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ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

STANDING COMMITTEE ON PUBLIC ACCOUNTS

Thursday 7 April 2005

COMITÉ PERMANENT DES COMPTES PUBLICS

Jeudi 7 avril 2005

The committee met at 0943 in committee room 1, following a closed session.

2004 ANNUAL REPORT, PROVINCIAL AUDITOR

MINISTRY OF THE ENVIRONMENT

Consideration of section 3.05, groundwater program.

The Chair (Mr. Norman W. Sterling): Welcome again, Ms. West. Would you like to introduce the two people sitting with you to the committee? Do you have some opening remarks that you'd like to make?

Ms. Virginia West: I do. It's a pleasure to be back again with you all. I do have at the table here Michael Williams, who's our assistant deputy minister of the operations division, and Joan Andrew, who's the assistant deputy minister of the integrated environmental planning division.

I also have other staff with me here in the room to assist in answering questions, and among them: Allan Gunn, assistant deputy minister of the corporate resources division; Jim Smith, the chief drinking water inspector and assistant deputy minister of the drinking water management division; and Carl Griffith, ADM of the environmental sciences and standards division. Hopefully, we'll be able to answer any questions or provide any information that you're looking for today. I do appreciate the opportunity to speak again with the standing committee on public accounts.

The Ministry of the Environment welcomes the work of the Provincial Auditor. We see his views of our groundwater protection program as an opportunity to improve the way we deliver our services.

Groundwater protection is a key part of the Ministry of the Environment's mandate to ensure clean, safe, livable communities. Roughly three million Ontarians rely upon groundwater for vital functions like drinking, farming and manufacturing. Many municipalities use groundwater as the principal source of their water supplies.

The ministry remains committed to implementing all of the recommendations of the O'Connor report. Several recommendations pertain to groundwater.

As I noted, we do have with us members of the ministry's senior executive team to assist in answering questions for you today.

I will address the Provincial Auditor's report by looking at four key areas: groundwater management planning, groundwater quality monitoring, managing groundwater for sustainability, and inspections and enforcement. The Auditor General has made a number of observations and recommendations in each of these areas. I will use my allotment of time to focus on a sampling of specific recommendations and the actions taken by the ministry in response. In general, the ministry is pleased to note that many of the recommendations in the report are being addressed in our development and implementation of a province-wide watershed-based source protection program.

I will begin with groundwater management planning. The Auditor General calls on the ministry to review existing source protection plans and measures and to consider developing an overall strategy to protect the province's groundwater resources. Source protection is currently being undertaken on a voluntary basis.

The government has done a great deal of work on the technical and implementation aspects of watershed-based source protection planning. On June 23, 2004, the government posted a draft proposed drinking water source protection act. The draft proposed legislation establishes a framework for undertaking plan development.

Risk assessment will be a key component of the planning process. The government will establish specific assessment reporting criteria for the regulation. A provincial threat assessment process is being developed. It will be supported by technical guidance documents prepared by our ministry and the Ministry of Natural Resources. The source protection program will also include a monitoring and public accountability component focusing on high-risk areas, including groundwater supplies.

The Auditor General calls for better integration of information from groundwater management studies, including those done by municipalities. In the view of the ministry, the main purpose of groundwater studies is to provide communities with the information they need to take action to protect their groundwater sources. We will look to strengthen external partnerships to manage and provide access to the information that is critical to support local and regional decision-making on source protection.

The Auditor General recommends the establishment of a province-wide framework for monitoring water takings so that continuously drawing down, or "mining," of aquifers is prevented. We are working with the Ministry of Northern Development and Mines to ensure that information produced by previous groundwater studies is integrated and built upon through subsequent aquifer mapping. As part of the design and implementation of the provincial groundwater monitoring network, draft aquifer maps were prepared for the province's 36 conservation authority watersheds and 10 consolidated planning areas.

With respect to farm nutrient management plans, the Auditor General recommends that the ministry review the compliance of farms that are required to complete plans by July 1, 2005. Further, the auditor recommends monitoring farms that are not required to submit a plan until after 2008 and identifying groundwater pollution sources on a timely basis so that remedial action can be taken before serious contamination occurs.

Farms are required under regulation 267 to submit nutrient management strategies and plans at different time frames, depending on the size of their operations. For example, new farms and farms expanding into or within the large category, producing 300 nutrient units or more, have been required to submit nutrient management plans since September 2003. Existing large farms are required to submit their strategies by July 1, 2005, and plans by December 1, 2005. All other farms are yet to be phased in under the regulation.

The ministry carries out incident response for all farms. This includes complaint response, spill response and advice or mediation relating to legislated and regulatory requirements. The ministry does this whether or not farms require nutrient management plans or strategies.

At this time, our officers are starting to carry out planned inspections at those farms currently subject to the requirements of the legislation. We will use this information to assist us in the development of a risk-based inspection program for large farm inspections. The risk assessment work is being carried out in conjunction with experts from the Ministry of Agriculture and Food and the Ontario Farm Environmental Coalition, an umbrella group consisting of the major farm organizations.

With respect to the recommendation regarding identifying groundwater pollution sources, risks to sources of municipal drinking water, including groundwater, will be identified using a provincially established threat assessment process.

The two advisory committees providing advice to the government on the implementation and technical aspects of source protection have developed requirements for undertaking an assessment report. These requirements will include standards for assessing both the quality and quantity of groundwater.

On the topic of monitoring groundwater quality, the Auditor General has made a number of observations about drinking water wells, groundwater from municipal works, groundwater from private wells and the provincial groundwater monitoring network. The auditor says the ministry should verify that people installing new wells are licensed well contractors.

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Ontario's standards under regulation 903 for well construction, maintenance and abandonment now match or exceed other leading jurisdictions in North America. The regulation states that all persons installing new wells are to be licensed well contractors.

The ministry uses several methods to clarify the requirements of the regulation and make it an effective tool for drinking water protection for private well owners. For example, the ministry updated and made available four fact sheets on well construction. In partnership with the Ontario Ground Water Association, we have held multiple information sessions on the regulation for well drillers. We intend to provide more plain-language information on the contents and requirements of the regulation.

The Auditor General calls for random inspections of new, existing and abandoned wells to ensure that they are properly installed, maintained and sealed.

Regulation 903 sets standards for well siting, construction materials and methods for all wells, including private wells. When a well is constructed or abandoned, a record, including the well location, must be submitted to the ministry. The ministry will put procedures in place to ensure that well records submitted are by licensed well drillers.

The ministry has also undertaken a pilot project within the Ottawa area in order to develop an overall compliance strategy to ensure wells are properly installed and maintained.

The Auditor General states that the ministry should consider expanding its monitoring program to include a sample of private wells in high-risk areas and consider informing potentially affected users in the area of any adverse raw water test results.

The ministry has successfully established a province-wide groundwater monitoring network to monitor changes in water supplies and water quality on a regional scale in the major aquifers in Ontario. We will further review the current network with partner municipalities and conservation authorities to identify more specific areas that could be subject to stress and potential water quality problems and to optimize the network to address such needs. Assessing groundwater quality and identifying risks will be a key component of the assessment process within the mandatory source protection planning framework. The government will establish assessment report criteria for the regulation.

We are currently developing a provincial threat assessment process that will support the assessment and identification process. Source protection planning will also include a monitoring component, focused on high-risk areas, including groundwater supplies.

Through the source protection planning process, information related to measurements of the quality and quantity of surface and groundwater will be made publicly available, particularly to the local citizens who may be consuming this groundwater.

In addition, landowners with private wells residing in sensitive areas will directly benefit from source protection planning and implementation measures. For example, education and outreach programs will be put in place to ensure that landowners are notified that they reside in a sensitive area. The development of education and outreach programs by the ministry is consistent with the recommendations made by Justice O'Connor on source protection.

The Auditor General calls on the ministry to review the concentrations of high-risk substances—such as E. coli and other fecal coliform bacteria—in raw water, determine the sources of the contamination and develop remedial strategies to correct the problem. Assessing the quality of groundwater and identifying risks to groundwater will be a key component of the assessment process within the source protection planning framework.

The Auditor General also devotes considerable attention to the sustainability of groundwater supplies. He calls on the ministry to ensure the sustainable use of groundwater resources by enhancing the assessment and evaluation process for applications for permits to take water.

The government has taken concrete steps that will enhance its assessment and evaluation process for applications for permits to take water. One fundamental component is ensuring that the ministry receives and retains the required hydrogeologic studies for new permit applications. We are also moving toward a watershed approach to assessing the cumulative impact on the ecosystem that could result from the taking of groundwater by multiple users.

The new water-taking and transfer regulation announced by the ministry on December 14, 2004, ensures that the ministry directors follow stringent safeguards before issuing permits to take water. This supports Justice O'Connor's recommendations in the report of the Walkerton inquiry. The regulation clearly spells out the factors the ministry must consider in assessing water-taking applications. These factors include the impact of proposed water-takings on the ecosystem, water availability, proposed uses of the water, water conservation, mandatory reporting of water-takings, and enhanced notification to municipalities and conservation authorities.

The Auditor General says the ministry should monitor the actual amounts of water taken by permit holders to verify that they are not extracting more water than they are entitled to. While many permit holders currently monitor their water-takings and report them at the expiry of their permit, the new water-taking and transfer regulation requires annual reporting of water-takings to the ministry.

The auditor calls on the ministry to follow up on expired permits to take water to determine whether former permit holders are still extracting groundwater. As part of the ministry's efforts to improve overall inspections, the ministry has adopted a risk-based approach for inspections. A project is currently underway to apply this approach to permits-to-take-water inspections that will include an assessment of expired permits.

The Auditor General has also expressed concerns about the ministry's efforts to inspect for and enforce compliance. He calls on the ministry to review the results of its proactive inspections to determine why they have not been as effective as inspections conducted by the environmental SWAT team in identifying threats to the environment and human health.

As part of the ministry's efforts to improve overall inspections, we conducted a district risk assessment pilot in 2003. The results of the pilot were assessed to determine the best approach to implementing a risk-based approach for proactive district inspections. Using the lessons learned from this pilot, the ministry's operations division has introduced a risk-based district inspection framework with a community-based approach. It will identify threats to the environment and human health. The Auditor General says the ministry should develop and implement a more effective risk-based model for its proactive inspection program to target areas that have the most potential for detrimental environmental impact.

The ministry determines inspection locations by reviewing and analyzing incident reports. These reports are categorized according to risk and reviewed further to determine whether a single-medium, multimedia or sitewide inspection is warranted. The ministry also plans to establish a database that will provide diagnostic capabilities to further enhance the risk framework.

To help ensure the timely disposition of cases of serious environmental violations, the Auditor General recommends reviewing current procedures for sending referral reports to the investigations and enforcement branch. The ministry acknowledges the need to ensure the timely disposition of cases. The ministry's investigations and enforcement branch has completed a review of current incident referral procedures.

The auditor recommends taking necessary steps to lay charges and start proceedings within the two-year time frame required by legislation, and procedures have been put in place to address this recommendation. Our investigations and enforcement branch has also completed a review of operational procedures to expedite the laying of charges for serious environmental offences.

I want to conclude my remarks by thanking the members of this committee for their review of the Auditor General's report on the ministry's groundwater program. The Ministry of the Environment will continue to meet its commitment to addressing the Auditor General's concerns.

We're now prepared to answer any questions that you may have.

The Chair: Thank you very much. Could I just ask for a clarification? At the top of page 5, it says the ministry has undertaken a pilot project within the Ottawa area. Could you clarify exactly where that is?

Ms. West: Certainly.

Mr. Richard Patten (Ottawa Centre): It's in your riding.

The Chair: It may be.

Ms. West: I can understand your interest in it, Chair. Michael, can you speak to that?

Mr. Michael Williams: Good morning, Mr. Chair and members of the committee. My name is Michael Williams.

