

Assessment Reports

The South Georgian Bay Lake Simcoe Source Protection Region Consultations



ALLISTON
OCTOBER 5, 2010

FACILITATOR'S SUMMARY

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Presentation on Assessment Reports

Robb Ogilvie: Good evening. My name is Robb Ogilvie and I am the Independent Public Facilitator for these Open Houses. My role as the Independent Public Facilitator is to organize these events and facilitate the discussions. You would have met two of my associates when you registered: Melissa Hirst and Bev Warner. Holly Huehn is a planner with me, who will do the live time keyboarding of the sessions. It provides you an indication of how we will prepare the summary. The person with the camera is our project photographer, Peter Courchesne. We use his photographs and we put them in the summary, to spice it up, so it reminds you of who was there and what was happening. If any of you do not want Peter to use your photograph, just tell him and he will not; it is not a problem for us at all.

The South Georgian Bay Lake Simcoe Source Protection Region Consultations

You are Invited

5 Open Houses on the Assessment Report will be held on the following dates and locations:

- 1. Midland**
 - Saturday September 25, 2010 1 - 5 PM
 - North Simcoe Sport and Recreation Centre
 - 527 Len Siff Blvd, Midland, Ontario
- 2. Newmarket**
 - Tuesday, September 28, 2010 4 - 8 PM
 - Gateway Golf & Country Club
 - 470 Casswell Gate, Newmarket, Ontario
- 3. Orillia**
 - Thursday, September 30, 2010 4 - 8 PM
 - CGMD Park
 - 4600 Farringtons Pk, Orillia, Ontario
- 4. Alliston**
 - Tuesday October 5, 2010 4 - 8 PM
 - The Netherlands Inn
 - 6015 Highway 80, Alliston, Ontario
- 5. Barrie**
 - Wednesday, October 6, 2010 4 - 8 PM
 - Lions Gate Banquet Centre
 - 385 Blake St, Barrie, Ontario

Please RSVP by September 15, 2010 so we know who and how many will be attending.

Agenda for Midland

1:00pm Open House Begins
Personal Advisers will also be available for personal consultations with individuals or businesses who have questions or comments about the letter they received regarding possible threats to drinking water on their property.

2:30PM Presentation on Assessment Reports and Facilitated Discussion
4:00PM Repeat of the 2:30 Presentation and Facilitated Discussion
5:00PM Adjourn

Agenda for Newmarket, Orillia, Alliston and Barrie

4:00pm Open House Begins
Personal Advisers will also be available for personal consultations with individuals or businesses who have questions or comments about the letter they received regarding possible threats to drinking water on their property.

5:30PM Presentation on Assessment Reports and Facilitated Discussion
7:00PM Repeat of the 5:30 Presentation and Facilitated Discussion
8:00PM Adjourn

Independent Public Facilitator

My role is to make sure the discussions are fair, transparent, balanced and informed. Fair means everyone will be treated with respect and their opinions given a fair hearing. After we have Don Goodyear's presentation, I will open up the two microphones for any comments, questions, observation, suggestions, recommendations, the full range. Transparent means summaries of these sessions will be published. Everyone who registered will get a copy of the summary of the session. Balanced

means no one will be allowed to dominate or hog the discussions. Informed means the process will be based on the facts.

The Independent Public Facilitator

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- ▶ Informed means the process will be based on "facts".

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We are doing two presentations tonight, one at 5:30 and then one at 7:00. They are both the same presentation; it is just to give more people an opportunity, in case they came later, to also hear the presentation, so do not worry that we are going to sneak something over you, we are not, it is the same presentation.

I would also like to get your permission to use a couple discussion ground rules. The first one is, you have the right to ask any question and you deserve a straightforward answer. My role is to make sure you get

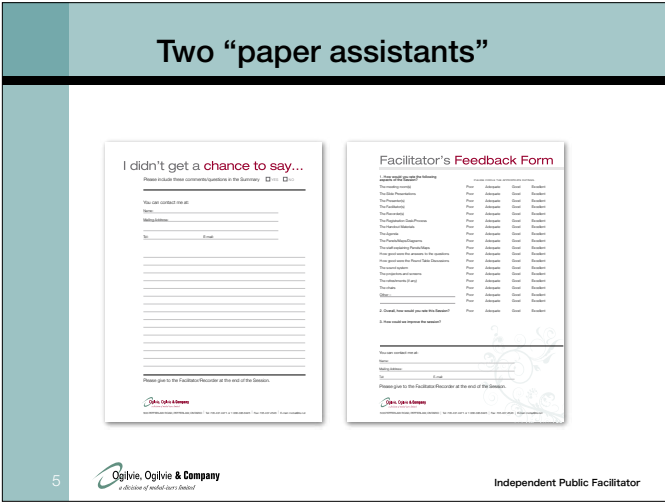
Permission to use these Discussion Ground Rules

- ▶ You have the right to ask any question and you deserve a straight forward answer... doesn't mean you will like the answer, but you deserve an answer...
- ▶ When enough is enough - I would like your permission to allow question-answer-follow-up-answer and then I will move on
- ▶ When a question is asked, give the other person time to answer the question... please don't interrupt, wait until they are finished
- ▶ To make sure we have time for all speakers, if I have to, can I use a 3-4 minute maximum per speaker?

