

HANSARD

NOVA SCOTIA HOUSE OF ASSEMBLY

COMMITTEE

ON

PUBLIC ACCOUNTS

Wednesday, May 11, 2011

LEGISLATIVE CHAMBER

**Department of Environment
Nova Scotia Water Strategy**

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Public Accounts Committee

Ms. Diana Whalen, Chairman
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Hon. Keith Colwell
Mr. Chuck Porter
Mr. Allan MacMaster

[Ms. Vicki Conrad replaced Ms. Michele Raymond]
[Hon. Christopher d'Entremont replaced Mr. Chuck Porter]

In Attendance:

Mrs. Darlene Henry
Legislative Committee Clerk

Mr. Terry Spicer
Assistant Auditor General

Mr. Gordon Hebb
Chief Legislative Counsel

WITNESSES

Department of Environment

Ms. Sara Jane Snook, Deputy Minister
Mr. Bavid Briggins, Water and Wastewater Branch
Mr. Jason Dauphinee-Muise, Manager, Water Program Service



House of Assembly
Nova Scotia

HALIFAX, WEDNESDAY, MAY 11, 2011

STANDING COMMITTEE ON PUBLIC ACCOUNTS

9:00 A.M.

CHAIRMAN

Ms. Diana Whalen

VICE-CHAIRMAN

Mr. Howard Epstein

MADAM CHAIRMAN: Good morning, I'll call the meeting to order. It's just 9:00 a.m. now, and this morning the Public Accounts Committee is hearing from witnesses from the Department of Environment, and we'll be looking at the Environmental Monitoring and Compliance Division. We're looking at the water program.

I'd like to begin, as we usually do, with an introduction of our members.

[The committee members introduced themselves.]

MADAM CHAIRMAN: As we're going to begin this morning, I'm going to turn it over to Ms. Sara Jane Snook who will speak.

I would like to welcome you, Sara Jane, I know this is your first time here at Public Accounts and that you are a new deputy minister with the government. We welcome you and I hope everything's going very well. We're looking forward to hearing from you today.

MS. SARA JANE SNOOK: Thank you, Diana. I am delighted to be here today and, yes, I am relatively new in the job. I've been there a little over three months, but it's a delightful department to be part of and I'm very proud to be here today to present the water strategy.

We're here to talk about Water for Life: Nova Scotia's Water Resource Management Strategy. Our province has more than 13,000 kilometres of coastline and an abundance of lakes, rivers, and wetlands. We are fortunate when it comes to water, but it isn't a resource we can take for granted. Like all Nova Scotians, we care about our water, and we want to ensure it is safe, well protected, and properly used. Water is not an unlimited resource, it needs careful attention and management, which is the focus of our water strategy.

Nova Scotia's strategy for managing drinking water has been in place since 2002. The Drinking Water Strategy has resulted in upgrades to water treatment facilities, strengthened standards for water well construction, and even greater protection of municipal water supplies. A recent C. D. Howe Institute report by Steve Hrudehy, one of Canada's leading drinking water experts, credits Nova Scotia for its progress regarding safe drinking water and the quality of Nova Scotia Environment's drinking water program.

Drinking water is just one of the ways water is essential to our daily lives. We need effective tools and strategies for managing all of our provincial water resources. The Environment Act designates Nova Scotia Environment as the lead government agency to manage and allocate Nova Scotia's water resources.

Inspectors from our Environmental Monitoring and Compliance Division monitor, inspect, and enforce all approvals issued by Nova Scotia Environment related to water. The department issues approvals to anyone wishing to alter a water course, for example, by installing a culvert or bridge; we also issue approvals to facilities that provide public drinking water, such as municipal water supplies; and we administer approvals related to the protection of our water resources such as those to industrial facilities and waste water treatment plants.

During the last fiscal year inspectors from our Environmental Monitoring and Compliance Division completed 3,643 inspections related to the protection of water resources - this accounted for 42 per cent of our inspections last year. In addition to the EMC division, Nova Scotia Environment has a dedicated Water and Wastewater Branch, with 19 staff and an annual operating budget of over \$2 million.

Government recognizes that water is essential to our health, our environment, and our economy. We are proud that with the launch of the Water For Life last December, Nova Scotia met its 2010 Environmental Goals and Sustainable Prosperity Act commitment to develop a Water Resource Management Strategy. The water strategy also meets the commitment of the Canadian Council of Ministers of the Environment Strategic Directions for Water, and supports the Council of the Federation Water Charter, which all Premiers agreed to in 2010.

The Water for Life Strategy will guide how we manage all of our water resources in ways that will benefit all Nova Scotians. This strategy is the result of extensive

consultation with individuals, community and environmental groups, industry, the Mi'kmaq, municipalities and other government departments.

Water for Life is an integrated approach. This 10-year plan provides a framework for today and into the future. In total, the strategy contains 29 actions and these actions fall under three categories: those that help us better understand the quality and quantity of our water; those that help us to protect the quality and quantity of our water; and those that help us engage others in caring about our water.

The 10-year water strategy also divides these actions by timeline. There are actions for today, which will be carried out within one to three years and the actions for tomorrow, which will be carried out within three to ten years. We are pleased to say that after only four months since its launch, some of the strategy's initiatives are already underway or even complete. We've provided grants and resources to universities like Dalhousie and Saint Mary's to develop water monitoring projects that will benefit all Nova Scotians. We launched the Water Portal, a comprehensive Web site that provides user-friendly on-line water information and resources. We're also working with the environmental groups like Clean Nova Scotia and the Ecology Action Centre that are monitoring and educating Nova Scotians about ground water and this is just the beginning.

Water for Life secures Nova Scotia's role as a leader in water resource management in Atlantic Canada and across the country. We are proud of Nova Scotia's water strategy and we are pleased to be moving ahead with its implementation. Thank you very much.

MADAM CHAIRMAN: Thank you very much, Ms. Snook. I would like to mention that we have been joined by Mr. Skabar and Mr. MacMaster, welcome. For the first 20 minutes we will begin with the Liberal caucus. Mr. Colwell.

HON. KEITH COLWELL: Welcome and it's nice to finally meet the new deputy minister. You are, indeed, in a very special department and a department that doesn't get a lot of credit for the work you do. I understand exactly what you do and it has been my pleasure to work with your department and some of your staff over the last several years as a critic. I'm no longer critic for the Department of Environment, but it was really a pleasure working with them. You've got a great group of people working there.

Just a few questions I have to start off here. In the new strategy there doesn't seem to be really any firm or hard targets in the strategy for government to meet. Why didn't the government put goals and dates in place to ensure the strategy outlines were met?

MS. SNOOK: The strategy is a framework to carry us forward for the next 10 years and we have 29 action items in the strategy that will take place over that time, but we feel that's the appropriate way to move the province forward.

MR. COLWELL: Have you any intentions of putting and enshrining any of the targets or any of the things that you put in place in legislation so that they're firm down the road? I realize it takes time to develop all these plans, but to really ensure that indeed our water resources are well protected.

MS. SNOOK: Water resources are the priority of the department; they have been in our history and will be in the future going forward and we try and manage them in a way that we think benefits all Nova Scotians. Perhaps in the future some will be put in legislation, but currently we feel we have the right approach with the strategy going forward.

MR. COLWELL: The other thing is, in Bridgewater it was on the news today about potentially opening a new mine. I don't see anything wrong with opening mines because it does create jobs for people, but the Town of Bridgewater is concerned about the watershed area. What involvement would the Department of Environment have with that, a review of that? What's the process it would go through to ensure that the watershed will be protected?

MS. SNOOK: Mines do have an approval process within the government currently and we would work in concert with other departments that have responsibility - like the Department of Natural Resources - to review any plans for mines in general and specifically those that would affect any watershed development would be carefully scrutinized in the department. We have an environmental assessment process and also industrial approval process that both would likely be impacted.

MR. COLWELL: In that case, where they're going to re-open a mine that was there, would it go through a typical, complete environmental review - in particular water in this case or whatever else it may be - because, as far as I know, any time there is a gold mine there's arsenic and arsenic gets in the water. I'm going to ask you some questions on that. In my own area there was a problem with arsenic as a result of a gold mine from years and years ago. Would the process be the same for re-opening the mine or would it be a new process that would have to start to go through the mine?

MS. SNOOK: I'd like to give David Briggins a chance to speak as well. I don't know if my colleagues got properly introduced, but this is David Briggins, who heads up our Water and Wastewater Branch. He knows that situation specifically, so perhaps you'd like to add something.

MR. DAVID BRIGGINS: Yes, we do have a good process in place to deal with that specific issue and others that come up in municipal water supply areas, which is the case here. Each municipal water supply is required to have a Source Water Protection Plan, and there is a committee established that has representatives from the municipality, from different levels of government, different government departments, and they work together to address issues that come up within the watershed that relate to the drinking water supply. So in addition to the processes that the deputy talked about, with approvals through

different departments, we also have a very open, transparent process. Others from the community are invited to attend those meetings and issues are discussed and dealt with.

I know they have been dealing with this one - it's not a new issue, they've dealt with this in the past and will continue to do so, moving ahead.

MR. COLWELL: Specifically, my question was would you go through the same environmental process now, since it was a mine before? Exactly what process will this go through, as far as the department is concerned, besides what the committee would do or the municipality would do? What specifically does the department do to ensure that, as best you can of course, there won't be an adverse effect on the water?

MR. BRIGGINS: Well, as I mentioned, we work through the Source Water Protection Committee, and then our department would be involved, itself, through our own approval process - and I will let my colleague talk about that process.