What we're doing with Ottawa is we're looking at ensuring that in rural areas, the wells are constructed by licensed well drillers, so that when an individual comes in for a building permit or an amendment or something to do with respect to bylaws, the city of Ottawa does another check and balance in the system to make sure that the well on that property is installed by a licensed driller. It's a project that we're just wrapping up and trying to learn from, so we can look at perhaps working with some of the larger municipalities.

We also have a smaller one adjacent, in north Grenville, that I could speak to later if you'd like.

Mr. Patten: Good morning. It's good to see some old friends here for a while. I must have been around here too long.

Thank you for your report. I have a few questions to ask. One of them was a question that the Chair had asked just parenthetically. Presumably, the purpose of that pilot is that if there is an opportunity to engage with municipalities that have some responsibilities already, certainly around construction of wells or installations—industries, commercial, whatever it is—related to waterways or aquifers, is there a way in which the province and, I would imagine, even the federal government, if we're talking about rivers, can engage in a way that isn't overly burdensome or overlapping or confusing in being able to clearly enforce or assign or share the responsibility to protect the environment?

Ms. West: Absolutely. One of the things we want to continue to improve upon or recognize is that where there are shared jurisdictions, those who are subject to the regulations don't have to concern themselves so much about who's doing what, but that we try to integrate our approach with the other jurisdiction. Obviously, in this case, it's the municipality that has related regulatory responsibilities—at the federal level as well, on other files; we are also trying to integrate that.

Michael, I don't know if you want to talk a little bit more about the city of Ottawa.

Mr. Williams: As I mentioned previously, we looked at the city of Ottawa's potential partnership for one of those pilots. The other thing that we did was with Oxford on the Rideau and North Grenville. We actually went a little further with that one, whereby in previous years their building and bylaw enforcement staff were designated as officers under our legislation. They would go out and they would actually conduct inspections relative to what the homeowners had there with respect to water supplies: their wells, how they were constructed, whether the people were licensed when they came in to do it. We found that there are a number of municipalities, ranging from the small rural ones to the larger urban ones, that are willing to partner with us like that. So we're looking at whether there's some potential to formalize some of those arrangements in the future.

The other thing that we wouldn't want to lose sight of is there are associations, for example, the Ontario Ground Water Association, comprising all the licensed well drillers across the province, and we work with them in partnership too, to make sure there are materials distributed to homeowners.

For example, if you'll permit me, I have a kit here called the Well Aware kit, which consists of a video that is produced, along with brochures and fact sheets. I'd be pleased to leave it with the committee. Those are in plain English for the landowners to take a look at and see what their responsibilities are with respect to wells. That is distributed by the Ontario Ground Water Association members. Whenever a well is drilled, they're required to leave that with the homeowner too. So there are a number of different ways that we can partner to help rural landowners be more aware of their responsibilities.

Mr. Patten: I have a few questions related to the aquifer mapping. There are a number of ministries that are interfacing. I was reading that the Ministry of Northern Development and Mines, for example, had done some mapping even in the 1970s. MNR is involved, the Ministry of the Environment is involved, and the Ministry of Agriculture is involved, which I'm sure is the basis on which there would be another interministerial committee to look at this.

Is there a central place for the database? Is it shared? If it is shared, how do you interface with the data you have, some of which is historic; the updates in computer programs' capacity to monitor, presumably, which also means not just drilling a hole once; how do you know the replenishment factor of groundwater and the quality of it and all that kind of thing?

Ms. West: I'm going to ask Carl Griffith to respond to that specifically. Let me just acknowledge, as you've acknowledged, that in terms of addressing an issue like groundwater protection, this goes across ministries. Even the Well Aware program was done in partnership with the Ministry of Health as well. So we are aware of that. We have to work hard at those integrations, making sure that we don't do things twice, but also don't leave gaps.

Carl, maybe I can ask you to speak specifically to the aquifer mapping program.

Mr. Carl Griffith: Good morning. My name is Carl Griffith. Yes, we are working very closely with the Ministry of Northern Development and Mines and other agencies and groups that have information that will feed into our aquifer mapping or our understanding of groundwater quality and quantity.

In the deputy's opening comments, she made reference to the fact that right now we have draft aquifer maps across 36 conservation authorities and 10 municipalities. Ten of those have been finalized and are on the ministry's Web site now. We hope that the remainder of those will be done in late 2005 or early 2006.

I would also like to make reference to the fact that two very important studies have been completed and are on the ministry's Web site. I just need to refer to my notes. They are the Hydrogeology of Southern Ontario, and an assessment of the groundwater resources of southern Ontario. Again, those are currently up on our Web site, and we make every possible effort to share this information with those who need it.

Mr. Patten: Presumably, some groundwater locations replenish themselves more rapidly than others. How can you monitor that, especially with permits that enable it? Presumably, that kind of analysis is done when or if companies are given permits to extract water which isn't surface water; in other words, it's groundwater.

Mr. Griffith: If I could speak to the first part of your question, we do have the provincial groundwater monitoring network in place, which does monitor change in water quantity and water quality due particularly to land use or land development matters. We have over 380 instrumented wells across the province right now, and that is across the 36 conservation authority areas and 10 municipalities.

Water quantity is measured on a real-time basis, and for water quality, we take samples twice a year. We are currently analyzing the water quality information that is coming in.

Mr. Patten: Is that from your own drillings or a combination of wells and—

Mr. Griffith: It's a combination of using historical wells that we've had to take measures—I'm really getting a little out of my depth in terms of exactly what we did to make those wells usable for monitoring. For some abandoned ones, we had to effect measures to make them usable. Some had to be redrilled.

We're also looking to add, I think, about 32 new wells over the next year, primarily in northern Ontario.

Mr. Patten: The more we study these, what is some of the anecdotal learning that we've found? In other words, I'm thinking it would be interesting to know—there are probably some small aquifers, and there may be some large ones that extend well beyond, maybe through two municipalities. They may go 10 miles; they may go 200 miles. What kinds of things are you discovering as you research all this?

Mr. Griffith: Could I ask my colleague Ed Piché to come to the table, please?

Mr. Ed Piché: Good morning. I'm Edward Piché. I'm the director of the environmental monitoring and reporting branch.

In particular, as you can probably appreciate, the first thing we're learning is the exact location of many of these wells. Some of these wells had been abandoned for some considerable period of time. They were, for the most part, dysfunctional. As I'm sure anyone who's familiar with the complexities of groundwater knows, it's a somewhat inexact science and it's an evolving science; to some extent, perhaps, even an art. I guess one of the lessons that we're learning is that Ontario is blessed with a very, very significant amount of water, good water for the most part, except for perhaps a few areas.

The partnership communities that we're involved in have worked very co-operatively and harmoniously, as I say, in locating the wells, in meticulously refurbishing the wells and in installing state-of-the-art monitoring equipment which, I might add, actually monitors the quantity of water in real time, stores it electronically and then telemeters it into a central agency, so the next time there are any major climatic changes or other land use disruptive changes or significant changes, we will be able to see that in real time.

I guess the other lesson that we've learned is that it's expensive to do this properly. We consistently underestimate the amount of energy, time and resources to find them, to refurbish them and to maintain them. We're extraordinarily fortunate there, because the conservation authorities and municipalities have been more than willing to provide necessary people resources to help us do this. So I guess lots of good water; found the wells; a significant commitment of time and energy to refurbish them; and good feedback on their success.

As a consequence, we're now expanding the program to other parts of Ontario where there are not conservation authorities, and looking at other arrangements, either with other ministries or municipalities or other willing and competent associations, so that we can expand.

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Mr. Patten: I'll pass it on to my colleagues, but it seems to me we have the makings of a possibly tremendous documentary or feature film. Even when we talk about the impact of Walkerton and the pressure it has placed on all of us, particularly your ministry, it is certainly extracting tremendous amounts of resources, which makes it difficult. I sometimes think that risk-management assessment is often—well, when you don't have all the money you really want, you've got to prioritize and get after those areas that you estimate to have potential impact on populations or on the natural environment itself.

Ms. West: I agree. I know, Mr. Patten—you may want to pass it on at some point—you asked a question with respect to the recharging of aquifers. We do have someone who could speak to that, if you want, or later on if you want to go back to that question.

Mr. Patten: I was interested. I think it's an important question, because we need to know whether we have the sustainability, and the technology to measure that sustainability in replacement factors.

Ms. West: Ian Smith is our director for source water protection. Perhaps Ian can speak to that.

Mr. Ian Smith: In terms of recharge to the aquifer, in co-operation with the Ministry of Natural Resources, we've recently launched with the conservation authorities—so that would cover most of southern Ontario—a comprehensive water budget development program that will include determining the amount of recharge into the groundwater, and also those areas on the landscape that contribute the maximum amount of that recharge, because in some areas it's mostly runoff and in other areas it infiltrates and becomes groundwater. We'll feed that information into the source protection planning process so that we protect those recharge areas, to make sure that the aquifer that people are using for their drink-

ing water is sustainable. We anticipate that that information will also be useful for our permit for the takewater program, to ensure that our permit provisions are protective of the resource as well.

Mr. Patten: Just one final question on that. I was reading somewhere recently that Mexico City, for example, is sinking because it had paved over so much of the poor part of the city, which was sitting on this aquifer, that it was depleting the level of the water table. Is that part of what you do as well? Are you able to monitor or measure or test or take samples, not just in areas outside that are obvious, in the agricultural areas or near the cities, but also within cities?

Mr. Smith: There are computer models that the water budget people use to estimate based on what they call the percent hardening, which would be the paving. Deforestation is also a piece of the hardening aspect. They can use those models to try and get a sense, based on the soil type and the amount of hardening, of how much of the rainfall runs off versus how much recharges. Then they integrate all that information over the surface that contributes to that particular aquifer, which actually gets quite complicated, because of course there are shallow aquifers and deep aquifers, and then they're connected to each other. Part of our weakness in the information is understanding the connections between the shallow aquifers, which we understand fairly well, and the deeper aquifers, which are much more difficult to study.

Mr. Patten: My final comment is, it seems to me there's an incredible opportunity for public education here that would truly be fascinating. Certainly, I think students would find this interesting. That's why we get a lot of interest in the environment from high school students and even elementary school students. But I think the general public, learning some of the intricacies and fragility of our environment and how it's all interrelated, above surface and below surface, would be—of course, I guess it's for the government to decide to put some resources in that area. The more I learn about it, the more I think, "Wow, this is really fascinating and very important, how everything is interconnected."

The Chair: I have Mr. Zimmer next. How long are you going to be, David? Do you have many questions? Would you rather I rotate first?

Mr. David Zimmer (Willowdale): At your pleasure, Mr. Chair

The Chair: I'm going to ask Julia next, and then I'll go to Marilyn. The Liberals have used approximately 15 minutes.

Mrs. Julia Munro (York North): Thank you for coming in today. Actually, some of the questions Mr. Patten asked have stimulated me to think, "Oh, wait a minute, there's another idea here."

On the last point that was referenced, with regard to the opportunities for public education, I think most people understand surface water; I'm not sure that as many people understand groundwater. I wondered whether within the ministry there's conversation with regard to the public perception of one over the other and whether, from a ministry perspective, you would place a priority between those two.

Ms. West: In terms of public education or concern for risk?

Mrs. Munro: Concern for understanding or preservation or in terms of fragility, which I understand is greater in groundwater than in surface water. Those are the two questions.

Ms. West: Maybe, first of all, I can just respond broadly to education and outreach, and then invite Ian or Joan—we'll start with Joan—to respond to your question about the differences between the two.

One of the things we did try to do in responding to Justice O'Connor's recommendations on addressing source water protection is recognize that because it is a complex area and there are lots of partners in terms of addressing the problems, education and outreach are an important part. So we did quite deliberately think of trying to invest some modest resources as well in education and outreach.

