1,000 volunteers.

Hon. John McKay: Thank you.

The Chair: Thank you, Mr. McKay. We gave you well over your 5:08.

Thank you to our witnesses for being here today and contributing to our study on Great Lakes water quality.

We will now suspend for two minutes and reconvene in camera.

[*Proceedings continue in camera*]