MR. JASON DAUPHINEE-MUISE: The first thing we would look at is if that facility was currently under approval, and if they did not currently have an approval to do that mining operation, they would be required to get another approval. For me, we move forward from that point - if they do have a current approval, that approval can be reviewed based on the current standards that are being used now.

MR. COLWELL: So basically what you would do is you'd look at what was there in the past, how old it is of course, the approval, and if it does meet the current standards today - and if it was passed previously, is there a deadline on those approvals, like for so long it can operate the mine or, after it shuts down, before you have to apply for them again?

MR. DAUPHINEE-MUISE: For Nova Scotia Environment, typically the length of our approvals is for 10 years.

MR. COLWELL: Yes, so that would give you considerable protection, especially if the thing hadn't been active for that time - and even if it was, do you have to go to re-approval after the 10 years?

MR. DAUPHINEE-MUISE: Yes.

MR. COLWELL: And if you did re-approval on it, would it be the new standards they would have to go to or the standards they originally got the approval on?

MR. DAUPHINEE-MUISE: It would be the new standards.

MR. COLWELL: Again, and I'm talking about arsenic, and I mentioned that earlier in the Montague area, the Montague Mines area, of course, there are some old mines there

all over the place and a lot of the homes have arsenic in their wells. Of course you know what kind of problems that creates - is there any monitoring of that situation in that particular area, to see if it's getting worse or better?

MS. SNOOK: I can't speak to that particular area, although David may want to say something after I do.

Nova Scotia has a problem with arsenic in their water pretty much everywhere in the province because it's naturally occurring and then specific areas, sometimes, that have been impacted by other activities, and the department does try and monitor them, depending on complaints or what the water is being used for in those areas.

Maybe, Dave, if you'd like to add something to that, would you?

MR. BRIGGINS: Because it is a naturally occurring problem, there's not a lot we can do to actually change that, so we don't have specific programs that go in and look at a specific area. We tend to focus our efforts more on education, awareness, making sure people have properly constructed wells and that they are aware of the locations in the province where there may be a higher risk of encountering arsenic in their well.

We have brochures and fact sheets on what people can do if they do have arsenic and, in fact, in your package that you received there is an example of one of those types of brochures. But we don't go around testing wells in various parts of the province because it's a naturally occurring contaminant and there's not a whole lot we can do about it. It doesn't tend to go up or down; if it's there, it's there.

MR. COLWELL: Do you have any input into areas like this, because it is a serious health risk, of course, as everyone knows. In areas like the Montague Mines area there are not a lot of houses there and probably the reason there are not a lot of houses there is because of arsenic, and there's no city water supply. Is there any input that the Department of Environment would have on another municipality, any impact or input that the municipality would have, or the department would have, on that supply of clean drinking water - because there is a requirement in the province for clean drinking water, isn't there?

MR. BRIGGINS: Yes, we have a requirement for municipal supplies and other public drinking water supplies that they must meet the Guidelines for Canadian Drinking Water Quality. So those are right in our legislation and, of course, arsenic would be a health-based parameter that has a guideline. For private well owners, we don't have a requirement - we often suggest and recommend that they do meet the Canadian drinking water guidelines, but there's no regulation that requires that.

So, to answer your question, we do work with our municipal supply owners to make sure that they're aware of some of the issues and health concerns with the water, but really it's a municipal decision whether they decide to construct the new water supply or

extend the services to a certain area. But we're certainly there to help provide information that we may have that would be of assistance to them.

MR. COLWELL: I realize it is a problem - and the other problem I run into every now and then is somebody has salt in their well because of the Department of Transportation and Infrastructure Renewal salting. It is usually as a result of the well not being properly constructed, or it's an old well, or too close to the road, and in some cases maybe a little too much salt down - but who can say it was or not? - because of the driving conditions.

Does the Department of Transportation and Infrastructure Renewal approach the Department of Environment if they get a complaint from somebody who says they have salt in their well - do they do any testing, or is that the responsibility of the individual?

MR. BRIGGINS: I can speak to that one because I used to, in my earlier days in the department - my background is in hydrogeology and groundwater - I used to go out and investigate a lot of these well-contamination problems from road salting. At that time we worked very closely with the Department of Transportation. Now they have their own environmental staff, which includes a hydrogeologist, who look into these types of situations. We provide information to them that we have on wells and water quality in our databases and we work closely together with the staff from TIR.

MR. COLWELL: Would it typically - it has always struck me, and I just really want information on this, if somebody had a proper water test done on their well and it didn't show - like years ago - a high salt content and then it did show it later, would that help the individual when it comes to dealing with the Department of Transportation and Infrastructure Renewal to have the problem resolved?

MR. BRIGGINS: Yes, any background information and water test results are always helpful in any investigation so you can determine if the problem is getting worse or better over time. Certainly that would be of great assistance to whoever's well has been impacted, if they have that information to provide to the Department of Transportation and Infrastructure Renewal when they're investigating.

MR. COLWELL: Yes, unfortunately, people don't seem to like to test their water, I don't know why but they don't, I guess maybe - and the cost isn't that prohibitive really when you look at how important it is to your health.

So, back to the Bridgewater situation - the process is, and it would go to a full consultation through this committee, and then if it went through that process would it then come back to the Department of Environment to review your environmental assessment on it to see if it's okay? Would the Department of Environment do that first? If the company made a proper application - how does that work? Does the department work first, or the committee work first, or do they work hand in hand?

MR. BRIGGINS: Basically they go in parallel, the department still has to go through our processes as required in our legislation, but we also, at the same time, work through the Source Water Protection Committee to address concerns and issues. They are really going in parallel, so that each process can be informed by the other - it's a parallel process.

MR. COLWELL: In that process, would they do baseline tests on water in the immediate area? Would that be part of the requirement or would the individuals who own the homes or properties around there have to do those tests prior to the gold mine going in, or would the company be responsible for it?

MR. BRIGGINS: Again, that's usually a requirement for the company - and my colleague could probably address in more detail what we would require as part of the approval process.

MR. DAUPHINEE-MUISE: Its very site specific with what would be required in the approval conditions with respect to the gold mine. If the community was concerned and raised enough concerns and it identified in the environmental assessment and approval process that this was a concern that needed to be addressed, then a site-specific condition could be added to the approval that would require monitoring from the company's perspective. There may be no concerns based on how the process is developed and everything else along the way, but we'd have to wait for those studies before any of the processing would begin to determine what would that site-specific condition look like in the approval itself.

MR. COLWELL: So is there a requirement to test wells though, in the immediate area before anything starts so you have a baseline to go with?

MS. SNOOK: I was just going to say in general any industrial activity, the department can put whatever terms and conditions that they think are appropriate on that approval. Normally, when a new industrial activity is starting up, we would require that baseline information to be taken during the environmental assessment process to help in the decision making, but most definitely in going forward, so we could keep an eye on what was going on around any site, not just the gold mine in Bridgewater.

MR. COLWELL: That's what I thought, but I just wanted to get that on the record to make sure.

MS. SNOOK: Oh, okay. We're happy to put that on the record. We'll be very diligent in monitoring the water supply, especially in Bridgewater.

MR. COLWELL: That's great. I know I don't represent Bridgewater but I think it's of big concern.

MS. SNOOK: I think it's great that you're concerned about Bridgewater. It's a very nice town.

MR. COLWELL: Thank you. But it is a concern all over because whatever happens in one place could happen in another. I know there were concerns about Murchyville awhile ago. Is there ongoing assessment going on with Murchyville - I forget the material that they use in there to get the gold out of the rock, it's quite a hazardous material they're using - is continuous monitoring going on there? Did that mine ever go ahead - what's the status on that?

MS. SNOOK: You know I have to tell you I don't know where Murchyville is, so I'm not familiar with that but I'd be happy to look into it and we can get the information to you however is convenient.

MR. COLWELL: Okay. You give that back to the committee . . .

MADAM CHAIRMAN: We'll make a note and it can come back to the committee, and we'll keep a list of the things that are asked for today.

MR. COLWELL: It could be called - it's in the back of Mooseland. Anyway, you will see - it was a big controversy at the time, and I just wondered if that ever went ahead.

Also along with the water quality, now you put new standards in place and I don't disagree with the standards but a lot of the municipalities are really having trouble getting up to speed on that. It's costing them a tremendous amount of money. I'm the Service Nova Scotia and Municipal Relations Critic and I know I've talked to a lot of mayors and the first thing they talk about, aside from the assessment cap, is the water. When they talk about the water and new water standards, it's going to cost the municipalities a substantial amount of money, and some of them just simply don't have it.

Are there any programs available through the province or federal government that can help them get to where they need to be with the standards? I'm not saying the standards aren't good, I believe they are and they feel the same way, but it's a dollars and cents problem. If they do that, then it means a lot of other things don't happen in their communities.

MR. BRIGGINS: To answer your question, yes, there is funding available. It is usually through various infrastructure programs that our sister department, Service Nova Scotia and Municipal Relations, is involved with.

On your question, those standards were part of our Drinking Water Strategy that we came up with in 2002, which was the forerunner to our comprehensive water strategy that we just released now. That was one of the key parts of that Drinking Water Strategy, was to introduce these new standards and get all our municipal supplies up to those standards.

They are consistent with other standards across the country, they're not any different than any place else.

We've been very pleased with the progress municipalities have made over the last nine years. I know we've already - because I checked this with our colleagues at the Department of Service Nova Scotia and Municipal Relations - we've given over \$100 million in the last 10 years for upgrades to municipal water supplies. We're looking forward to having all those municipal supplies up to our current standards. We're very satisfied with the progress that has been made.

MADAM CHAIRMAN: Just 30 seconds left.