I think the comments that have been made are quite valid in terms of educating broadly the general public—obviously the regulated communities—as to what their concerns are, what their responsibilities are and how they can address them. We are trying to take that into account as we move forward with the framework and with implementation.

With respect to the approach to groundwater versus surface water, I'm going to invite Joan Andrew to speak to that first, and she can invite whoever she wants.

Ms. Joan Andrew: We did work with Conservation Ontario specifically, and they produced a brochure that they were fairly successful in getting as an insert in a lot of daily newspapers last fall. I think it was on source protection, but it was particularly referencing both surface water and groundwater. They've been doing some of that work and trying to do more outreach in local communities across the province related to that.

As we move forward on source protection planning, part of what we are hoping to be able to do in providing resources, and what the Minister of Natural Resources and our minister announced last December in providing resources to conservation authorities, is to start giving conservation authorities the capacity to hire more scientific expertise, to understand better some of the linkages between surface water and groundwater and to understand some of the complexities.

I'll pass it over to Ian in a minute, but also the technical experts committee that the ministry had over the last year looking at source protection was made up of scientists, academics and practitioners who had done some of this work. I think, a little bit, the more we understand, the more we learn what we don't understand about water, even from a science basis. It's not so much government, but the scientific community. Also, there are breakthroughs all the time about new ways to do modelling and to look at these. I can turn it over to Ian for some of the details.

Mr. Smith: Actually, the note that my boss just handed me was a reminder that we also worked with

Pollution Probe on a primer on source protection which was released in mass distribution last summer. It included a section aimed at the public, intended to educate on the importance—actually, I hearken to a concept in cottage country, which is, they don't make any more shoreline. We really don't make any more groundwater either. It's a very fragile resource, and our technical experts committee, which worked with us on source protection, recommended that we treat groundwater as essentially a finite resource, because we do understand it so poorly. They did highlight that we've spent many, many years protecting surface water, which replenishes itself quite quickly, and they did recommend that we put a very strong priority on protection policies for groundwater, which of course is what we're intending to do with our source protection program. It's intended to highlight those groundwater areas that are sensitive or vulnerable and then to bring forward protection policies and plans to protect those so that they will be there in—it's important to recognize that much of the groundwater that people use is 30, 40 or 100 years old. We need to be putting policies in place today to ensure that that water is there if we need it 30, 40 or 100 years in the future.

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Mrs. Munro: I appreciate your response. It is why I used the word "fragility," because I felt that was something that you've responded to as well.

In the earlier questioning, there was discussion about the wells that are being monitored across the province. I wondered if you could give us—I realize it's early in the process—a sense of the kinds of projections you're looking for from monitoring these wells over a period of time. I presume we're talking about both quality and quantity. I wonder if you could give some plain-language ideas about what you might expect to see after you've watched five or maybe 10 years—whatever time frames are appropriate.

Ms. Andrew: I'll turn it over to Ed in a minute. I think we're looking at both quantity and quality issues, but also at whether or not and how much some basic things like phosphates and nitrates have permeated into the groundwater. I'll turn it over to Mr. Piché.

Mr. Piché: I'm Ed Piché, director, environmental monitoring and reporting branch.

I'd like to backtrack a little bit, because there is a linkage between surface water and aquifers. The key thing is the depth of the aquifer and the soil conditions governing the capacity of the surface water, for the most part, to percolate or move down into the aquifer. If it's a shallow aquifer, it can be years to decades; if it's a deep aquifer, it can be tens of thousands of years.

So there is a linkage between surface water and groundwater. It depends on, as I said, time and the structure of the earth over top of the aquifer. So when you're looking at what's more important, you really want to protect the surface water as best you can, because ultimately that surface water gets into or permeates into the aquifer. It's just a question of time. Fortuitously, if

it's deep, you have a long, long period of time, but you still have to be careful.

What are we looking to monitor for? As Ms. Andrew said, we're looking for infiltration of materials, substances or chemicals that are not desirable, that will adulterate or contaminate that water, whatever they may be, whether it's radionuclides, biological agents, chemical agents or whatever. We're also looking for the impact of climatological change: If we have a drought, what impact will that drought have, especially on shallow aquifers, if those aquifers feed people for industry, animal husbandry or just general, everyday domestic use?

It's complicated. It's linked together. We're monitoring it in real time so we can provide the very best information to our society, for the decision-makers to make timely and effective decisions.

Mrs. Munro: I have one question that I'll use at this point. You made reference in your remarks to working with well drillers. I just have a question about dug wells. Do you have any idea of the percentage of dug wells, and what kind of impact they have versus drilled wells? Are dug well diggers now obsolete?

Ms. West: Good question. I'm just seeing who might be able to help respond to that. I'll bring back Mr. Piché.

Mr. Piché: Let me understand the question again. You want to know if there is a preference for one or the other, or whether one is obsolete or not?

Mrs. Munro: Yes, basically, because in the remarks there's only reference made to drilled wells and well drillers. I thought, "OK. Where are we in terms of dug wells?"

Mr. Piché: I'd like to take us back a little bit, if we can. A post-Walkerton concern of the broader society is to provide water that has the highest level of integrity. So in the construction of a well, whatever construction method is used, the intention is to provide the highest level of integrity of water. When the professional comes to the site, they bring their training and judgment and experience, whichever method they use, to construct a well that will give the highest level of integrity of that water. So that's the premise that I would use. Now, whether it's one method or another—my area of expertise is not in the construction of wells—what I can tell you is that that's the whole purpose of the regulation, to establish and maintain an industry in Ontario that is trained and educated to provide the highest level of integrity.

Interjection.

Mr. Piché: I'm getting some counselling here, some wise counselling.

Do we track the frequency of each? Yes, we do. Documentation is filed that tells us explicit details. In fact, it's an interesting history lesson here. The early pioneers were obviously very wise, because they tracked, as you drill down, the soil type and structure. And it's that very body of evidence, where there are 600,000-plus records, that allowed us to publish this report that Mr. Griffith referred to earlier that tells us about the extent and

quality and quantity of groundwater. Without that data and very skilled and trained individuals, we wouldn't have been able to do that. So yes, we are tracking that.

The Chair: I'm going to ask Marilyn next. But does anybody have any specific questions or supplementaries on that that they wanted to—it's difficult here when you're trying to break up the time and trying to keep it somewhat subject-oriented.

Marilyn, go ahead.

Ms. Marilyn Churley (Toronto–Danforth): I have a number of questions, but I thought I would focus a little bit on aggregates and the water-taking aspects of that. Before you came in, we were talking a bit about this with the Auditor General. I wanted some clarification around water-taking for aggregates because he does say in his report that it's one of the very large water-takers. Do you have somebody here who could do that?

Ms. West: Are you talking about the new policy with respect to—

Ms. Churley: Maybe what I should do is pose my questions and then figure out who can best answer them.

One of the things he said is that although it's one of the largest water-takers, it's not such a big problem because it puts back into the ground, it pumps the water, after the dewatering, back in. But of course that's not, as I said to him—and I didn't mean to imply it was simple. As you know, it's much more complicated than that. I have a couple of questions around the environmental impacts.

First of all, I'd like to ask, do you have any idea of the range of water-taking permits, like litres per day, for large aggregate operations in southern Ontario? It's in the millions of litres per day; is that correct?

Ms. West: Michael Williams would have that information

Mr. Williams: Yes, I do have that information. I'll refer to my notes, if you don't mind.

Ms. Churley: That's fine. I'm referring to mine too.

Mr. Williams: When we look at quarry dewatering and aggregate washing—and I believe that's what we're talking about, essentially, with respect to pits and quarries and the operations there—the daily average, and it's expressed in terms of millions of litres, for dewatering quarries is approximately 10 million litres.

Ms. Churley: That's per day, right?

Mr. Williams: Per day. For aggregate washing, it's 8.8.

Ms. Churley: That's 8.8 per day.

Mr. Williams: That's millions of litres on a daily average.

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Ms. Churley: I just wanted to get some clarification around the implications from what you know and why this kind of water-taking does damage the groundwater systems. It isn't as simple as, you take it out, you put it back in, because we know that the aggregate deposits act as underground reservoirs, and once the aggregate is excavated, the water storage capacity is lost. As you know—I got this from a lot of reports—pumping ground-

water into injection wells that they're starting to use will artificially maintain the wetlands while operations are underway.

I'm just giving you some of the facts around this so you can explain, actually, why it's not benign—taking water out in these activities.

Mr. Williams: OK. Let's give it a try. We'll see how we can do with it.

I take note of your comment that it's not benign with respect to these activities, and I think that's a really important observation. The role of our ministry and our staff in the field offices when we deal with permits for aggregate operations, whether they're dewatering quarries or whether they're washing of aggregate—we work with the Ministry of Natural Resources. The Ministry of Natural Resources licenses aggregate operations, and one of the parts to their licensing is ensuring that our ministry and our staff in the field office who review aggregate licence applications send in their comments to MNR, to make sure that the environmental impacts of those operations are minimized.

As you suggest, there's no such thing as no environmental impact with respect to a water withdrawal or putting water back. I would go back to one of my colleagues who spoke a few minutes earlier about it. One of the most important things on this is to ensure that there isn't contamination as a result of the washing of the aggregate and so on, that there are proper retention ponds, that there are settlement ponds, so that the aggregate washing operations don't impact the water as that water is returned to the natural environment. We do that through terms and conditions on our permits to take water. We also make that information available to MNR when they issue the aggregates licences.

That's one of the ways that we try to have controls on those kind of water-takings and minimize the environmental impacts of them.

The Chair: Could I interject here? The number you're quoting here is much smaller than the number which we received from the auditor, in the range of 1% of what we've heard before. Can you check that number? You said 10 million.

Mr. Williams: Millions of litres, yes.

The Chair: That's 10 million litres a day?

Mr. Williams: The daily average for dewatering of quarries is 10 million litres, and 8.8 million litres for aggregate washing. Now, that's the average for those particular uses. The other numbers that we will have—and I have some other numbers that I'll share with the committee—is what's the permitted maximum volume that could be taken. That's a different set of numbers. For example, what I believe the committee may have—I'm sorry; I'm referring to my notes here—is dewatering, which includes aggregates, pits and quarries, and construction projects. I'm sorry; I don't know the breakdown between them. The figure I have is 232 permits issued for those, and there are 2.08 billion litres per day. That's what the paper permit actually permits. Those are the numbers that are on the paper permit. So I just have the

breakdown that I was sharing: the millions of litres per day for quarry dewatering and aggregate washing. I think that's where the difference is.

Ms. Churley: You'll add that on to my time.

The Chair: Yes, I will.

We've talked about nine billion litres a day in the auditor's report.

Mr. Williams: Yes.

The Chair: Then, of that, we were given to understand that two billion litres a day were involved with the aggregate industry. So in trying to estimate what the percentages are, I'm thinking to myself, and I guess other members of the committee are thinking, "Well, approximately 20%, 25% of the water that is being used is by the aggregate industry." It's sort of a contextual argument.

Ms. West: I understand the need to have that context. I'm just wondering, as people try to compare numbers, can we just, behind, have someone go and talk to the auditor and see—

Mr. Jim McCarter: Just by the looking, the number that I gave the committee, as far as a breakdown of the nine billion litres, I'd indicated that, surprisingly to us, one of the big uses was the gravel pit quarries. In permits, it was well over a billion litres a day. We didn't have the data on the actual takings. But we were indicating that you're up 10%, 20% from the aggregates with respect to permits.

The Chair: So that's permits. But actual use is much, much less.

Mr. Williams: The actual use would be less, but we don't know the actual amounts—

Mr. McCarter: We didn't have the data during the audit either.

Ms. West: Let me just ask Joan to speak to that, because this is part of the evolution of the program in terms of collecting data on actual use.