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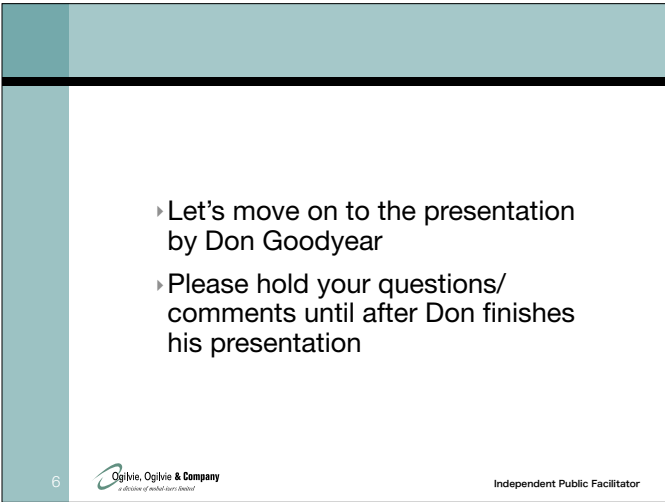
an answer from the staff here. I cannot guarantee that you will like the answer, but I can guarantee you will get an answer. If it is that rare situation where no one knows in the room, we will go back and get the answer, and we will include it in the summary. Second is, when enough is enough. You know how some people like to rag the puck and they get on one issue and they raise it once and then they raise it twice and then they raise it a third time. I will let them do it twice, when they go for the third time, I will indicate that we have heard it and there is no need to raise it a third time. When a question is asked, please give the other person time to answer the question. In this case, it will be Don Goodyear. Don is the director of the staff that have done all the work. The idea is, give him time to answer, do not interrupt, just ask the questions one at a time, we have time to get through them all. If we have many people who want to talk, I may ask people to use a 3- to 4-minute time limit, so I can make sure everyone gets a chance to speak. When that occurs, what I say to people is, go to the back of the line, come through again for what else you wanted to say. It is not meant to short-circuit anyone.

When you registered, you would have received two additional pieces of paper. One is, it says right at the top, "I didn't get a chance to say..." Sometimes people do not want to go to a microphone and speak up if they have a comment they want to make. Anything you write on that sheet and give to Holly or myself gets included in the



summary. It is an additional way of getting your ideas and input. The other one is a facilitator's feedback form, which helps us look at how do we improve things.

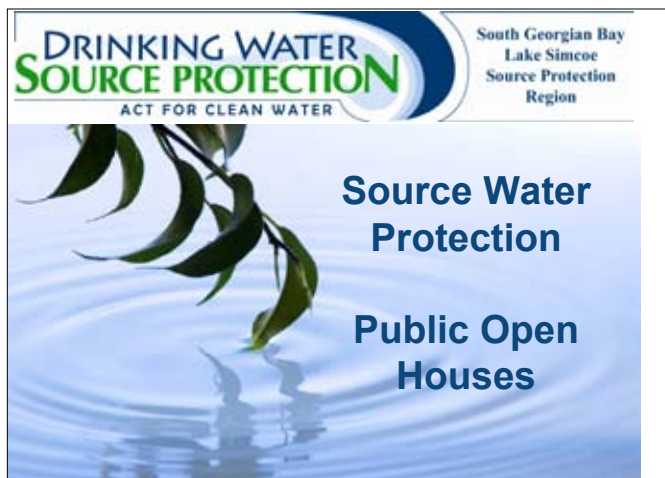
Let us move on to the prime presentation by Don Goodyear. What I would ask you to do is hold your questions or comments until Don is finished and then we will open the floor for any of the questions that you have.



Don Goodyear's Presentation

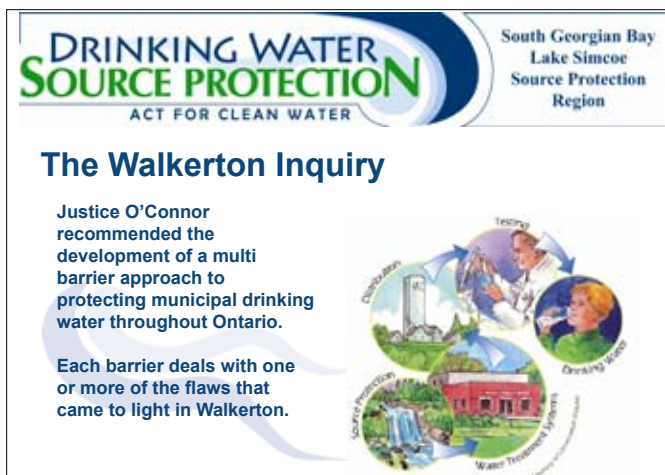
Don Goodyear: Good evening everyone; thanks for coming. I am going to try to accomplish a few things with this brief presentation this evening. I am going to give you a little bit of history of the program, describe how we got to where we are tonight, spend a little bit of time describing what exactly an assessment report is and what it is supposed to characterize. Then I am going to try to give you a sense of what is to come in both the short- and the long-term. As Robb pointed out, I would be happy to take any questions at the end.