MR. COLWELL: Okay, that's good, I'll ask some more questions later. Thank you.

MADAM CHAIRMAN: Thank you very much. With that, we'll turn to the Progressive Conservative caucus and Mr. MacMaster, you have questions for 20 minutes.

MR. ALLAN MACMASTER: Thank you, Madam Chairman. My first question has to do with municipalities. I understand municipalities are required to complete climate change studies as a requirement to gain access to federal money for infrastructure improvement, like water systems and I think waste water projects as well. Can you tell us why that's important?

MS. SNOOK: All levels of government are spending a lot of time and resources on analyzing climate change and the effects on Nova Scotians and Canadians in general. In Nova Scotia, because we're coastal, we have so much coastline, we're certainly susceptible to the effects of climate change. I know in the department we've worked very closely with the federal government in doing studies of many of the coastal communities in Nova Scotia because we can expect to see sea-levels rising and we have seen, in recent storms, more violent storms to be really affecting Nova Scotia as well.

Those are just a few of the impacts. Of course that affects municipal infrastructure hugely, in terms of bridges and in our department sewage treatment plants and water treatment plants which would be in danger of flooding. So there are many impacts for us to plan for and try and deploy our resources in a way to mitigate the effects of climate change, so that's why we're so involved in it.

MR. MACMASTER: Are we finding that we have much control over our climate here in Nova Scotia?

MS. SNOOK: Today, if we had any control, we would ban rain for 15 days. But no, I don't think we have much control over climate change itself but we certainly - it's up to Nova Scotians to manage the effects and to plan for those. Hopefully we will have control of that. Where new things go, we're always advising municipalities to look at their zoning

regulations and make sure that you are building in an area that won't be susceptible to flooding and the effects of climate change.

MR. MACMASTER: Well that makes sense. So I guess some of the purposes of these climate change studies is to look at just that, how a municipality would deal with the impacts of climate change on, say, their water systems.

MS. SNOOK: Yes. Water and waste water we are primarily concerned with in the Department of Environment but there are many areas that we're concerned with throughout government.

MR. MACMASTER: Thank you. Is there any way that your office can assist municipalities when they're completing those climate change studies? Could you act as a resource, say?

MS. SNOOK: Absolutely. We have a climate change group in the Department of Environment who are very knowledgeable about what the current thinking is around climate change and that's evolving all the time as we get more scientific information about what's going to happen. They work very closely with both the municipal and the federal levels of government. In fact, with community groups they're often working with various NGOs in town and many different stakeholders who have an interest in climate change. We try and make resources available to all.

MR. MACMASTER: That's great. Could you give us a couple of examples and maybe you just did - can you give us a couple of specific examples of how you could help a municipality?

MS. SNOOK: The climate change group does studies in general about the whole province and they've done adaptation studies in many municipalities and one comes to mind that they did on the South Shore of Nova Scotia regarding emergency access, what would happen with a significant flooding from a storm on the coast and what the various emergency routes would be. In fact, it turned out that they would have a little bit of trouble maybe accessing a hospital. They looked at alternate routes and alternate ways of access which are impacts that affect everyday life and those were the ones we were trying to be helpful to municipalities with.

MR. MACMASTER: Thank you. My next question, I know after what happened in Walkerton, governments became very concerned about their responsibility of protecting water for people. I understand now with the new rules in place, it costs more for municipalities to put together water systems. How do we balance the affordability of water systems - because we need to have them - with the more stringent rules that we see now for water safety?

MS. SNOOK: That process has been going on for the past 10 years that Mr. Briggins alluded to, post-Walkerton really but Nova Scotia was preparing to do a huge look at their drinking water situation before Walkerton happened. They've been able to implement that the past 10 years and we're in a place that we're very satisfied we're doing as much as we can to ensure safe drinking water for all Nova Scotians.

MR. BRIGGINS: Yes, we recognize that there is a significant challenge there. Just about everyone that we've talked to agrees that when it comes to drinking water that's an area you don't want to mess around with because it is so important for public health protection. We recognize that the challenge is there and we try to balance that off with the public health concerns and protection.

MR. MACMASTER: I guess the reason I raised that is the more expensive water systems are the fewer we can implement for Nova Scotians. Sometimes a water system that's put in place may be better than what they have on their own. Can you comment on that?

MR. BRIGGINS: The other point I was going to make was the fact that our rates in Nova Scotia, the rates the municipalities charge to their customers, hadn't really changed very much for many years. We had some municipalities where the rates hadn't changed for 20 or 30 years, so in a way there was some catching up to do. That's why you've seen a number of communities have increased their water rates to pay for these changes. They recognize that there is a cost to making these changes but that it's a worthwhile investment so they're able to put a priority on that. We certainly work with them to accomplish that.

MR. MACMASTER: I expect the next question here may be to do with other people in the Department of Environment but any comment you could offer would be appreciated. I often hear of runoff from improperly designed sewer systems. These could be designed by individual property owners; they're not set up properly and they contaminate other people's properties. It also could, I suppose, contaminate waterways that lead out into the ocean.

My first question is, what kind of enforcement is in place to protect water because I'm sure it's part of your strategy is to try to protect against that kind of activity.

MS. SNOOK: Waste water effluent has been a concern in the department for many years and I think you'll find we're doing much better in that regard. We still have work to do which is part of the water strategy. I hope you're not hearing about it as much because there have been tremendous efforts in enforcement and standards for participating with the Canadian Council of Ministers of the Environment on new waste water effluent standards.

At a provincial-federal level, that's really a priority. Maybe Dave wants to add a comment about what we're doing.

MR. BRIGGINS: Basically the process that we went through a few years ago with drinking water supplies, we were going through a similar process with our waste water supplies, and through this Municipal Wastewater Effluent Strategy that the deputy mentioned we're looking at getting all municipal waste water treatment plants up to current standards, which of course brings the same fiscal challenges that the drinking water supplies did - but we're working with the federal government and with other departments of the provincial government, and with the municipalities, to address that issue. So, does that answer your question?

MR. MACMASTER: It does help a little bit. But maybe just to put a finer point on it, if a landowner was experiencing runoff from someone else's property, contaminating their property, what should really happen in a case like that to assist the landowner who is being encroached upon?

MR. DAUPHINEE-MUISE: Right away that homeowner should be calling our local district office. Our inspectors would take that very seriously, and they would go out and inspect the system. If it is a malfunctioning system, there are enforcement options and there are compliance options that can be moved forward. That is at the discretion of the inspector, based on the circumstances that are seen in the inspection.

MR. MACMASTER: If there was any recourse needed to go beyond that, could somebody contact your office?

MR. DAUPHINEE-MUISE: My personal office? Certainly.

MR. MACMASTER: My next question, what impact do you see upon nature, on wildlife, of improper water systems, because that could be affecting sectors of the economy that depend on a good - I think of the fishing sector, if you have runoff from sewer systems, it's getting out into the ocean, and you could be contaminating the environment for fish biomass and whatnot - can you offer some comment on that?

MS. SNOOK: It is a priority to keep good, clean water for humans and for animals and wildlife. The department is very concerned with our protected areas, and protected areas are the homes to wildlife, so our water strategy affects the whole province. Certainly in terms of keeping our watersheds healthy and providing a safe environment for all of Nova Scotians is a priority.

You mentioned fishing in particular. Nova Scotia has had, in the past, a history of using our ocean poorly, for dumping things we shouldn't be, but I think we've made great progress in alleviating that problem and certainly the Halifax waste water plant that we have now in place is a tremendous move forward for us in terms of not putting waste water right into the ocean, and has improved the water quality in Halifax Harbour and in the Northwest Arm. The water strategy does have that as one of its goals, to continue on to

protect our coastal areas, and we work very closely on the developing coastal strategy in that regard to put in more actions that will protect that water.

MR. MACMASTER: I think that's very positive. Thank you. My next question - I know most Nova Scotians when they use water every day, and this is something I used to think about years ago - why should people be concerned about the volume of water they use at home? I guess I'm referring now to what becomes gray water - whether you're doing the wash at home or what have you, you're using water - what happens to that water? Why is it important to try to conserve that water and the amount that's being used each day?

MS. SNOOK: I think that it's great when individuals can contribute to the study and to Nova Scotia's water quality by monitoring their use very carefully at home. Canada has the second highest water use per person globally, which isn't a great statistic to have - it's about 328 litres per day for each person. The department does a lot in terms of education and with schoolchildren, talking to them about ways to conserve water because it is a very important resource; it's not unlimited. Waste water that you use to shower or do the wash or run the dishwasher all goes into the waste water catchment and then runs through the waste water treatment plant, of course, and adds to the waste water that we're collecting and having to treat.

So it's very important to conserve and not to waste the resource - and also to be careful with what you're putting down the waste water. People are concerned about added chemicals that end up at the end, and they mostly come from shampoo and personal care products and things that we use - dishwasher soap at home all the time. So if you can be conserving and using the minimum flows, it benefits all Nova Scotians.

MR. MACMASTER: An interesting point because there was a story recently about bacon fat collecting in pipes and it caused a backlog, I think it was in Bedford. I think - and I think this is something I used to think before I learned more about it - but I think people think that when water is used, it goes into the ground and then eventually it may evaporate back up into the atmosphere and it's renewed. Is there, say, a percentage that might be renewed from that process, but is there also a percentage of water that is contaminated forever, or that ends up just sitting in the ground forever, that it can't become renewed as part of the natural process?

MS. SNOOK: I know what you're referring to, the water cycle that we all did in Grade 5 science where . . .

MR. MACMASTER: That's why it's so unfamiliar to me now.