Ms. Andrew: The new permit to take water regulation that has just come into effect requires people to track their actual use and report to us in phases, starting this July. So as of July, municipalities and water bottlers start tracking, and report to us as of next March. Then it phases in over a period of time, giving agriculture a few more years.

The first phase is municipal drinking water systems, major industrial dischargers, which I think for us is regulated under MISA, and water-takers that were impacted by the moratorium. They have to start monitoring on July 1, 2005, and reporting by March 31, 2006. The next phase is other industrial/commercial sectors and wildlife conservation, which start monitoring on January 1, 2006, with reports by March 31, 2007. Then agricultural takings and others start monitoring in January 2007 and reporting by March 2008. That will give us much better data on the actual use, as opposed to the permitted amounts.

Ms. Churley: I think that answers one of the other questions I had, that we don't know the exact number, and that work is being done. But that's one of the prob-

lems that has been identified in terms of water-taking overall, that there are still a lot of questions unanswered. I understand the ministry is working on that.

The Chair: Could we just ask for a response?

Ms. Churley: Oh, sure.

Mr. Williams: If I might, Mr. Chair. I apologize, Ms. Churley, if I've misspoken in any way to make this misleading. I want to clarify that when the discussion was about aggregates, dewatering and putting stuff back on to the ground and that, the numbers I was referring to were a representative sample. So what would happen in a quarry in a day to dewater a quarry, as a representative sample, was 10 million—not across the province for all of them. The Auditor General's figures that we have—when I used the B word to talk about billions, I wanted people to understand that that is the global number that we have for all those kinds of operations, which includes construction projects. I'm very sorry.

Ms. Churley: I did understand that, but I guess a clarification was good. For me the bottom line is, it's an awful lot of water. The auditor himself said that he was surprised at how big a piece of the water-taking it is. The reason why I'm asking about it is because of concern that there's not a lot of understanding about how detrimental this can be to the environment.

I was starting to say that in some cases—and I get this from the report of the Environmental Commissioner, who, for instance, as you know, has twice brought this issue up, as well as the Pembina Institute. So it's a major concern that I don't think we're dealing with very well. I mentioned that the water storage capacity is lost as well once the aggregate is gone. But in some cases, as the Environmental Commissioner points out, a large portion of a stream's volume is derived from groundwater, which maintains a base flow for streams, and then base flow is important as it often ensures that stream flow is maintained, even in the very dry summer season. Hence, land disturbance from pit and quarry activities can negatively affect flow, even if the excavation doesn't extend beyond the water table.

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I'm just bringing this out more for the record, because I think we would all agree—and it's really, really important that we all understand—that it is not benign. When you take that large amount of water from underneath the groundwater table, then there are real consequences. It's just not a matter of taking it out and putting it back in and there's no problem. You would agree with that?

Ms. West: I think it was Ian who may have started off some of his comments by saying he's learned to know how much we don't know. You're quite right. This is an area that we will continue to learn more about. But certainly the principle, as you have stated it, Ms. Churley, is probably quite true.

Ms. Churley: I'm just wondering if I can follow up on those questions, because of my concern around this area. The provincial policy statement basically gives carte blanche to aggregate interests. That doesn't reconcile with the plans that you and the minister talk about for

source water protection. So it's source water or aggregates in accordance with the provincial policy statement.

I asked in committee during the Planning Act clauseby-clause that source water legislation be given paramount status, but that of course was not accepted. I believe if it had been, it would have helped deal with the prospect that aggregates will interrupt and damage the groundwater systems.

I guess my question would be, who is going to trump in the end, source water protection or the aggregates, and will it be written into source water protection legislation? Because right now my concern is, aggregates trump in the provincial policy plans, and it goes totally against the grain of what we're saying in terms of source water protection.

Ms. West: I'm going to ask Ms. Andrew to respond to that. Obviously, what we do try to do is work across the ministries and the various initiatives to see how they relate to one another. With respect to the provincial policy statement or others, certainly we have brought to the fore the connections and linkages to source water protection.

Ms. Andrew: Obviously, the formal legislation on source protection hasn't been introduced in the Legislature, so I can't presume to know exactly what would be in that, but we have been working at a staff level to work with ministries and to reflect Commissioner O'Connor's recommendation that source protection legislation would have paramountcy where that was necessary. So we have been working specifically with the Ministry of Natural Resources, the Ministry of Municipal Affairs and Housing and other ministries to ensure that where human health and environmental impacts were necessary, source protection would have paramountcy as we move forward from a policy point of view.

Ms. Churley: I guess you're saying that at the end of the day how that's dealt with within the legislation will be more of a political decision.

Ms. Andrew: I'm just saying that the legislation hasn't been formally introduced, so I can't presume to know exactly what would be in it.

Ms. Churley: But you would have had input in what-

Ms. Andrew: All the policy work that's gone on to date is about source protection having paramountcy where it needs to for human health and environmental reasons

Ms. Churley: And that's all you can say at this point.

Can I ask you about the—give me a second, because I started at the end here. Perhaps we can move on, Mr. Chair, if you like, and then I can come back to another element of what I want to ask about.

The Chair: OK. Mr. Zimmer?

Mr. Zimmer: I listened with interest to your opening remarks, and it sounds to me as if there's a paradigm shift underway in the way in which we manage these environmental issues. In fact, in your remarks someone used the expressions "real-time management," "integration of information systems," "monitoring of informa-

tion systems," "access to information," "the critical sharing of the information," "reporting" and so on. Another remark: 36 watershed authorities and 10 consolidated planning areas.

My question has to do with an issue that I've been interested in for the last year or so, and it comes up whenever we have chats with ministries. That's the challenge of managing this new environment from an IT, information technology, point of view. I guess in your inter-deputy minister meetings you've heard of the various horror shows on IT issues that range from the comic to the horrific. What are your IT, information technology, management systems challenges? Are you confident that you're going to meet them?

Two particular questions: Can you give me some sense of what the IT budget was at the ministry, say in the days pre-Walkerton, what it is now and on a going-forward basis where you expect it's going to go in the next couple of years? I have quite a list of folks who have accompanied you here today. Is there anyone here who is specifically responsible for the management of the IT file?

Ms. West: First of all, I don't have anyone here who is specifically responsible for the management of the IT file, but we have people who can speak to it at a certain level, and if you want more information, we can follow up.

Let me just say with respect to data and information and technology support, that is a very important component of making this program successful, making any program successful these days, but particularly one that is so complicated, that carries responsibility information across ministries and across jurisdictions and to other partners in the community. We believe, as we've talked about knowledge and information and what we do and don't know, that data collection, understanding that as information and being able to communicate it well and to continue to keep it up-to-date, is an important element of moving forward.

As you may know as well, in terms of the organizational structure of IT within government now, it's done on a cluster basis. The cluster that we're included in is the one that includes the Ministry of Natural Resources, the Ministry of Northern Development and Mines and the Ministry of Agriculture and Food. In terms of the program area, it's an appropriate cluster of responsibility. So we do take advantage of that in terms of looking at the individual programs that support areas within those related ministries and seeing how we can link to and integrate with and rely upon that. Certainly GIS is an area that the Ministry of Natural Resources is doing an awful lot of work on. We look at how we can connect into that and make that better and more robust in terms of the reliance of the public, as well as ministries' program development. I agree, IT is a very important part of it. Over the past few years, as part of our response to O'Connor's recommendations, information systems is a

Allan Gunn, who is our CAO and assistant deputy minister of corporate management, is at the table as well and can speak to that. I'm not sure that he can speak specifically to the issues on the budget at this time—we can follow up on that—because it has been changed in terms of how we organizationally structure for supporting IT within the cluster these days.

As a general comment again, it creates an important issue. It's an issue that we have to address in a very careful way. We've done it, I think, in an incremental way, which is probably the best approach in terms of getting something locked down but accessible for other linkages, because certainly I've been involved in programs that are much larger than that that are riskier in terms of actual success and implementation. Allan, can I ask you to—

Mr. Allan Gunn: Certainly. Good morning, Mr. Chair. I'm Allan Gunn, the CAO with the ministry. I'd have probably the most interface with our chief information officer who looks over the four ministries.

Let me first talk about the budget. I don't have the pre-2000 technology budget with me, but I can certainly table that with the committee as a follow-up.

Mr. Zimmer: For just some anecdotal sort of sense—

Mr. Gunn: The sense is, proportionately there's more money spent on technology now and more attention paid to technology. The technology funding that we address has a couple of components to it. It fluctuates from year to year, because some of the technology costs are one-time in nature in terms of the development of projects that are time-limited and then what you have after that is the ongoing maintenance and support and operating on it, depending on the nature of it.

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One of the things I could say in general, though, is that in the period of time you're talking about, what we have done in terms of a technological strategy is develop a technology platform referred to as Environet. Environet is an attempt to integrate all of the databases using a standard approach, a standard architecture, a standard integration that, as new systems come along and as they're developed, you look first to what exists now and integrate and build into that. Because we do work in a cluster across the environment and natural resources ministries, we don't develop something unique to the Ministry of the Environment if it already exists within the cluster, but you build on it.

For example, over the past two or three years, we've been working on developing the integrated drinking water information management system that has been building modules to respond to the regulatory requirements, to be able to capture information from the laboratories as the testing is done, moving it through the system to capture information about the municipalities who are the major waterworks owners, taking those components and integrating them from the beginning to the end, and using a similar platform for all of those.

So during the past couple of years, certainly in a post-2000 environment, the development costs have been higher than the ongoing maintenance costs, and we continue to then add on in modules to expand the technology, the technology based. I think the biggest piece of that that's been the advantage to us in managing the resources is putting all the resources into the technology cluster and using OPS-wide technology supports through the chief information officer of Ontario and their supports at Management Board to focus on the technical supports—the wires in the boxes, if you like—to keep it going, and keeping the focus within the cluster on the specific needs of the programs that focus directly with the delivery of whatever the policy needs in support at the time.

Mr. Zimmer: Just to follow up with a couple of short questions, we're all agreed that one of the elements here is real-time management just because of the nature of things that affect the environment and how quickly they come on.

Three questions: I'm assuming, then, you agree that if all of these good things are going to happen, one of the things it's predicated on is good IT and very fast IT reaction turnaround time, if you need new IT programs. So my question then is, if you do find that you need some unique IT initiatives that are not available in the cluster, what's the turnaround time for getting those up and running?

My last question is just an opinion, and it might be awkward. Are you prepared to say today how confident you are that, in a reasonable case scenario, the ministry is up to the IT challenge, or the government is up to the IT challenge? Because I've been here, a new member, for about a year and a half, and I hear about these IT horror shows. I have a sense that sometimes the best plans of men and mortals and politicians and civil servants flounder on the rocks of this IT issue.

Ms. West: I'm going to ask Allan to respond just as I comment to the last comment that you had.

We've learned a lot over the years in terms of IT and IT implementation. I think, as Allan has noted, the approach in terms of the modular approach to our current program is the best approach because it does give you a chance to implement something, assure yourself that it is effective and assure yourself that it can be enlarged or enhanced or linked to others, rather than planning for some very large program and project and not knowing until it's too late that it's successful or not.

I will say to you that I don't think we have any horror shows. Certainly, as always, we have room for improvement, and I think we've taken advantage of that as well. But we are quite watchful within the ministry of both the need for good IT technology and also the responsibility to ensure that we plan for it well, prioritize it well, resource it as well as we can and implement it with appropriate resources and oversight. So in that regard, I think we're up to the challenge. As with anything, we could have more, faster, more robust. But we're trying to manage with the resources that we can apply to this.

Allan, is there anything you want to add to that?

Mr. Gunn: I think perhaps from an anecdotal perspective, I could comment on the turnaround time that you're looking for. In terms of the modular approach and

where it has helped, I could share with you an example where recently there were some changes to the permit to take water program. What we were able to do was track the permits to take water: simply take a module that already existed, do some minor tweaking to it, plug it in and add it on in a fairly short turnaround time. That's the design of it.

The other thing is the structure using the clusters and the availability. One of the challenges—having been around a long time—I used to find in the early days of technology was actually getting the trained skills to be able to do the work. Now, with the cluster structure that's available and the OPS as an organization, there's more swing capacity to be able to take on board the technical experts who are already seasoned and experienced staff to reallocate them to the priorities of the day.

Those would be two examples of things that I think have allowed us, within our cluster and as part of the larger operations, to be able to respond to the technological needs.

Mrs. Liz Sandals (Guelph-Wellington): I'd like to talk about integration, perhaps in another area. There are a number of initiatives, and it seems to me that a lot of these things are interrelated.

First of all, let me congratulate you on the sort of watershed approach that you're taking to planning, because certainly in the area that I come from, in the Grand River watershed, there's a huge number of municipalities that all use that watershed, and to have it piecemealed by municipality makes no sense. The only sensible way of approaching the problem is to deal with it as a watershed. So congratulations on that approach.

It seems to me, however, that we've got the source water protection initiative going on, and looking at how we protect that whole watershed. We've also got the permits to take water; we're looking at that. I'm wondering, first of all, how those two things are going to be integrated, because I'm assuming that if you're going to talk about taking water, that's somehow got to relate back to source water protection, and also, how we relate all of that to looking at cumulative impacts on watersheds, because in the case that I'm dealing with, it's a huge watershed. There are all sorts of people. It's agricultural in some areas. There's a huge gravel extraction component in my riding. There's industrial use. So there's a whole range of uses, and then we, more than virtually any other watershed in the province, I think, rely on groundwater for drinking water.

So you have a huge watershed, a huge geographic area and a whole bunch of things going on within that watershed. How do we pull it all together so that we get sound planning, both surface water and groundwater, and watertaking and integration and cumulative impacts measured for that whole great beast?

Ms. West: Joan, do you want to respond?

Ms. Andrew: When the government issued the white paper on watershed-based source protection last February, the paper also contained discussions about the permit to take water and concepts of charging for water. So we

did integrate them in the white paper. There was a need to move ahead more quickly on the permit to take water because of the one-year moratorium. So the regulation related to permits to take water moved ahead in December so that the new regulations would be available for the lifting of the one-year moratorium.

But the view is very much as we move forward—obviously, watershed-based source protection is, if I can call it that, the larger framework in which things will operate. We do need, over time, to start moving some of the individual programs the ministry has operated as stand-alone programs into that framework.

It's also, a little bit, an issue of capacity-building in communities. So we're asking conservation authorities to take on a fairly significant role in sourc protection planning; we're asking communities to think about water uses they haven't thought of before. It'll be a matter of timing and phasing as to how we put on all the programs that need to go into source protection. Obviously, permit to take water is one that has to be closely linked to source protection from very early days, but there will be other linkages to source protection, like nutrient management. It's a matter of how fast things can roll out, what the community capacity is to absorb those, getting different industry sectors, municipalities, conservation authorities and agriculture all working together at a watershed-based level. I think the Grand River watershed is renowned in Ontario for being a little further ahead in some of its planning than other places. There are places where we could move faster and places where I think the capacity still has to grow a bit.

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Mrs. Sandals: And that may be just the reality of the fact that there are so many different—both upper- and lower-tier—municipalities involved, that the only sensible way to do it is—even historically—from a watershed point of view, just because there are an incredible number of players. We could think of source water protection as the overarching umbrella, and all these other projects as things that interrelate and hang on that overall planning umbrella.

Could we talk a little bit more about how we get at cumulative impact? I know that something that has become somewhat of a topic in my riding is the issue of cumulative impact on aggregate permits. If you look at, for example, a single aggregate operation as an entity in and of itself, it might be acceptable, but then if you have these all lined up beside each other, up and down the concession road, how do we think about cumulative impact? Is it from simply a quantity point of view? How do we go at talking about cumulative impacts?

Ms. Andrew: On permits to take water alone, we do talk about it on a quantity—under the new regulation, we did some mapping with the Ministry of Natural Resources to look at high-demand watersheds and what watersheds are more stressed. Under the new permit to take water regulation, there are actually different rules that can apply, depending on the demand that's already in the watershed and some of the mapping that we've done.

I know people talk a lot about industrial uses of water, but you also have to worry about things like—for municipalities—fire safety. There has to be enough water to keep those kinds of basics, and also irrigation for agriculture. So there are parts of the province where there's higher demand, and we do have to worry about the pure quantitative capacity, especially in the summertime. But there is also qualitative stuff. It's not yet—I'll turn it over to Carl, who is in charge of sciences at the ministry—a perfect science. I don't think we actually do know all the interplays from a scientific point of view; it's not just a government issue.

Mr. Griffith: The comment I'd like to make is that through the provincial groundwater monitoring network, for example, we can begin to better understand the cumulative impact of what is going on in both quality and quantity. I believe that foundation of information can also help us when talking about integration of programs. We can begin, then, to better understand how we should be dealing with the issues that we're seeing through the monitoring network.

Ms. West: With respect to permits to take water specifically, and taking into account the cumulative impacts, perhaps Michael Williams can give you some information on that.

Mr. Williams: What the staff do at the field level is the last event in the chain, from planning, working with conservation authorities and working with municipalities, to getting right down to the issuance of the permit. The new rules require an ecosystem-based approach, so we need to look at water supply, water demand and all of the other environmental factors in the permit. Our surface water specialists and hydrogeologists factor in cumulative impact at that stage before they consider whether the permit will be issued or not, or, if it will be issued, what kinds of restrictive terms and conditions need to be applied to it.

As my colleague Joan said, there is a definition of watersheds—high-use, medium-use and low-use—and the terms and conditions our scientific staff would put on those on the issuance of the permit would vary depending which watershed they're in. That's how we practically, on the ground, build in a consideration of cumulative impact in the permits.

Mrs. Munro: I'd like to talk a bit about the conservation authorities. In the auditor's report there is information given to us about the fact that six of 36 had been able to provide plans and the others were outstanding. I realize there's a rather significant time gap between the time this information would be gathered and today, since we're talking about real-time reporting, so I wonder if we could have a little bit of conversation on that.

Also, from the information you have, how do you project what the information will give you as a planning tool? I think people in all of the watersheds are very concerned about this and often find frustration in the length of time that we understand the science is going to take. So I think it's important to be able to provide insight into how you would use the information you're

getting in terms of projecting, and what kinds of potential initiatives would come from the studies you're doing on that watershed basis. If you could do a little crystal-ball gazing for us as well, I think that would be helpful.

Ms. West: I'll let Joan speak to the studies that have been done and also some of the planning that conservation authorities have done and our thinking in terms of going forward with the framework for source protection planning.

Ms. Andrew: I think when the Auditor General was doing the work in the ministry, we were thinking about an approach where maybe some of the conservation authorities—like the Grand River Conservation Authority, which was further ahead in its planning—might, if I could say this, go out first on source protection. Since then, we've probably changed our mind about the approach we would take. The information we gave the Auditor General at that time was accurate in terms of how we were thinking, but when we released the white paper, we subsequently have been thinking about grouping conservation authorities together to help try and build some capacity so that we could help more conservation authorities move forward faster and look at a broader approach across southern Ontario.

One of the ideas behind the province-wide plan is that instead of having each conservation authority, we'd look at grouping conservation authorities. We'd look at watershed plans—I'll check with staff, but I believe it's using about 17 plans in southern Ontario—and have lead conservation authorities move forward on that. We'd try to look at an approach that might phase in the work over time to, say, municipal wellhead areas to start with and particularly vulnerable recharge areas, and then expand over time so that we're not asking people to take on everything in their watershed at one time, but look at some of the highest-use areas, like municipal wellheads, looking at protection zones for them and starting to protect the biggest part of the population as we move forward on source protection. I think we've somewhat shifted from when the Auditor General was speaking to a kind of broader-based approach, maybe phased within each watershed, so that you're focused on things like municipal wellhead areas first and some of the other high-risk areas in the watershed. That's the approach we're thinking of taking now.

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Mrs. Munro: I appreciate that. That's why I prefaced it by the fact that I understood the difference in timing. I appreciate the fact that this is a work in progress, and it's important for us to appreciate that.

I wanted to ask you, though, when you were looking at establishing those priorities in terms of municipal well-heads, for instance, and recharge areas, do we have data from other jurisdictions with regard to the manner in which others have approached this problem? It would seem to me that obviously other jurisdictions will face similar kinds of situations with regard to groundwater. What have we learned from others and what are we doing about what we've learned?

Ms. Andrew: We have, as best we can, learned from other jurisdictions. New York City actually instituted a fair amount of source protection, but our balance of groundwater and surface water is sometimes a little different, particularly in southern Ontario. An awful lot of us actually get our water from the Great Lakes, and lots of people have jurisdiction over the Great Lakes, so it's not entirely under our control. We have, to the extent possible, been learning from other jurisdictions, but it's not something that's always totally applicable to Ontario. I can turn it over to Ian Smith, who's done more of the technical work on it.

Mr. Smith: We have looked at a number of jurisdictions, including New Zealand, Australia, Ireland and the US, which has actually done a lot of planning work. In most cases, they have focused on what they considered to be their most sensitive water supplies or resource. In some situations it's a surface water source, but in most situations it is groundwater.

In the US, the approach has been fairly similar to the approach we've been discussing with our technical experts, focusing on the municipal wellheads first, which is the larger population centres, followed by those recharge areas, which are the sources of the actual water quantity, making sure those are protected, and following along with that on a broader structure. So the integrated or phased approach is fairly common in other jurisdictions, but as Joan has noted, it tends to start with whichever type of water is important to that particular jurisdiction.

In our development of source protection, we have had a number of committees provide recommendations to the minister. Their recommendation has been that the municipal groundwater supplies, which have received a number of years of science and investigation, should be the priority watershed or water source that we protect with the initial planning phase.

Ms. Churley: Just coming back briefly to aggregates and cautionary source protection, one of the things I refer to frequently is the watershed-based source protection implementation committee report to the Minister of the Environment. One of the things we're talking about—just in terms of the legislation, to back up my point on this, the committee says, "It is important that all provincial and municipal decisions affecting drinking water be consistent with approved source protection plans. In addition, source protection plans must prevail if conflicts with other instruments occur. The primacy clause would help ensure effective implementation of source protection plans by providing the legal basis for decision-making in the event of such conflicts."

My question around that would be coming back to what I asked earlier: Would there be this kind of overriding clause in a source protection act that would take precedence over any other act, as recommended?

Ms. Andrew: Because the act hasn't been tabled, it is hard to say exactly what will be in the act. I could refer you, though, to the growth act that has been tabled, where it actually says that where issues related to human health

and the environment are concerned, the growth act would bow to future source protection legislation, which I think does indicate that—environmental legislation. Sorry. It does indicate that there has been integrated policy work across government in that the intention, as that act has been tabled, is to refer to allow primacy where it's needed in source protection. It's only by inference in the growth act, but it does—

Ms. Churley: Exactly. That's what we need to be looking out for, because in terms of source protection, if it's not in there, then a lot of the really good work you're doing will not happen because of some of the other acts and some of the other pressures on other ministries.

I wanted to just come back to where we are in terms of funding. I know you do your best with the kind of resources you have, and we discussed that in previous committees on other environmental issues. The auditor, as you know, assesses if the government has adequate procedures and policies to ensure that we have a safe drinking water supply. But of course we all know that the effectiveness of anything that appears on paper relies at least in part on the resources available to implement it. The backdrop is that I know that the MOE did receive an injection of money in last year's budget for source water protection, and we've alluded to some of that: money for research and program development, some for capital, and water programs have been the recipients of some restored funding since Walkerton.