MS. SNOOK: . . . it all comes up in rain and weren't the teachers wonderful because we all remember that. But I think that the way we treat water today, it doesn't really run through the ground, to your point, we're running it through the waste water treatment plant and some of it, that which attains a certain standard and is relatively clean, is put back into the ocean or into the ground, as you say. The only thing that we are

gathering more and more of would be those chemicals or biosolids that we are having to collect and deal with, on land or somewhere else.

MR. MACMASTER: Right, thank you, and what about for people who have their own water systems and septic systems, on their own property, I guess the same is true?

MS. SNOOK: Yes, pretty much, but your gray water is going out of your septic bed into the ground, I guess, and it's not really returned to the environment directly, the environment cleans it up to a certain extent and returns it.

MR. MACMASTER: Madam Chairman, how much time do I have left?

MADAM CHAIRMAN: You have five minutes.

MR. MACMASTER: Okay, here's a subject that has been hot in my area and it's hydraulic fracturing. There are people concerned about it. Is your office familiar with hydraulic fracturing?

MS. SNOOK: Yes, we are. The Department of Environment and the Department of Energy are jointly doing a review of fracturing, what's going on in North America, and how it might impact Nova Scotia in the future. We are doing an internal review with technical staff from my department and from the Department of Energy, and soliciting outside advice where needed.

We're very fortunate in that many jurisdictions in North America are conducting similar reviews: currently, notably the United States Environmental Protection Agency; the Alberta Government; I read one the other day from the Canadian Association of Petroleum Producers; various jurisdictions throughout the United States. It's a concern everywhere with the advent of shale gas. So we are currently looking at that very closely.

MR. MACMASTER: Have you any concerns about the water table because some people are afraid that if something should happen with the process, it could contaminate the water table and then everybody's drinking water would be impacted. Have you any thoughts on that?

MS. SNOOK: Certainly the focus of the review is concerns around water, and the impacts of fracturing on water, specifically, because there have been reports in the media about the effects of fracturing, that it might contaminate groundwater. We're currently in the very early stages of our review and we're going to keep on top of that.

MR. MACMASTER: Have you any thoughts going into the review on it though?

MS. SNOOK: Well, it appears that some areas certainly are having difficulties with water, but on the other hand, the industry, if it's well regulated and does things properly in

terms of their drilling practices and those things, they seem to think that they can, on the other hand, manage those impacts. So we're just investigating all the science and all the reports at this stage and I'm sure they'll have an interesting conclusion for us.

MR. MACMASTER: I've seen reports, I know there's a film that shows people lighting their water on fire, have you any thoughts on that? Is that something that can be naturally occurring?

MS. SNOOK: I think both ways, probably. Scientists tell us that that could be caused by a problem with a person's well accessing hydrocarbon, somehow, and coming up through the well to the tap. It can also occur naturally in areas that are gas prone. If you happen to drill a well in an area that has shallow gas formation or coal formations, you'll naturally get some methane bleed-off into your water and you could create the same event. You can't really tell from the film, unfortunately, what the situation really was. It gets kids interested in science so I guess it's a good idea to show it on TV. You can do it relatively easily, but don't do this at home.

MR. MACMASTER: Thank you. What about the impact on lakes and watercourses? In the Lake Ainslie area, that's an area where PetroWorth Resources has a licence, and they may apply for an application. They haven't applied yet for an application to use hydraulic fracturing but because it's near a lake, do you have any thoughts on how it might impact the lake?

MS. SNOOK: Any oil and gas activity application would be vetted by the Department of Energy and the Department of Environment. Certainly any impacts on surface water, which would be the lake, or groundwater, which would be local well supply, would be evaluated before any approvals were given.

MR. MACMASTER: I know from looking at the documents for the application for the permit for a conventional oil well that there were measures in place to protect against surface runoff and things like that. Does your office work closely with the people who enforce those standards for those types of projects?

MS. SNOOK: Yes, our Environmental Monitoring and Compliance Division would be very concerned about any release of any fluids from any industrial site and would make that there weren't any.

MR. MACMASTER: Sure. One of my concerns . . .

MADAM CHAIRMAN: Thirty seconds.

MR. MASTER: I'll just slip a quick one in here. One of my concerns about fracking in Nova Scotia is that we don't have a lot of experience with it here. What kinds of resources can you draw upon because if we don't have a lot of experience, there may be more chances of something going wrong?

MS. SNOOK: We don't have a lot of experience with the activity being conducted within our province, but when people do any kind of activity of that sort, we would check their credentials and make sure they were well experienced in whatever activity they were conducting. I think that applies to oil and gas drilling.

Typically, when we've had people drilling wells in Nova Scotia, they haven't been Nova Scotia companies per se; they've been oil and gas companies from elsewhere in the country or in the world.

MR. MACMASTER: Thank you.

MADAM CHAIRMAN: Thank you very much. Your time has elapsed so I would turn it over to Mr. MacKinnon for the NDP caucus.

MR. CLARRIE MACKINNON: Thank you very much, Madam Chairman. It's a pleasure to have the department here with us this morning. I was fascinated with the comments, deputy, in relationship to your opening remarks with the C.D. Howe Institute, Steve Hruddy giving credit to Nova Scotia in relation to the improvements that have been made with safe drinking water.

Now why I was sort of taken aback by that is that the C.D. Howe Institute is not very favourable to governments, generally, particularly NDP governments, so I'm wondering if you could just elaborate just a bit in relation to that?

MS. SNOOK: I agree with you that normally the C.D. Howe Institute is not complimentary about government actions but I think that - and I can't take any credit for this - but the past 10 years Nova Scotia has made tremendous strides in terms of bringing our drinking water up to some of the highest standards in Canada. They also complimented us on the standards that we chose to implement and follow in Nova Scotia. I must say we have some excellent staff who have been working very diligently over that decade on this particular area.

I think Mr. Hruddy was very fair in his assessment of Nova Scotia's accomplishments. In fact, four times in his report he did cite areas that he felt strongly we were moving in the right direction and setting a good example for other provinces. They weren't high praise, they were very factual praise, which is even better, I think.

MR. MACKINNON: Thank you very much. I've always been an advocate for spreading government throughout the province and seeing that rural areas are properly served by government. I understand you do have inspectors in various locations throughout the province. How many inspectors do you have from a monitoring and compliance perspective and where would they be located? Do we have a good geographical balance? I know Pictou County is served by a depot but could you elaborate on that, perhaps?

MS. SNOOK: We have just over 70 inspectors in the Environmental Monitoring and Compliance Division. The Department of Environment is very well represented throughout the province - I have about 275 employees and 160 of those are in the field, so the majority of our staff are not in the Halifax office. Our work is really out all over Nova Scotia, particularly in rural Nova Scotia. We're served by 11 field offices that are the home office for all those 160 people. The Department of Environment is really the face of the government oftentimes in any community, and I think they do a great job actually.

MR. MACKINNON: Thank you. Perhaps you can be an example to some other departments as well.

One of the concerns that I have in my own constituency is that we had a fire at a C & D location, a construction and demolition disposal area, in Broadway. I understand there are in fact cells that keep some of the fluid, particularly the leachate. A tremendous amount of water was put on the disposal area fire and I know there are requirements for cells - and there's a waterway very close to that site in Broadway, and I'm wondering if the level or the number of inspections could be increased at C & D sites. We were very concerned about the waterway that was just behind this C & D disposal site. Could I have your comments?

MS. SNOOK: I'm not really, really familiar with that site, although I have seen a briefing note about it because there have been an increased number of inspections at that site after the incident. I will defer to Mr. Dauphinee-Muise to just tell you a little bit more about what the EMC group does in terms of C & D sites.

MR. DAUPHINEE-MUISE: Speaking in general with respect to a C & D site, there would also be some monitoring components, so there'd be some groundwater wells installed to ensure that any leachate that was not being controlled by the cells is being monitored so that we're not seeing any background concentrations, elevating and things like that. Our staff would review those reports when we receive them from the facility owners.

If there are any components in there that we would need to look at with respect to - maybe we need the Department of Natural Resources to help us to review a report because they have some hydrogeologists as well, so say there are some naturally occurring elements, I guess that steps back to the strategy about the integrated water management approach. We're going to include the other governmental departments when we need the expertise, but really the monitoring would be in these groundwater wells. We would monitor those, we would inspect the site and, if there were any kind of dramatic changes such as a fire, definitely our inspections would increase to ensure there's no release of a substance that would be harmful.

MR. MACKINNON: I'd just like to put a word in for the continuance of very, very regular inspections - not just at that C & D site, but at other C & D sites as well.

I'd like to talk for a moment about partnerships, and I understand you have a number of them to bring your 10-year program into being. One that I have been very aware of is with Clean Nova Scotia. A local person who used to be an employee of the Department of Environment, Gord Anderson, was out looking at septic fields and advising people on changes that could take place there. I think there was an assistance program to upgrade some of the bad ones - is that program going to continue, and how effective have some of your partnerships been?

MS. SNOOK: We do have many great partners, and Clean Nova Scotia would be one that does particularly valuable service to the province in terms of carrying out many detailed projects. I was visiting with them on Friday and I was so impressed with their staff - they're very keen and very diligent, and very able in terms of the impact that they're having in Nova Scotia.

The program that you allude to about improving septic, I think is a very important one of the department that has had a tremendous effect and is continuing - and maybe, David, you'd like to speak to it a little more?

MR. BRIGGINS: Yes, the program is called the Environmental Home Assessment Program - EHAP - and its focus is on well owners and owners of on-site septic systems that may need some assistance to make some improvements or get water tests done. That program has been spread out across the province - Clean Nova Scotia is one of our partners to help deliver that program and we've seen excellent results from it, very high praise, and we certainly would like to see that continue.