We touched on this earlier before you came in, and after with some of the other questions. The auditor just keeps on finding evidence of a lack of enforcement. You could say, with all due respect to the Chair here, that some of it is the legacy of the huge cuts that happened under the previous government, which have not been fully restored; in fact, a very small portion of it. So what we found is that there are examples of insufficient monitoring of water-taking permits, active and expired, and no follow-up with permit holders to submit hydrological reports identifying the potential impact of the proposed water-taking on the groundwater supplies and systems.

Here's more of the backdrop: We're also receiving very strong messages that the MOE will not be a candidate for more funds in upcoming budgets, and I'm sure that's very disappointing to you. Given everything that's on your plate with all these new pieces of legislation, and speaking specifically today about all the work you have to do around protecting our water, I believe that this fiscal backdrop that I'm painting here really does put into serious question the fate of the upcoming source water protection plans.

For instance, for the plans to work, there needs to be funds for all parts, including capital upgrades of municipal waterworks. That's just one other little piece we haven't talked about here today. The municipalities have made it clear that with their downloading and having to pay for a lot more things, they don't have the capital money to do it.

So here's an idea that came forward from the Liberal government—and I put forward a private member's bill,

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and environmentalists have been calling for it—and that was the government said that they would no longer be giving away Ontario's water for free and that they were going to start charging for water-taking. I have a motion on the order paper that calls for this as well, and environmental groups have been calling for it, because they understand and are quite worried that although things look good on paper, if the money is not there, it's not going to happen.

When the amended water-taking regulation was announced this fall, that component was missing after the government announcement. The spokesperson for the ministry, when we asked, said that they were still consulting on the water-taking fees. So my question is actually very simple, after all that: What is the status of the water-taking fees regime at this point?

Ms. West: I would like to just briefly respond to some of the comments, or the context that you have presented.

Ms. Churley: But I have a lot more questions.

Ms. West: OK, I'll be brief. In terms of the funding for the ministry, I think you yourself have acknowledged that there has been a new injection of funding, particularly in the water programs. We do have the information. I know that the last time we were together, we talked a little bit about the budget and the change in the budget for the ministry over the past few years.

Ms. Churley: It was a heroic effort.

Ms. West: We can go back to that if you want, but we don't have to go there right now.

Ms. Churley: Right.

Ms. West: Certainly with respect to the resources and some of the issues that you raised in terms of compliance, we are, as well as making good use of the new resources, taking a risk-based approach to our enforcement and compliance. If you want, we can talk a bit about that in a minute as well, as we get to your specific question.

In terms of the cost of water, I think there has been an acknowledgement from a number of sources that as individuals receive the water municipally, in fact what you're receiving doesn't reflect anywhere close to the real cost of providing that water. That's another consideration in terms of municipal water rates, going forward.

With respect to charging for water, in and of itself, I'm going to ask Joan to speak to that because I think, first of all, we want to understand the context in which that water charging proposal was first brought forward, and she can reference where we are with respect to it.

Ms. Andrew: On charging for water, we have been doing some policy work. The further we got into it, the more complex it became, if I can say it this way. There are NAFTA rules that say, for instance, if you charge someone who is on a stand-alone system, but they're a competitor with someone who is on a municipal system, you have to actually apply the same charges to people on municipal systems—

Ms. Churley: If I can interrupt, I looked into that too when I did my resolution on this. If it's administrative fees, which can be done, then NAFTA—

Ms. Andrew: On administrative fees—

Ms. Churley: So you can do it differently.

Ms. Andrew: We have applied administrative fees to permits to take water. But because of Eurig decisions, we can only charge administrative fees to the level that it costs the ministry to administer. We're limited by what we can charge on administrative fees by a Eurig decision, so the administrative fees reflect the cost it takes the ministry to process the application. If you're talking about the issue of charging for water, then it has to go beyond what it costs the ministry. It goes beyond administrative fees.

Ms. Churley: I've seen real creative ways to up administrative fees in other areas, above and beyond the actual cost.

Ms. Andrew: By the time we got legal advice on constitutional issues, NAFTA issues and international trade issues, we were somewhat constrained in a creative approach.

Ms. Churley: Are you saying then that this concept and the announcement that was made is dead because of NAFTA concerns?

Ms. Andrew: No, I'm not saying that it's dead.

Ms. Churley: So you're still looking at ways—

Ms. Andrew: We're still looking at ways. I'm just saying it became a more complicated issue than we had initially thought. No, it's not dead.

So we are now charging administrative fees for the processing of permits to take water. There are two administrative fees: one for simple permits, as I call them, and one for more complex permits. The watering of livestock is exempt from the need for permits to take water, but all other agricultural uses are exempt from the permit—

Ms. Churley: When did those come into effect?

Ms. Andrew: April 1. Michael can give you the details.

Ms. Churley: Can I get them later?

Ms. Andrew: I just wanted to say one thing.

Ms. Churley: Sure.

Ms. Andrew: We also instituted a new service standard along with the fees so that we now turn around the vast majority of our permit applications in 90 days.

Ms. Churley: OK. I'm sorry. I know I'm trying to rush you, but we have such limited time. Do you want to just very briefly—

Mr. Williams: Sure. There are three categories of fees. A low risk of causing any kind of environmental impact fee is \$750. That's a category 1. Category 2: again, \$750. This is where there is a slightly higher degree of environmental impact or interference. For category 3, the final category, the fee is \$3,000. That's where there's higher risk of causing significant adverse environmental impacts or interference and where we need to do extensively detailed scientific reviews. I have examples of those categories. I can provide them later, if you'd like.

Ms. Churley: If you could provide them, actually; perhaps the entire committee would like to see those.

The Chair: If you could provide those to the committee.

Ms. Churley: Can we get into the planning for groundwater management? Again, this came up earlier, but I had a couple of more questions to put clarification around that. The auditor says, as you know, it's going to take years to implement source water protection plans across the province, largely because they're presently being undertaken on a voluntary basis by municipalities and conservation authorities, with, as we've acknowledged, some funding for early water management studies: \$19.3 million, I think, was provided last fall.

Assuming government introduces and passes the source water protection legislation in the near future, do you have any idea, based on what we know now, how long it'll take to have the outstanding source water protection plans completed under the existing circumstances?

Ms. Andrew: It still will vary across the province, community by community. We have done, if I can say this, quite a lot of the technical—my sense is always telling me we haven't done enough. Doing the groundwater studies and the wellhead protection studies, we've focused a lot on what's under the ground. What we haven't done yet on source protection is some of what I would call the land use planning: What are the surface uses in and around municipal wellheads and vulnerable areas?

So there will have to be some kind of community-based process for communities to come together and to assess their water and the land uses and to make those plans. It will vary, depending on how far along some communities are, but we would guess somewhere between 18 months to three years, I think, in terms of different communities being at different stages.

Ms. Churley: Do you have any idea of how much more money needs to go to the conservation authorities to get all this work done, and what is the estimated cost of development and implementation?

Ms. Andrew: I don't think you can estimate the cost of implementation until the plans are developed, because the plans are all about determining risk, and so the implementation costs will depend on that kind of risk assessment. We are looking at what it would take to do the assessment planning across conservation authorities and having discussions with the Ministry of Natural Resources on that. I think we're confident that between the two ministries' resources over the next couple of years, we can manage the assessment and planning process.

Ms. Churley: I wanted to get into a little bit around nutrient management plans.

The Chair: I'm going to rotate it before you get there, OK?

Ms. Churley: Sure, that's fine. Go ahead. 1130

The Chair: Marilyn said, in deference to the Chairman, with regard to ground source—my recollection of history is a little bit different, in that—

Ms. Churley: We were both there.

The Chair: —when I became the Minister of the Environment in 1996-97, in fact, very little attention had been paid by the previous administrations over the previous 15 years with regard to groundwater and that tremendous resource. It was my recollection of history that we started to deal with well drillers, to collect information that was disparate at that point in time. We also started a lot of groundwater studies. I remember the one in the far east being the first one, Dundas-Glengarry and Prescott-Russell. What I think happened in history was that none of us paid adequate attention to this particular resource, but that it started to progress at that point in time. At any rate, that's my recollection of history, which is somewhat different than—

Ms. Churley: For the record, huh, Norm?

The Chair: That's right.

Mr. Jeff Leal (Peterborough): I want to come back to the increased roles that conservation authorities are going to have with regard to source water protection. My background is in municipal politics, and during the 1990s, of course, there were reduced resources from the Ministry of Natural Resources to fund conservation authorities. Municipalities were asked to increase their levies to support conservation authorities and in many cases there was a philosophical shift in conservation authorities where they abandoned their planning functions and went to functions that would produce revenue, dealing with developers in order to keep conservation authorities going. In my riding of Peterborough, the Otonabee Region Conservation Authority was in reasonable shape, because the city of Peterborough could sustain levies to keep it going. But in the eastern part of Peterborough riding, we have the Crowe Valley Conservation Authority in communities that have low assessment bases. Right now, we've asked the general manager of that authority—he's like a jack of all trades. He fixes dams, he picks up garbage in parks, he does this, he does that, because of the reduced capacity.

My question is, in dealing with this issue—and I think you touched upon eight conservation authorities that may have capacity, within 36 in Ontario—would we have to move, in your discussions with MNR, to having larger conservation authorities in Ontario, to having larger assessment bases to sustain the kind of planning functions that are going to be inherently necessary in order to do this very important work in source water protection? It won't be a cheap thing to do. This will be a pretty expensive task in the province of Ontario, because I know in the city of Peterborough the dollars we've put up to do this kind of activity. I'd like to hear a comment about that and your work with the MNR on this issue.

Ms. West: Let me just make some general comments, and then I'll invite Joan or Catherine Brown to speak further about the conservation authorities. We recognize, as has already been said, there's a variety of capacity in conservation authorities to respond to this or to do other work. Certainly this government, with the Ministry of Natural Resources, has recognized the need for resources

to be provided to conservation authorities to help them build the appropriate capacity to respond—and some of that has already been done—and also looking at a way to consolidate conservation authorities to support better capacity for source water protection planning and implementation. So we recognize they're a very important delivery partner, and we have to make sure that they are enabled to do that delivery.

Ms. Andrew: Maybe I'll start and Catherine can give you the details. We did have very early negotiations with Conservation Ontario, which is the province-wide organization that supports conservation authorities, at the very beginning, to make it clear that capacity-building was something we took very seriously and that we might need to work with organizations bigger than one individual conservation authority. They worked with us jointly to create the watershed-based planning areas and to look at the partnerships, and they worked and negotiated amongst their conservation authority members on the partnerships that would be needed and the agreements on which the conservation authority would take the lead in a given area. That was a very formalized agreement that they undertook amongst the conservation authorities, and it was a requirement of us moving forward. Last December, the two ministries—the Minister of Natural Resources and the Minister of the Environment announced funding for those conservation authorities to begin the capacity-building and technical needs, moving forward on source protection. That is a substantial increase in the provincial funding for conservation authorities, but it is focused on watershed-based source protection. There is a specific memorandum of understanding between the Ministry of Natural Resources and Conservation Ontario to govern the use of that money so that it is focused on a particular need.

If you want more details, Catherine can provide them. **Ms. Catherine Brown:** I'm Catherine Brown, the rector of strategic policy at the Ministry of the Environ-

director of strategic policy at the Ministry of the Environment. Some of the funds that were provided—as you recall, Joan alluded earlier to the white paper. In the white paper that the government issued about this time last year, there was a delineation of where the conservation authorities currently exist; where there are some areas in southern Ontario that require additional coverage; and where there might be a lead conservation authority that had a strong sort of capacity that could assist and help build capacity in those other areas. The example of the Crowe conservation authority—it is being supported by the Lower Trent and so it is a stronger conservation authority. They'll work together across their separate watersheds but collectively in that area to build capacity for that area.

Mr. Leal: Thanks very much.

Ms. Laurel C. Broten (Etobicoke–Lakeshore): I have a couple of questions that I wanted to canvass with you. The first is with respect to whether you could give us a little more detail as to the efforts made to respond to the auditor's concerns about investigation and prosecution. I understand that quite a lot of examination of this

issue was undertaken prior to January of this year. I'm wondering if you can let us know where we got to by January of this year and where we're going to be going in the time to come.

Ms. West: I invite Michael Williams to respond to that.

Mr. Williams: One of the many benefits that we find, when the Auditor General's staff come in to sit with us and take a look at some of the things, is they're very good at pointing out areas where we could perhaps improve. This was no exception with respect to the investigations and enforcement branch. In fact, the recommendations that were made we welcomed, and we've done a number of things to try to address them, because we knew we had some problems. I want to tell you what they are.

There were a number of concerns on the matter of speeding up investigations and making sure that the statute of limitations did not allow our investigations to expire, and therefore we couldn't bring things forward to the courts. We've implemented a new process. We have an advance warning system. There are several triggers in the system several months ahead of approaching that two-year window to make sure that we know where we're at with respect to the investigation. We have a team, actually, of investigators and managers that takes a look at that. If we need to redeploy resources to make sure a significant file, for example, does not run up against the statute of limitations time frame, we do that. We just implemented that earlier this year.

Another concern raised for us was whether it is possible to streamline some of the time that we're taking on those. The director of the investigations and enforcement branch has recently instituted a case management workload system, very similar to what police agencies employ across the province, that starts to assign priority rankings to some of the matters that come in that are referred to them from the field. We do it on a risk basis. We look at the things that are the most significant potential violations, where we really think there'd be a huge benefit to move through that. So it's on a case management system to move forward also.

In terms of the third and, I think, the final area that came forth, there was an expression of interest from the Auditor General's staff that we be careful with the amount and volume of referrals that are coming into the branch. If I were to describe to you the way things work in the field, we have our field environmental officers who encounter a number of violations, and they can be relatively minor to fairly major ones.

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The field staff has an opportunity to do what we call "refer" a matter to the investigations and enforcement branch. What we've done in the last few months is undertake a lot of training for the field staff. We're also working with them on the most important ones that need to go into the branch, so the branch can effectively manage its workload, and at what point in time it is important to send a referral in. Do you do it, for example,

the minute you're out there and discover something? Or do you wait until, if orders have been issued by provincial officers or directors, you check compliance with the orders before you make a referral? It's that sort of three-pronged approach that we've taken. All of them have been implemented to date, and we thank the recommendations because they've been helpful in that regard.

Ms. Broten: Just as a follow-up to that, certainly hand in hand with putting in place rules that people can abide by, enforcing them and ensuring compliance is the issue of making sure that the government and the Ministry of the Environment accomplish the goals that have been set out. I know the auditor also had some concerns with respect to whether the measurement and reporting criteria that had been put in place were effective. As we move forward on a lot of initiatives that are taking place right now, how are we going to benchmark what is happening against where we hoped to be by a certain period of time, and where we're going in the future?

Mr. Williams: As you quite correctly point out, one of the things that we wrestle with as a result of our enforcement and compliance effort is not just to strictly count numbers but to look at changing the world out there and making a difference in the environment.

I can tell you that we have progressed in certain areas with respect to performance measures. One of the areas that we're targeting is our nutrient management program. We're actually designing our inspection effort to be a report card for the farms that we visit. It's a different idea, a different approach that we've taken. It's going to benchmark our findings on a county or a regional basis, and it's also going to have some provincial numbers on it, so that as we move to implement inspections on farms across the province, the farmer himself or herself will be able to take a look and say, "This is where I rate against my commodity producers in the same arena that I operate in, this is how I stand up against a regional or county basis, and this is where we're at provincially." Over time, we hope to keep raising the bar. It's a new way of measurement, and it's tied in with our roles and responsibilities under nutrient management. That's one of the approaches we're taking to try and get better performance measures instead of just counting numbers.

Ms. Broten: Will that give the ministry something to measure the entirety of, for example, the groundwater program and what the success level of that program is going forward?

Ms. West: I think what Michael has described is the particular approach to measuring in terms of dealing with the regulated community on nutrient measurement. We do have, broadly, the ministry's performance measures. In 2003-04 we had 14 measures across the ministry, and four of those measures were associated with water—three for drinking water quality and one for surface water quality—so that we are, going forward in 2005-06, looking at external and internal reporting, but we're looking at five measures specifically targeted to water. We think that this is an important approach to identify, as

you've said, what the results and broad objectives are and to be able to track the effectiveness of our programs and approach against those measures.

The Chair: Our researcher's report pointed to the recommendation of the auditor on page 169: "Ministry should identify desired outcomes for its groundwater program and develop performance measures that would enable it to assess the extent to which program outcomes are being met and be more effective in ensuring the restoration, protection and sustainability of groundwater resources."

As I understood it, the ministry had made a commitment that by March 31 of this year you would have these particular measures in place. Is your previous answer an answer to that or would you like to expand on that?

Ms. West: I was referencing just that, the ministry's performance measures. But I'm wondering, Allan, do you have that specific information?

Mr. Gunn: The work that's been going on in performance measures is also aligned to our budget or results targeting the results of the ministry.

Particularly specific to the groundwater, that work has not been completed yet. There is still interjurisdictional research going on to make sure that we align our practices and measures with issues that are going on in the other jurisdictions. That should be coming forth down the road, but it has not been completed yet, as had been anticipated.

The Chair: How far is "down the road"?

Mr. Gunn: It's linked to the policy development. I don't have a specific date that I could be tied to.

Ms. West: Maybe what we can do is go back and see where that stands and then report back to committee, both with respect to the current status and with respect to when we think that—

The Chair: I think members of the committee recognize that this is not an easy task. But we would like to have some kind of indication of the progress and the time frame that we could look at.

Mr. Gunn: We could do that.

Ms. Churley: I just wanted to continue on nutrient management for a while, but just to the question I asked before—it's more of a political question so I'd rather be asking the minister and, I guess, the parliamentary assistant, and that's not happening in this forum.

I just want to say, following up on Mr. Leal's question about the conservation authorities—they were cut, I think, by about 70% previously; a huge amount—and the questions I asked around the watershed-based source protection implementation committee, it was quite clear that it was the provincial government's responsibility to fund the development and implementation of the source water protection plan.

I simply want to say that all these things look really great on paper, but these are huge, enormous undertakings, which are going to mean resources for them to happen. I understand that you can't answer some of those questions today about the cost of implementation, and then there are the costs of development and all of those

things. I guess I'll take those questions more to the minister at this point. But I just want to put on the record, Auditor, that I have a real concern about your comments on this and a real concern about the resources, or the lack thereof, in making sure that these things get done. I'm not going to ask you any more questions about the resources, but I think you hear what I'm saying.

Nutrient management plans: Chemical pesticides used in agriculture and in commercial and non-commercial enterprises pose a serious threat to water. As you know, they can find their way from the soil into groundwater systems. Pesticide runoff ranks as one of the most prominent threats to the integrity of the Great Lakes. I know you'll say, "We're dealing with groundwater here, not surface water," but, as you know, in the hydrological cycle surface water makes its way back into the groundwater supply, and this illustrates how pesticides are a prevalent risk to water quality on many fronts: water and ground.

We haven't heard anything about a strategy to lessen the use of pesticides via a risk-based approach that gives preference, first, to biopesticides. Are there any plans, in other words, on this issue, the limiting of pesticides?

Ms. Andrew: Part of the risk assessment that would take place for source protection would address pesticide storage and use, so it does that way. But Carl Griffith actually has responsibility for pesticides broadly.

Ms Churley: It's not about the storage so much as—well, you heard my question.

Mr. Griffith: The federal government has certain responsibilities for the classification of pesticides, based on the health and safety criteria that they use. We have certain levels of responsibility for the storage and application of pesticides. There are also municipalities that are looking into what powers and controls they have within their statutory requirements. So I'm not sure that I have an answer for you as to whether there is a wholesale strategy. There are different levels of responsibility and actions being taken at all three levels.

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Ms. Churley: So in terms of the Nutrient Management Act, within the context of that, there is nothing more specifically happening than is already in place on the usage of pesticides?

Ms. Andrew: I don't believe pesticides are covered under the Nutrient Management Act.

Dr. P.K. Misra: My name is P.K. Misra. I'm the director of the waste management policy branch.

In the Nutrient Management Act the focus is on managing the nutrients, so there are no pesticide requirements as such in the plans or the strategies that the farmers are supposed to produce. Some of the farmers do have voluntary environmental management plans and they provide information on the management of pesticides as part of those plans.

Ms. Churley: As I understand it, the plans are to be phased in, starting with the large livestock operators, to have plans in place by July of this year, right? The large ones?

Ms. Andrew: Yes. In fact, the first one was the new and expanding farms, and they were regulated.

Dr. Misra: The new and expanding farms, expanding into the large category, have been regulated since September 30, 2003. Those strategies are expected by July 1, 2005, and the plans are expected by December 31, 2005.

Ms. Churley: Where I'm going with this is, given the auditor's concern about implementation being delayed even further—I just mentioned the slow rate at which plans are being submitted for government review and approval. What I want to ask you—and you may find this too political to answer, but it's an important question. The government, in the meantime, has been trying to overturn municipal bylaws. We got into this a little earlier, before you came in, about municipal roles and bylaws and all of these things. There have been bylaws brought in by some communities to try to protect local water supplies from potential contamination by large livestock operations. This past summer, the government went to the OMB to appeal a bylaw passed by Huron-Kinloss. This bylaw required that livestock operations be kept at a certain distance from the shoreline, but the government, under OMAF, went to the OMB to try to overturn that decision.

You're the Ministry of the Environment, I know, but this comes back to my earlier question about the supremacy of some laws over others. While we're in the process—and it's going to take years for some of this to come together—why would the government, on any level, be trying to overturn local decision-making that's there to protect the drinking water?

Ms. West: It is difficult to respond to that for a couple of reasons, one of which is what you referred to, that it's not the responsibility of this ministry, as you noted, but the Ministry of Agriculture and Food.

Maybe it would be appropriate if I could invite Michael Williams to clarify the difference in responsibility under the Nutrient Management Act between the Ministry of Agriculture and Food and the Ministry of the Environment, and also speak to what we're doing nonetheless in terms of trying to deal with risk, working with the farming community while we're in the evolving stages of the Nutrient Management Act and the requirements and the regulations of that act.

Mr. Williams: There is a difference between the two ministries.

Ms. Churley: Yes, I know.

Mr. Williams: OMAF's responsibilities are to review, receive and approve the plans and the strategies. They are to conduct education and outreach in the agricultural community, which we also partner with them on. We share the policy development roles and responsibilities, but basically our ministry is responsible for compliance with the legislation.

I want to point out that regardless of what particular state a number of applications are—and I can speak to the number of applications, because we do have recent information on that; OMAF has provided that to us. I just

want the members of the committee to know that we have been out on the farms and always will be on the farms. We've been there for incident response. I'm sure you can appreciate that from time to time there are things that happen in the agricultural community, such as a spill, for example, and regardless of the nutrient management legislation, our officers have been there and we've ensured there's corrective action.

Ms. Churley: Thank you for that. This decision by OMAF to appeal this decision, would you be consulted on that, at least? Would they have the authority to just go ahead and do that without consulting?

Ms. Andrew: They have the authority under the act to do that without consulting.

Ms. Churley: So this is something we need to fix, in other words.

Dr. Misra: Also, may I point out that the Nutrient Management Act stipulates that for the same subject matter, the act supersedes other legislative rules, so—

Ms. Churley: You're saying that once we have, and if we have, a strong nutrient management plan in place this will not be able to happen any more.

Dr. Misra: That's right.

Ms. Churley: That would be good to see.

Ms. Andrew: The Nutrient Management Act also regulates the spreading of sewage treatment plant biosolids on farms. The first part for large municipal sewage treatment plants came into effect in January 2005 too. So it's not just about regulating farm products on farms but also sewage treatment plants as well.