MR. MACKINNON: I know Mr. Anderson has done great work throughout all of northern Nova Scotia, so I hope the program is funded into the future years as well.

We had a great event here yesterday with farmers. The farm community was out for an event here - and the last thing I would be advocating is harassment in relationship to fertilizers and so on, but there has to be some kind of a balance. I remember being in Ecuador a number of years ago and the banana plantations were being sprayed and the runoff was greatly impairing and polluting the shrimp operations, some of them owned by the same large - the banana plant corporate structure was actually part of the shrimp structure. Now I know we are so far ahead of places like Ecuador, but what are we doing in relation to monitoring some of the fertilizers being used? Our farmers are very, very responsible and I know that, but there the balance is a very fine one - are you finding that balance?

MS. SNOOK: That's an interesting question. The Department of Environment looks at sort of one impact of the fertilizers and you hit it - the groundwater and the effects on surface water pretty much. But we work very closely with the Department of Agriculture that really has the frontline contact with the farmers. Oftentimes I think our inspectors and their inspectors end up at the same site when there is a complaint or

something they think is a difficulty, so that they get the picture together and are able to make one aware of the other impacts. It's a question of competing uses in some instances.

We certainly advocate and do a lot of education around responsible use of any chemicals, and fertilizer is a chemical that's usually used to enhance crops. I would like to stress that we do work very closely with the Department of Agriculture. They currently have a program on about environmental farming with their clients, and I think that has been very useful in terms of making them aware of runoff issues and other impacts that farming has.

MR. MACKINNON: I believe that our farming community is very knowledgeable and is very responsible as well. Anything your department can do to work with the Department of Agriculture to help our farming community would be greatly appreciated.

I'm going to be sharing my time, and I think I have just about used half of it, but one last shot if I could - the United Church of Canada has been lobbying for diminished use of bottled water and bought water and so on, so that emphasis won't be taken away from tap water throughout our nation. I'm wondering, is the department doing anything in relation to that as well? So many people today are buying jugs and bottles and you see them everywhere. There has to be some promotion of the safety of tap water - any quick comments before I turn it over?

MS. SNOOK: The department does everything it can to promote the use of tap water. We're so lucky in Nova Scotia to have some of the highest quality tap water anywhere in the world, oftentimes higher quality than what you get in a bottle, I understand. We do encourage that and, as you know, we don't use bottled water in the government anywhere, both to decrease the amount of plastic going to our landfill and also to promote the use of tap water - so we do what we can.

MR. MACKINNON: I'll turn the remaining time over to Mr. Whynott.

MADAM SPEAKER: Thank you. Mr. Whynott, your turn.

MR. MAT WHYNOTT: I'll get right into it, because of my honourable colleague. I want to talk about two issues and, in particular, the reason why is because these two particular issues are concerning for some of the people I represent. One is with regard to private drinking water for what used to be called mobile home parks, but now called land-lease communities. In particular, for Springfield Estates, I have a few questions. Can you just explain how a private drinking water system might be put on a boil order?

MS. SNOOK: We do monitor land-lease communities now, and I think we have about 40 that we work with quite closely, and their drinking water is privately owned by whoever owns the land-lease community and it's up to them to maintain the quality, but any sampling done comes, as well, to the department - and that's how we are aware of any

problems and, immediately upon being aware of that, would contact them to issue a boil water order.

MR. WHYNOTT: So is it the department that issues them or can a private owner put themselves on a boil order?

MS. SNOOK: I'm just going to defer to David, so I don't mislead you at all - I think I know, but I don't want to make an error.

MR. BRIGGINS: Yes, the owner themselves can actually initiate the boil advisory and often they do because they're the closest to the situation. It's usually as a precautionary measure and it's better to be safe than sorry, so we're okay with that. In the event that the owner doesn't initiate the boil advisory, we can do that on the advice of the local Medical Officer of Health and occasionally that is done as well, but it can work either way.

MR. WHYNOTT: How do they come off a boil order - is it only the Department of Environment that can take someone off a boil order?

MR. BRIGGINS: Right. The owner can initiate the boil advisory, but only the Department of Environment or the Medical Officer of Health can remove the boil advisory. In that case we would be monitoring, making sure that corrective action was being taken and satisfied that the situation has been resolved before we would remove the advisory.

MR. WHYNOTT: What sort of measures can the Department of Environment put in place to ensure that the owner of the water source goes with the regulations or the regulations are in force - what sort of things can you do as a department to ensure safe, clean drinking water for residents?

MR. BRIGGINS: They're required to have a corrective action plan. That's right in our regulations, so we monitor that corrective action is being taken - and that can range from increased sampling to, if there is a source of contamination, removing the source of contamination. If it's a treatment issue, it may require an upgrade or a change to the treatment system, and whatever the action is that is required to address the situation has to be taken and completed to our satisfaction.

MR. WHYNOTT: I guess the reason why I ask these questions is because of a particular project that has been going on in my area. As I'm sure you're aware, in Sackville there is a lot of silt, a lot of red dirt, and when land is being disrupted it oftentimes gets into waterways. Through your department in your local office in Bedford, it was through working with the Department of Transportation and Infrastructure Renewal and your department, they found that there was no evidence that the issue that is faced by the tenants there had nothing to do with the Margeson Drive project - I'm just wondering, can you confirm that?

MR. BRIGGINS: I will ask my colleague to speak to that.

MR. DAUPHINEE- MUISE: We can get back to you on that. We want to make sure we get that right for you, so we'll get back to you on that.

MR. WHYNOTT: Okay, perfect. My understanding is - just so you know - the local folks have said look, there's no evidence of that. The reason why they say that is oftentimes if there's a water source that is being used for drinking water, the folks there explained to me that oftentimes when there's a big rain, which we know happened in November, December of last year, lakes flip. I didn't realize that's what happens, but sometimes, as they explained it to me, in fact the bottom of the lake actually comes to the top and the top goes to the bottom. Can you explain that a little bit? I don't know if anybody here is an expert on that.

MADAM CHAIRMAN: Mr. Briggins, maybe?

MR. BRIGGINS: My background is in groundwater, but I do know that it's a seasonal process for surface water bodies, that they have this natural overturning or mixing of the lake. It depends on different factors - temperature, rainfall, time of year, but all part of a natural process to ensure that the water body is kept in a healthy condition.

MR. WHYNOTT: The second issue is around - in the Water Strategy, does it discuss anything about siltation?

MR. BRIGGINS: About which?

MR. WHYNOTT: About siltation getting into our lakes and rivers and disturbing the habitat that lives in there.

MR. BRIGGINS: Yes, the Water Strategy does talk about that, and identifies storm- water management and sedimentation and erosion as one of the actions. Certainly it's something that we consider to be important and something we want to address through the strategy.

MR. WHYNOTT: I assume the work has begun on that piece of the puzzle.

MR. BRIGGINS: Yes, part of the piece of the puzzle is just getting some good understanding and basic information about our watersheds and our water supplies, so we're currently doing some of that assessment work right now; in fact we've bartered with Dalhousie University - their hydrologic research group are doing a risk and vulnerability assessment of all 46 of our primary watersheds and starting to collect some of that basic information. That will, in turn, guide us in terms of any program or policy changes that we need to make.

MADAM CHAIRMAN: Thank you. The time has elapsed with that, so I'm going to turn it over to Mr. Colwell for the Liberal caucus.

MR. COLWELL: How much time do we have?

MADAM CHAIRMAN: I would say we have 12 minutes. I'm going to recalculate though; I might give you more. I'll let everyone know.

MR. COLWELL: Again, thank you. I just have a couple of questions, again, always nice questions to ask.

Is there an actual map or some other way that you watch and see how much our underground water, our water resource in Nova Scotia - is it depleting? Is there a way to measure that? Do you track that? Because we have a lot of water being extracted and shipped away in bottled water - how do you know for sure that that's not dropping our water table and causing all kinds of problems?

MS. SNOOK: I'll let David speak to the map because we have many various layers of geographic information now regarding water resources, where wells are and where withdrawals are. I'll just make the comment the department also does issue water withdrawal permits, but the bottled water industry is not a significant withdrawal compared to what we would take out as HRM or what any other town would take out. It's a relatively small amount.

David, you might want to talk to the mapping.

MR. BRIGGINS: We have a network of wells across the province; it's called an Observation Well Network that we monitor on a routine basis. We actually have downhole data loggers that measure the water table change. I think it takes a reading every hour and that information is all fed into a central computer system so we can actually, from a computer in Halifax, see what's happening with the water table at any of those - I think there are about 40 - observation wells around the province. That information is all available on our Web site. There are quarterly and annual reports that are done and people have access to that.

We use those to track changes, trends, any drops in the water table, but as the deputy mentioned, we don't see bottled water having a big impact on the ground water table because the amount of water extracted is actually not that great compared to others. If it were, we do have a database of all our water-withdrawal users and approvals and how much they're withdrawing; we make sure that they are within their allowed limits.

As a further safety check we actually have separate legislation that deals with bulk export of water so that our water is not removed in bulk quantities and therefore dropping

our water table or lowering the amount of water in our service water bodies. I think there are different measures that we have in place to watch for those types of trends.

MR. COLWELL: In your monitoring of wells - has there been any change in the water level in the province, either up or down, over the last 10 years?

MR. BRIGGINS: It does go up and down, both within the year and from year to year, but overall it has remained quite steady when you look at the trend over the years. In fact, we've been monitoring since 1965 so some of our observation wells predate our department and we don't see any consistent trend, either up or down, so it's staying pretty much constant.