Ms. Churley: I recognize that and I thank you. My concern is that this is one of the appeals that was made which goes against the very grain of the direction the government seems to be taking, at least on paper. While we're in the process of introducing and talking about a nutrient management plan and all of that, at the same time, you have a government ministry appealing a local decision that they believe, if it goes ahead, would contaminate their water. It's just a big problem.

Could I just ask you a very quick question, going to the next—

The Chair: There's a vote in the Legislature in four minutes.

Ms. Churley: Is there? OK. We'll have to come back. The Chair: I'll give you one minute. At three minutes, we're going to adjourn and then we'll come back after the vote.

Ms. Churley: This is actually a fairly quick question. When will the three-dimensional maps of the aquifers be complete, and do you know the estimated cost of the exercise for the province? We can take it up after lunch if you don't have that at your fingertips.

Ms. West: We'll have to get that information.

Ms. Churley: OK.

The Chair: Are you finished now, in total?

Ms. Churley: Well, my next question will ask—
The Chair: OK. You have some more questions.

Ms. Churley: I have more questions.

The Chair: We'll recess until after the vote, for those members who want to go and vote. If you want to come back after that, that's fine.

The committee recessed from 1157 to 1208.

The Chair: Mr. Patten, you had a few questions, I understand. Why don't we deal with those, and then when Ms. Churley comes back—

For other members of the committee, there is lunch, which you might want to wander over and bring back, because after the ministry is done, we will be having a short meeting to discuss our report.

Mr. Patten: My questions aren't that lengthy. Frankly, I'm going to ask you a question of conscience. It's a concern of mine; it always has been, regardless of which government or what.

I find that, for example, in this analysis of the contamination of water—I'm going to refer particularly to the nutrient act, and I made this statement at the time—it was limited. It did not look at the other sources of contamination.

It seems to me totally illogical that you would look at the contamination of manure without looking at the contamination potential—and, I believe, actuality—of human waste that is put on farmers' fields. It's contained to look at the impact on groundwater without looking at the impact on the soil, the plant life or the vegetables that are grown, and the pass-through effect, which has been verified through articles in the New England Journal of Medicine.

I put this out. I know it's not specifically environment per se, but what does "environment" mean if it doesn't mean we're looking at what impacts on the health of people?

You belong to an interministerial committee that involves health, which I was glad to hear. Sometimes, I know, you contend, "It's not in our authority. It's not in our jurisdiction." But it seems to me that there have to be some times—and I'm sure there are—when a particular ministry may raise a question and say, "It doesn't fall within our area, but we have a concern that the legislation isn't broad enough or the legislation is too limited when we consider the overall mandate," and that's the impact on good, clean, healthy water and how it affects health in terms of people and animals, whoever's going to be using or drinking the water.

So I want to ask you that element: Do you feel you have the freedom, just as ministry people, to raise those kinds of questions?

Ms. West: As you raise it within the context of human health, absolutely. We do see what we do within the Ministry of the Environment as having very strong linkage and responsibility for human health. Certainly, when we talk about safe drinking water, that's the primary concern: human health. There are other concerns in addition to that, but we do see it within that context and we do work closely with the Ministry of Health on various levels: in the field, obviously, with the public health units; on a policy level, we do as well. We're also trying to strengthen our connections with health and other

ministries and other jurisdictions on a research and science standpoint. Even in our own vision statement for the ministry, we reference human health as an important objective.

As we work across jurisdictions, as we work within government, at a staff level we certainly do see that as a large concern. Certainly, at a staff level, we feel that we have the freedom—if not always the capacity we would want—to carry out those discussions. With respect to the Nutrient Management Act as a specific example, I think we do both work across on an extraordinary interministerial basis that's very strong. But, as you mentioned, human waste, for example—we do have other considerations, other initiatives that are in place and in play to also deal with that.

We can talk a little bit about that if you want to. I think, over the past few years, there's been a growing emphasis on the linkage between environment and health.

Mr. Patten: I'd be interested in that. I just make this as a comment, but even when we talk about our inspection in agriculture for beef or cattle or what have you, the glaring area to me that's left out is, are we confident that these animals have not been overly dosed with hormones and antibiotics and a whole variety of things that we know then get translated into the manure. then get translated into the soil, then get translated into plant life, and then get translated into the groundwater? Yet that's left out. If I were someone who was totally cynical or paranoid, I might suggest that people don't want to get into that because the implications are astronomical; they are dramatic. Yet my assumption is that the unspoken area—the unexamined and unresearched area-at least in terms of government, is having a negative impact on health, and we need to find ways to flush that out without perhaps the kind of subliminal fear that operates.

Ms. West: Again, I think we've noted on a number of occasions where we do work across and try to make sure we have a sensitivity to what's being addressed in other ministries but also understand the broader objective. Some of that we accomplish by interministerial committees, by encouraging professional relationships across ministries, by looking at some of the work that we're doing on standards, whether it's standards for air, water or otherwise. It's done across Canada in conjunction with other jurisdictions and other ministries.

Joan, did you want to just quickly respond to the issues around septage?

Ms. Andrew: We did ban the land application of portable toilet waste in the summer of 2003, and we're working on new approaches to the land application of septage. In particular, the recent PPS, the planning policy statement, no longer allows municipalities to approve development of septage tanks unless their sewage treatment plants have the capacity to accept septage within that context, so that we can start to manage septage more effectively.

Our director of standards isn't here right now, but we are doing a variety of pieces of work on standards around nutrients in soil that look at lifetime and travel of microbial standards and a variety of things that could be applied to both animal and human waste. We are looking at those issues.

Mr. Patten: Maybe I have to ask the auditor on this. I don't know if we can make a request that at least that be considered. All I'm saying is that we certainly shouldn't be limiting our best minds in government to not be able to comment on other areas that have an impact. In other words, if you think of a circle, the legislation only allows you officially to look at half the circle. Yet it seems to me that what we need, as legislators and as a government, is the best thinking. We need to fill out the circle a little more, in terms of what's being examined, if we're really saying that the overall objective—where I think we all agree—is the protection of threats to health.

The Chair: Mr. Mauro, you had a few questions?

Mr. Bill Mauro (Thunder Bay-Atikokan): Just very briefly: First, can I go back to something you said a second ago? I just need to be clear on this about the provincial policy statement and septic tanks. Can you repeat what you said the prohibition is now under the PPS?

Ms. Andrew: I believe the PPS says that for municipalities to approve developments that are serviced by septic tanks, the municipality has to have the capacity to accept septage in their sewage treatment plant.

Mr. Mauro: So it's within the boundaries of the municipality, not rural municipalities that would not have a sewage treatment system. They wouldn't have the requirement to bring that septage into the municipality's sewage treatment plant. I'm sure that's what it must be.

Dr. Misra: There is a clause in the provincial policy statement that any new development that happens at the municipality's level will have to ensure that there's adequate treatment of the septage that is produced within the municipality's boundary. It may include taking it into the sewage treatment plant or an alternate way of treating it.

Mr. Mauro: What about small rural municipalities that do not have treatment systems that are all on septic systems? Does that requirement apply to them if they wanted to approve a subdivision? Is that what you're suggesting? They don't have a plant, but they'd have to find a municipality that would take it or they wouldn't be able to approve a subdivision. Is that what you're—

Ms. Andrew: Yes, that is my understanding.

Dr. Misra: That is our understanding.

Mr. Mauro: When did this come into being?

Ms. Andrew: The Ministry of Municipal Affairs and Housing brought in the new planning policy statement in, I believe, January of this year, but I could be wrong. It's very recent.

Mr. Mauro: Thank you. I can follow up on that.

The Chair: Can I just have a supplementary on that? Are you doing anything or is the ministry doing anything to assist rural municipalities that have sewage systems to expand their capacity in order to deal with this problem?

Ms. Andrew: Yes, we're working on a number of projects. There is one pilot project in particular going on

in Grey county, trying to look at regional capacity as opposed to each municipality acting on their own. We've been working with municipal affairs and housing to administer the COMRIF program, the Canada-Ontario municipal rural infrastructure I believe it is, and looking at those kinds of things to assist rural municipalities with necessary upgrades to their sewage treatment plants.

The Chair: This has a huge impact. I don't know how much notice people have had about this. I don't know about the area you represent, Bill, but in my area it hasn't hit yet. In other words, the rural municipalities don't understand that you can't—can they give building permits?

Ms. Andrew: I'm sorry, I don't have the details of the Ministry of Municipal Affairs and Housing. We can go and get the exact details and provide them to the committee later.

Mr. Mauro: I don't mind just following up on it on my own. I'm not sure that your representation is accurate; in fact, I'm hoping it's not, but it sounds incredibly—well, we'll find out about that one on our own.

The other question I have is a bit of a tough one. I'm not even really sure how to frame it. Where I come from—northwestern Ontario; Thunder Bay, specifically—almost everything is an aquifer, almost everything is a river or a stream or a lake. When we begin to implement these policies, which I think we all agree are necessary to some degree, is there any thought or consideration given to the restrictions and how restrictive it can be for economic development in northern Ontario or any area besides northern Ontario that has sort of missed the economic boom that has occurred in most of the province over the last 10 or 15 years?

I have personal experiences now about economic development opportunities that can't move forward under processes we have already. These, while necessary, may make that even more difficult. I'm wondering if we're attempting to somehow factor in—as I say, when almost 100% of your geography is an aquifer—a river, a stream or a significant wetland or endangered species habitat or something—do we factor that in and just at some point say, "That's going to be a provincial park, 100% of it," or are we somehow going to try to realize that there is a bit of a balance that has to try to be achieved?

Ms. Andrew: Maybe I could answer that at two levels. One is that we are, as I think I said earlier, trying to focus on a phased approach, so we'd start with municipal wellhead areas. We are going to try to focus in on municipal wellhead areas and looking at a 100-metre radius around them—that's a football field around a wellhead area, which is significantly smaller—but we're also looking at a particular approach in northern Ontario, partly because there are fewer conservation authorities,

but partly to look at a more municipally focused approach to focus very specifically on the needs around municipal wellheads and municipal intakes.

Some of the interjurisdictional research and also the research of Ontario communities that have already undertaken source protection planning has actually had a very limited impact on economic development in those communities.

I just wanted to answer in both ways, which is, we are looking at a special approach for northern Ontario, but also the land use restrictions are much less significant than most people anticipate.

The Chair: I think it would be helpful for all members of the committee—Mr. Mauro's question with regard to building permits and subdivisions—if you could check that out and respond to us within a week, please.

Ms. Andrew: Within a week?

The Chair: Yes. I think it's important to know whether that information was accurate.

Mr. Mauro: Are you clear on what the question is? Can I ask you that? Within the municipal boundaries I can understand the policy to some degree if a municipality—in my particular example, Thunder Bay—has lots of rural land that would not be on the sewage system where they would have to get that approval, so they're basically approving it for their own system. But I'm talking about neighbouring municipalities that are small, rural, which do not have sewage treatment facilities, which are entirely on septic systems—they do not have treatment plants. Are you suggesting to me that the PPS is saying that in those types of municipalities they would have to have approval from neighbouring municipalities that do have sewage treatment plants to accept the septage from those approved subdivisions before they could approve them? That's my question.

Ms. Andrew: I understand your question. I do not know the answer.

Mr. Mauro: I just wanted to make sure that you're not back next week again with—

The Chair: I guess my question was further in terms of a severed lot or a subdivision lot: Can they issue a building permit?

OK. Thank you very much for your help. I believe that you're going to be responding to us with regard to a couple of matters.

Ms. West: We will, and we have information for Ms. Churley that she asked for before your break.

The Chair: Thank you very much. Committee members, we will be meeting in about five minutes in closed session.

The committee continued in closed session at 1222.

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