MR. COLWELL: Now, there was - I can't remember the exact street, I should remember because I had enough phone calls on it - in the Halifax area there is one neighbourhood that ran out of water. They drilled the wells really deep and the water table was depleted. Is there any monitoring for that? Now that's just one small area, but how do you monitor that and what are the penalties for that if someone extracts too much water out of it or it's not set up properly to start with? What causes that to happen? It seems unusual; it's a small water table in that area and they depleted it and it just doesn't want to come back.

MS. SNOOK: I'm not sure what area you are speaking of in particular. Generally the water table doesn't disappear in an area but you could be in an area that doesn't have sufficient water to support the number of houses that might be there. I think HRM and our department have worked, recently, to try and make sure that when developers are developing in an area that they've done the proper water testing to make sure they are in adequate supply for whatever it is they are proposing. I think that will shortly be part of the bylaws to prevent what you're describing.

As I say, water doesn't normally disappear in an area, in particular, but all areas don't have a great ground water supply. I'm sure you've all heard stories about wells that don't have adequate flow. I'm not sure if that's helpful to what you're describing but it is a concern, certainly, in the department, that there's good water before the house is built, or the apartment or whatever it is you're putting in.

Do you want to add to that David because this is really your bailiwick?

MR. BRIGGINS: It is an issue, in some cases, as the deputy mentioned. It's not so much that the water table disappears but, depending on the bedrock geology and where the fractures are, sometimes it's not always there in the amount needed to supply a number of households in a smaller area. We've been working with HRM in particular on this issue, to develop some guidelines for the hydrogeologic assessment to be done when development is occurring, so that we don't run into this problem.

There's no set limit that people can pump when it's a private well. They don't tend to use a lot of water but there's no approval issue that would have a limit attached to it. That's why we have to look at working with HRM and other partners on these assessments that kind of look at the full picture, instead of looking at each individual well.

MR. COLWELL: I know in Digby there was an application a while ago to export large quantities of water and it almost went through. How would you monitor a situation like that, to ensure that the water table didn't drop? If the water table did drop because of an activity like that, does it recover, if the activity is stopped?

MR. BRIGGINS: Well all what we call large water withdrawals, which would be anything over 23,000 litres per day, requires an approval from our department. With those approvals, in almost every case, is a term or condition that they have to monitor how much water is being used and notify us if there is any change. We get that information so we would be able to see if there's an over-extraction taking place or the water table is dropping. Then we can address that and require the approval-holder to take the necessary action.

MR. COLWELL: So that would be monitored by the department or would it be monitored by the person who has the approval?

MR. BRIGGINS: The monitoring is done by the approval-holder but the information comes to the department and is reviewed by staff in our department.

MR. COLWELL: I've always had an issue with that because I'd rather see the department do the monitoring to have more confidence in the numbers. Even if the proponent had to pay for it, I think that would be a lot better. I had some issues years ago with Nova Scotia Power and the horrible crap - excuse my language - they were dumping out of their stacks here in Dartmouth. They did the monitoring and gave you the information. I would have felt a lot more comfortable at that time if the Department of Environment was doing that monitoring.

I think that's probably something that maybe the new deputy minister should look at. We don't want taxpayers to have to pay for that and that's probably why you do it the way you do it. It would be better if the department at least supervised this and made sure that everything was in place, not just getting the data from them and reviewing it. Because it would be quite easy to monitor in a different location or whatever the case may be, to get numbers that would be favourable but not really protecting our residents or our province, indeed.

Is there any plan of doing something like that? I think that's very important. If someone wants to set up a business to extract water or whatever they're going to do, if the Department of Environment would get paid to do it - I mean it's a cost, just a cost back

from the proponent, it would make a lot of sense. I'd have a lot more confidence in the numbers, as would Nova Scotians.

MS. SNOOK: I'll take your advice and check into that. I'm not aware of any changes planned. I do know that the department, when they do do monitoring, they try and do it on a cost recovery basis with industrial clients. I understand your issue there.

MR. COLWELL: I've got a lot of confidence in your staff and sometimes not so much confidence in proponents.

MADAM CHAIRMAN: Mr. Colwell, you have four minutes left, I've added a couple.

MR. COLWELL: Thank you. I've got a whole pile of questions here. The other thing is I want to talk about a couple of things. Pyritic slate, when you discover pyritic slate - I realize when you dump it in salt water it neutralizes it and there has been some controversy over that. In the Clayton Park area, development is really expensive because of this pyritic slate. How closely does the department watch that, monitor that? I know it causes all kinds of problems. Correct me if I'm wrong but it creates an acid which causes all kinds of problems for the watershed area. Could you give me a brief summary on how you monitor that and make sure it is safe when it's uncovered?

MS. SNOOK: It has been a problem throughout Nova Scotia but especially out around Bayers Lake. We have quite a large deposit of pyritic slate and it does require enhanced construction methods when they're working, I'm thinking particularly of road building, because when you expose it and water runs over it, it does make an acid that then runs into the groundwater. As far as the particular way we're enforcing it, I'll have to defer to Jason. I do know that the Environmental Monitoring and Compliance Division does do inspections for that and they work very closely with the Department of Transportation and Infrastructure Renewal.

MR. DAUPHINEE-MUISE: Our inspectors would be involved in any of the construction processes. We would monitor that. It may not mean that we're on site every day but we are aware of what's going on and where the rock would be removed and stored or disposed of. That would be all part of the process of ensuring that that is not causing an adverse effect.

MR. COLWELL: The other thing is there has been a lot of controversy about the biosolids in the province. In the past when I was critic, we did a lot of work on this and there are some pretty nasty chemicals that come out of biosolids that have been identified. How can we be sure if this material is dumped on the surface of the ground, as it has been in some areas and will be, I would imagine, as time goes on. Because I know HRM has a huge problem getting rid of this stuff, and with the size of the system they have here. How sure are we that this is not contaminating the water table wherever it's being dumped? Even if you're using it to, like they did in Point Pleasant Park, in the flower beds and things like

that, in non-food consumption areas, how confident are you that this is really not going to cause a problem?

MS. SNOOK: We have the strictest guidelines for biosolids currently in North America and we constantly review any of the new science that's coming out and try to ensure the safety of any biosolids that are produced. Our biggest biosolids producers are in Halifax, as you mentioned, and in Trenton. In fact, our only sources of biosolids. Biosolids are the treated remains from the wastewater treatment plants and to become biosolids, then they're treated, that waste is taken from the plant and treated with heat and mixed with sort of an inert ash before it becomes the final product that people refer to that they spread on land for fertilizer, or whatever.

So that's monitored the whole way along and Class 8 biosolids are deemed to be safe and looked at as a resource actually by many people, and they can serve a useful purpose but we are on top of that all the time. We recognize that Nova Scotians are concerned so we are monitoring what's happening there all the time and we work closely with the Department of Agriculture in terms of the end-use for any biosolids that are produced.

MADAM CHAIRMAN: I'm afraid your time has elapsed now, Mr. Colwell, so I'm going to turn it over to Mr. d'Entremont for the Progressive Conservative caucus, 14 minutes I should say.

HON. CHRISTOPHER D'ENTREMONT: Thank you so much for your presentation and I know we have sort of drifted here, there and everywhere around water strategy in our questioning. A lot of times it is because we have a deputy minister in the House and are able to ask a whole bunch of questions, but I am going to stick a little bit around water issues and, of course, water issues that are pertinent to folks in the constituency of Argyle. So maybe there will be a lot of having to write down and get back to me on some of these things.

I'm going to first start with maybe something more local and I know the member for Preston did bring this one up. It revolved in and around the issue of subdivisions, the experience that we have had with Monarch and Rivendale subdivisions, in Sackville or in that area, where they continually run out of water. So I'm just wondering - it's sort of a two-part question. Why does it happen that these subdivisions do run out of water? I have an idea that everybody's drawing on that aquifer and therefore it runs out of water. But if you're constructing a semi-large or large subdivision, what are the requirements for water in those areas, especially since they're using drilled wells?

MS. SNOOK: It certainly is a concern when Nova Scotians don't have access to adequate water. I did allude to before - and I'll ask David if he wants to elaborate on it further - work that we have been doing with the municipality here in Halifax to ensure that the subdivision tests for water delivery rates before the subdivision goes in. Sometimes, for

geological reasons, there just isn't adequate flow to support a subdivision and the developer hasn't adequately researched that before selling the lots.

David, do you want to add to that, in terms of timing maybe, when does that come into effect?

MR. BRIGGINS: Yes, that was one example and there are others around HRM and in other parts of the province. Sometimes when you get a large cluster of homes in a smaller area like in a subdivision, there can be competing demands for the water that's there. That's why we've been working with HRM to develop these hydrological assessment guidelines for subdivisions, so that before the homes are constructed this information is collected and assessed to ensure that there would be a proper supply.

The problem in the past has been that each lot, each property, was just looked at individually and when you put them altogether in a group you can have a problem. That's why we're moving ahead with these guidelines - and I think that will be a big help in the future to avoid those types of situations.

MR. D'ENTREMONT: Thank you. I guess with the added pieces, as HRM continues to expand and grow, one area that tended to have water, someone shows up next door and puts in another big subdivision, they may be drawing on that same area and therefore competing for that water source in that area. I know of many people in rural areas, I hear someone builds next door and all of a sudden their well goes to half of the flow that it had before. From an expansion from the size of a subdivision, how does that go to a rural area where people are just building willy-nilly around a certain individual's house or nearby, how could we assure supply to a homeowner in that respect?

MS. SNOOK: I think your point is well taken in that people do have to not take water for granted. I think it's sort of a culture change we're going through in terms of as you get more and more development, you get more and more demands on your water supplies. The Water Strategy tries to focus us, as Nova Scotians, on thinking about those issues. Most definitely you do get competing uses in the same aquifer. It's not an unlimited supply; there are limits and you have to make sure before you build a house, or whatever, that there is adequate supply. The department has made resources available to people through the water portals, specifically with the Water Strategy, where people can see what the wells are like in the area before they might want to buy the lot or put in a well.

There will be that continuing problem of adequate supply for as much development as needs to go on in rural areas. People have to think about the water before the development, I would say.

MR. D'ENTREMONT: Who is responsible in the end? I'm building a new home. I know that in order to have that home, I need to have my field bed system; I know I need to have my well put in. I call a contractor or an excavator or the installer to come in and do that work for me. Who consults with the water portal or who is supposed to have the

information on these kinds of things? I know the contractor knows how to build a well or I know they know how to go and drill a well, but who is doing that extra work and making sure they're not going to rob water from the next-door neighbour?

MS. SNOOK: I think that the Water Strategy gives us a nice focus to make sure everyone is being educated about these issues. The department does work with the well constructors and the well drillers and various groundwater groups to try and educate those contractors who might be working for individuals about issues around water source. But it basically would still be the private landowner who would have to do a lot of the investigation before they committed to the development.

This is David's expertise. I just want to make sure, if he wants to add anything, that he feels he can.

MR. BRIGGINS: We have, for example, available through our Web site, an inventory or a database of all the wells in the province, private wells that have been constructed that people can have access to. Sometimes it might be a little daunting for an individual homeowner, especially if they don't have a background in water and science, but the information is available. Sometimes people will hire somebody to do that work for them; certainly in the case of these larger subdivisions that we spoke of, they would actually require a qualified person to do those assessments. There is no service out there that provides these technical assessments to every homeowner who is ready to construct a well, but there is certainly information available to them.

MR. D'ENTREMONT: The reason I wonder a little more about it is because there is a lot of effort that is done of course in disposal when it comes to waste water management and that for your home. Where you have the Level 1, Level 2 contractor, they have to go through training, they have to go through X amount - and I'm not here advocating that we need to train people building wells, but why is there so much regulation around the waste and ultimately we're running into problems on the potable water side of things? Shouldn't there be maybe a little more balance of regulations between those - I guess you would call them two businesses, but normally it's the same guy that may do both - to make sure that they don't compete for things? I think finding water is getting more and more difficult.

I just go by my neighbour - last summer they were running out of water; they were sharing a well with the neighbour. They did want to get onto their own supply and they dug two holes and couldn't find water so they're still stuck with the neighbour. I'm just wondering, why does it seem it's still up to the homeowner, and there's no real regulation to make sure that the guys who are building this somehow have a level of certainty on the quality of the water you're going to get or the quantity of water you're going to get?

MS. SNOOK: I share your concern, and I think that comes through with the Water Strategy and that people can't take water for granted. It really is a wonderful resource and

Nova Scotians are very lucky that we do have very high-quality water, but we don't have an unlimited supply everywhere. I think that the department is doing what it can to educate Nova Scotians and contractors and developers, and anyone who will work with us in terms of don't take your water for granted; make sure you investigate thoroughly before you commit to a new area. I think our climate change folks would be very concerned about the concerns you mention in terms of urban sprawl and all those sorts of things.

You could get into a number of different areas in terms of water management issues that are going to be facing Nova Scotia over the coming years, and we hope that the Water Strategy gives us a good foundation to analyze those and be helpful to Nova Scotians in dealing with them.

MR. D'ENTREMONT: My next part is going to go around what happens when you go off and build your dream home in a beautiful site - and I have a couple of constituents that have done this. They retired and went and built this gorgeous home on Roberts Island, moved into the home and realized after some time that they were getting sick. They realized that it was their water; they felt it was their water. Unfortunately what happened is that when the Department of Environment came and tested the water, the tests of course came back inconclusive. There's really nothing there, maybe a little high on aluminum or something silly like that, but ultimately they can't drink the water and there's really no recourse for them.

They went and built their own house; they hired a guy to dig a well and they're stuck today with a home that they really can't live in because they can't use the water. They can't sell the house because no one's going to want to buy it because of the water - and we didn't have a guideline to put in place to protect the homeowner in that respect.

I'm just wondering, what kind of help could I offer Dave and Monica to get them over this hump? They've sort of run into every possible wall they could possibly run into. They're completely at a stalemate and have been for probably a year now. I know it's tough to ask this question, but because of just having a guideline without any real regulations or a requirement for anyone to do anything, they now have a home that they can't do anything with - where could I point them because I sort of ran out of places to point them?

MS. SNOOK: What you describe sounds like a very difficult situation. I'm sure I don't have a quick answer. The only thing I can think of is it's a great learning opportunity for other people, and I see this more and more and it encourages me, where you see new lots in a rural area with the well in place, or a developer who had drilled several wells throughout the neighbourhood and tested them and checked on the flow rates. I think that it's a bit of a buyer beware - make sure that you've got water before you make a large, financial commitment.

In terms of the situation they're in, it's very difficult. I don't know if they have visited Bermuda where they install a cistern on the roof and have water delivered by truckload or in their case, barge, but it would be very expensive. For a lot of people in other

parts of the world, that's an everyday part of life, buying water. We're just so fortunate where we are - in most places in Nova Scotia there is an adequate supply.

MR. D'ENTREMONT: The frustrating part for them is that they put the well in and the water looked fine; it tested fine for the guidelines that we would have for water - but it still goes back to there's something wrong with the water. They put in a water filtration system at a substantial cost to them - I think it was probably the \$10,000 to \$12,000 range, and the water basically eats up the water system. The \$10,000 treatment system is now useless because the water ate it up, whatever is in that water. Anyway, what I'll do is probably talk to you after, or just pass that note off to you, so that maybe someone could be in contact. They did hit the wall with the Environment folks in Yarmouth. They've just brushed it off, at this point, because they still feel they're not being served by that office. I'm going to move on . . .

MADAM CHAIRMAN: You have 30 seconds.

MR. D'ENTREMONT: Geez, I don't know what to ask now. Ultimately, it's just going to be that we have a couple of communities whose water is contaminated because of lack of sewage treatment systems. One of them is Wedgeport, the Upper/Lower Wedgeport area, is going to need to have a system put in. I'm hoping that you work with Service Nova Scotia and Municipal Relations in helping them find dollars and ways to put a system in - and that's the Municipality of Argyle. Thank you.

MADAM CHAIRMAN: We'll turn it over to Mr. Epstein for the NDP caucus and, again, 14 minutes.

MR. HOWARD EPSTEIN: Thank you for the presentation today, it has been very interesting.

It has rained non-stop in our province for at least a week, but nonetheless I do want to ask you about drought. I wonder if you could give us the benefit of your views as to how exposed we are, in Nova Scotia, to drought events. In asking this I am mindful of the fact that just a few years ago there was a lot of concern in agricultural areas, prime agricultural areas, particularly in the Annapolis Valley, about the quantity of water available for agricultural purposes.

Although that passed, after a couple of years, nonetheless it was a real concern at the time and we're all aware of global climate change and how in many parts of the world the drought effects are hugely serious. I'm just wondering if you can give us your perspective on what the situation is in Nova Scotia, both as to our recent history and as to the prospects for the future.

MS. SNOOK: Just before this rainy period started we were experiencing quite dry weather and the Department of Natural Resources was concerned about forest fires, and

we're always concerned with the level in the reservoirs, thinking along the lines of drought. Then, of course, in Nova Scotia, wait 10 minutes and the weather changes and now the reservoirs are nicely recharged. However, the department does look at flood scenarios and drought scenarios quite routinely as part of our work, so that we're able to give advice, if need be, to Nova Scotians.

MR. EPSTEIN: What's your perspective over the last decade or two - what have we been seeing in terms of shortages of water from time to time?

MS. SNOOK: I am going to defer to David a little bit because he's more familiar with the department; he's been there for a long time.

MR. BRIGGINS: We have to prepare and plan for all situations including drought. That's why we do things like monitor the water table for changes through our observation wells across the province. That's why we carefully monitor the water that's being used by our approved water withdrawal users to ensure that they're not extracting more than what they're allowed in their approvals. That's why we are trying to get more information out there about the importance of conserving and protecting our water supplies because it's not a good situation to be in when you're in a drought scenario and you've got a huge demand on a limited supply of water.

We do work with our stakeholders, our water users, encouraging them to be wise in how they manage and use their water. We keep an eye open for situations where there may be problems developing and we have information available on our Web site and in other forms that we provide. Then, of course, when there are situations, we are involved with the stakeholders directly.

MR. EPSTEIN: I don't want to exaggerate this but, certainly, there was a period of several years, fairly recently, in which the Annapolis Valley really was concerned about the availability of water and that is our most productive agriculture land. I know at the time there was actually some talk about the possibility of even having a piping system to bring water from one part of the province to the Valley as a permanent piece of infrastructure. I don't know if the department has any views on whether this would be a useful thing to explore. In particular I'm wondering if there are triggering events or triggering signs that we should be keeping an eye on and I'm looking for some more specific examples or data about things that we should be concerned about.

MS. SNOOK: I think we'd have to get back to you on that. I'm not familiar with the piping system proposal and I'm sure there is some. . .

MR. EPSTEIN: It was just an idea that came up in general discussion at the time and appeared in the press, I think.

MS. SNOOK: I'd be happy to look into that for you and get back to you. In terms of the signs, I would defer to David. We monitor those wells, which are very indicators of the

water table and if there is any depletion occurring. There are obvious signs of drought everyone would see as well as the department and we would certainly put in whatever measure we could to conserve water at an appropriate time.

MR. EPSTEIN: Has the Department of Agriculture expressed concerns to you about this or not?

MS. SNOOK: Not to me yet, I'm too new, we're busy on other issues, but probably David.

MR. EPSTEIN: Well you, the department, in this case.

MR. BRIGGINS: Yes, we've worked with the Department of Agriculture in the past. It's something that we jointly try to prepare for and plan around. I was just going to mention in that particular case of the pipeline proposal or any type of proposal like that would actually require an approval from us for what would be considered a watercourse alteration. It's not like somebody can just decide that they're going to move water from one watercourse to another by constructing a ditch or a pipe. There are some controls in place.

MR. EPSTEIN: I think what came up at a very preliminary stage of an idea wouldn't be a private remedy but a piece of public infrastructure to protect the food supplies there.

I'll move to another topic, if I may. I want to ask a bit more about wells. Nationally, in Canada, only 12 per cent of the population is reliant on wells but that picture varies a great deal province to province. In Nova Scotia I think it's around 42 per cent of the population who are reliant on wells. This is, obviously, a significant portion of the population. Although our municipal water supply systems are excellent, certainly here in HRM, and I understand the problems with small municipalities struggling to upgrade and afford what they need, but certainly here in HRM where a large proportion of the population lives, the standards are excellent, the infrastructure is very good.

I'm wondering if you could help us understand the difference in the standards that prevail for municipal drinking water systems and wells? Could you start by comparing what it is that is tested for when a private, well owner comes to the local Department of Health and Wellness office with their sample of water from their well system for testing, with the range of what is tested for in a municipal system?

MS. SNOOK: Certainly you're right, that here in Atlantic Canada we have a high percentage of constituents who are on private wells, so it takes up a large part of the department's time ensuring that those wells are properly constructed and then encouraging people to get them tested regularly, to make sure there aren't any problems. I will defer to Mr. Briggins for what they test for.

MR. BRIGGINS: Usually the tests done for private wells are bacteria tests for coliform bacteria, as a minimum. We encourage and quite often people will get a chemical assessment, it's called a rapid chemical analysis package through the labs that do the chemistry testing. The test is for about 30 different parameters, costs somewhere in the \$100 to \$200 range, I think. It's not overly-expensive but it gives a good idea of the quality of the water by testing some of these basic parameters that give an indication if the water is safe to drink or not.

With private wells, there's no requirement that they have to test once a year or twice a year or 10 times a year. We recommend as a minimum that they do the bacteria tests every six months and once every year or two for chemicals. That's quite different from a municipal supply where they have to test weekly for bacteria and quarterly for some chemicals and annually for others and quite extensively.

MR. EPSTEIN: Heavy metals would also be on the municipal water system list?

MR. BRIGGINS: Yes.

MR. EPSTEIN: Is there any testing available in Nova Scotia, outside of municipal water systems, for heavy metals? What would a person have to do if they wanted to test their well water for metals?

MR. BRIGGINS: There are chemical testing labs in the province that do metals. It kinds of depends now if it's a more exotic or uncommon test, it may have to be done at another lab, outside the province. Usually our labs have some sort of arrangement in place with a sister lab where they can send these samples out. Most of the standard metals and hydrocarbons and those types of tests can be done here in the province.

MR. EPSTEIN: I think the basic cost for the bacteria testing for well water is around \$25 or \$35. As you pointed out, the rapid chemical assessment is \$100 to \$200, depending, I think, on where you are. Any idea what the metal testing would cost?

MR. BRIGGINS: Again it kind of depends on what you want to test for and how much you want to pay. There are different packages available through the labs but I know you can get a fairly extensive - I think it's called an EPA analysis that could be up to \$1,000. That's usually not something that a homeowner would do, that's usually a case of a municipal or industrial type supply.

MR. EPSTEIN: Yes, it's potentially very expensive, of course, but for some things may be worthwhile. As you pointed out, it's not a legislated requirement for private wells to be tested. My understanding is that some provinces have chosen to make drinking water standards a legislated requirement. Ontario and Alberta and I think Manitoba, and then I think there are a number of provinces - B.C. and Saskatchewan and Nova Scotia - that have gone with strategies. The last time I looked at this was a couple of years ago, that's where my list comes from, but I'm wondering if you're aware of an update since then. Have other

provinces now moved to put in place either strategies or legislative requirements, are you aware? I'll just remind you, the provinces I mentioned were Ontario, Alberta, Manitoba, British Columbia, Saskatchewan and Nova Scotia. I'm wondering if you're aware of any of the other provinces that have moved on this. Quebec, in particular, I'm wondering about.

MR. BRIGGINS: I'd have to double-check, but I don't think it has changed too much. I'm not sure how old your information is.

MR. EPSTEIN: Two years.

MR. BRIGGINS: In the last couple of years, I think it's about the same, but we can certainly check on that because we are involved at a national level. There is a committee on drinking water that meets on a regular basis. They're actually the group that sets the Canadian drinking water quality standards and we have a pretty good idea of which provinces are using those as legislated requirements.

MR. EPSTEIN: As an associated point, I'm wondering if you know how many boil water advisories were issued in Nova Scotia in the most recent year for which there would be data.

MR. BRIGGINS: Again, I don't have the number right off the top of my head. We can get that, because it's something that we've been tracking since 2002. We have a very extensive database of boil advisories so we can tell exactly how many are currently in place and how many have been issued over the year. We can certainly provide that information.

MR. EPSTEIN: I assume you would also know the duration for which they'd last, is that right? Could you provide that information as well?

MR. BRIGGINS: We certainly can.

MR. EPSTEIN: That would be great and I take it that would include location?

MR. BRIGGINS: Yes.

MR. EPSTEIN: That's good and even though you don't have the exact data with you at the moment - and I appreciate your offer to get it, that's very helpful - do you have any observation or recollection about locales, places that might regularly turn up on the boil water advisory list in Nova Scotia?

MR. BRIGGINS: Not that comes to mind. I know sometimes we do get a facility or an area that may have multiple boil advisories, but that also is tracked and recorded so we know that information.

MR. EPSTEIN: My recollection is that it would actually extend occasionally to some municipalities that do actually have municipal water infrastructure, is that right?

MADAM CHAIRMAN: Your time has elapsed though. Is there an answer to that first?

MS. SNOOK: I would just like to add something to that. The staff were kind enough to provide me with something about that and I had asked to review the boil water lists in the last week. We regulate 1,700 public drinking water supplies and of these supplies, approximately 50 are under a boil water advisory, but I would like to note that none of these are for municipal supplies, which is the answer to your question, I think. They all are for what is called a registered public drinking supply, i.e., a rural restaurant or a motel or campground. I did look at where they are and they, interestingly enough, are kind of distributed throughout the province in odd spots. Anyway, I'm hoping that is helpful.

MADAM CHAIRMAN: We will get the list from you later; that would be fine. Mr. Epstein, your time has elapsed, but thank you very much - interesting questions. I'd like to allow a few minutes, if you would like, Ms. Snook, just to wrap up or any final comments for the committee.

MS. SNOOK: I'd like to thank you for your interest in the Department of Environment and the Province of Nova Scotia's Water Strategy. I trust we've answered your questions and where they haven't been answered, we will be sure to follow up in a timely manner.

Like all Nova Scotians, we understand that water is essential to our health, our environment and our economy. We know it is not an unlimited resource and that it needs to be managed carefully. The Water Strategy, Water for Life, will help ensure this province's water resources are protected, properly used and kept safe. Through the Water Strategy, we recognize the need for effective tools and strategies for managing all of our water resources, not just our drinking water.

My department, the Department of Environment, is the lead government agency responsible for managing and allocating Nova Scotia's water resources. We have 75 inspectors in our Environmental Monitoring and Compliance Division who oversee water-related approvals issued by the Department of Environment. We also have a dedicated water and wastewater branch with an annual operating budget of over \$2 million, which is now aligned with the Water Strategy goals.

With the launch of Water for Life last December, Nova Scotia met its Environmental Goals and Sustainable Prosperity Act commitment and the commitment of the Canada Council of Ministers of the Environment Strategic Directions for Water. The strategy also supports the Council of the Federation Water Charter.

The Water for Life strategy will guide how we manage all of our water resources in ways that will benefit all Nova Scotians. It is a government-wide, 10-year plan for today and for the future. The 29 actions contained in the strategy will help us better understand the quality and quantity of our water, help us protect the quality and quantity of our water and help us engage others in caring for our water.

Just four months after its launch several Water Strategy initiatives are already underway or even complete. We are proud of the Water Strategy and we look forward to working with as many of our partners and collaborators, both within and outside of government, as we continue with its implementation. Thank you very much.

MADAM CHAIRMAN: Well thank you very much. It has been a very informative morning. I thank you for being here and we look forward to having you back again with other issues to discuss.

For the committee, there really is no business today, except to make note that we have received the auditor's business plan for 2011-12, so just take note of that, that it has been provided.

We will be following this meeting with a Subcommittee on Agenda and Procedures, so if the representatives would stay back for that.

Next week is, again, a big week for us because it's the Auditor General's Report that we'll be receiving. Just take note that we'll begin at 8:30 a.m. to 9:00 a.m., with a chance to review the report prior to the Auditor General coming in and giving us a more full description, in camera. Next week's meeting begins at 8:30 a.m.

With that, if I could have a motion to adjourn.

MR. MACKINNON: So moved.

MADAM CHAIRMAN: Thank you very much. We are adjourned.

[The committee adjourned at 10:57 a.m.]