with treatment, testing, operator training and as well as, land use planning. The Province initiated the Walkerton Inquiry and Justice O'Connor recommended a multi-barrier approach to drinking water protection. Early on, after those inquiries were completed, the Safe Drinking Water Act came out, which addressed the treatment, testing and operator requirements. A little bit later, 2006, the Clean Water Act was passed, which is the first barrier in that multi-barrier approach, trying to keep water safe and clean in the first place.



Source water is any untreated reservoir of water. It can be a lake, a river, an underground aquifer, all of which are used for drinking water supplies across Ontario in this region. Source protection then, is any activity that you undertake to prevent the overuse and contamination of drinking water. It is a not new thing. Landowners, agencies, business owners have been managing what they do on their property for an awfully long time in an effort to minimize impacts to the environment, specifically water resources. The Clean Water Act just formalizes it in Ontario.

The Clean Water Act really was started out of the Walkerton tragedy, back in 2000, where as I am sure we all recall, a whole bunch of things went wrong, associated



One of the major recommendations out of the Walkerton Inquiry was to undertake the program on a watershed basis. Water does not obey municipal boundaries, so these 19 Source Protection Regions were created and the local region, South Georgian Bay Lake Simcoe is the one, the dashed line there, in the centre of southern Ontario.




It is a pretty interesting and complex place to work, a little better than 10,000 km² in size. We have the, I guess it is the honour of having the greatest number of water systems of any of those 19 regions, which is about 16 surface water intakes, and we are close to 300 municipal wells in our region. 52 municipalities across the region

and we have a blend. In Simcoe County, of course, it is the lower tier municipality responsible for water. In other parts of the region, the upper tier municipality looks after the water supply. A few separated cities. Three First Nations communities in the region, all of them rely on surface water supplies, lake-based drinking water supplies.

The Clean Water Act is a little bit unique, in my opinion, in terms of legislation in Ontario, in that it kind of divests a lot of the authority from Queen's Park down to local groups of stakeholders in each of these 19 regions. The Source Protection Committee is really responsible for this program and it is comprised of, in our region, 22 members. It is chaired by Lynn Dollin, a councillor from the Town of Innisfil, and then we have the 22 members that I mentioned. 7 members represent the economic interests from across the region. Those 7 are made up of 2 industrial/commercial representatives, 3 farmers, 1 golf course representative and 1 aggregate producer. We have 7 municipal members and those 7 people are a combination of elected officials and staff from around the region. Then we have 7 members that represent the public at large, and we are fortunate to have 2 of those that happened to be retired public health officials. We are one of the few committees in Ontario that actually has a First Nations committee member and he is from Rama First Nation.

Our Region

- Four watersheds**
 - Black-Severn
 - Lake Simcoe
 - Nottawasaga
 - Severn Sound
- > 10,000 km²**
- 52 municipalities**
 - 41 lower tier
 - 8 upper tier
 - 3 separated cities
- 3 First Nations communities**





South Georgian Bay
Lake Simcoe
Source Protection
Region

Source Protection Committee




Comprised of the Chair plus 22 members:

- 7 Economic
- 7 Municipal
- 7 Public Sector
- One First Nations Community Member

DRINKING WATER SOURCE PROTECTION
ACT FOR CLEAN WATER

South Georgian Bay
Lake Simcoe
Source Protection
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Deliverables

1. Terms of Reference 
- 2. Assessment Report** 
3. Source Protection Plan 

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Vulnerable Areas



- Significant Recharge areas
- Intake Protection Zones
- Highly Vulnerable Aquifers
- Wellhead Protection Areas


That Source Protection Committee is responsible for three things. The first thing they did a couple of years ago is to produce a Terms of Reference; that is really just a work plan. It described what we were going to do and when, and for how much. We are right now, onto a pretty significant milestone, which is just wrapping up, the technical assessment in our region. That assessment report describes vulnerable areas, relative to municipal drinking water and potential threats to drinking water; I will get to some of the specifics in just a moment. That technical assessment report will be the foundation for the forthcoming Source Protection Plan. Chair Dollin and her colleagues on the Source Protection Committee will have the challenging task, once we have figured out where all these vulnerable areas are and where the threats to drinking water are, what do we do about it. There are two simple objectives behind that Source Protection Plan: let us manage the risks that are on the landscape today and let us prevent new ones from showing up on the landscape if we can help it.

With respect to municipal drinking water supplies, the Clean Water Act really seeks to manage and protect four vulnerable areas. From left to right on the screen, the first two I refer to as our landscape vulnerable areas. Significant recharge areas are those chunks of the landscape where you have sand and gravel; water gets into the ground, as opposed to running off into streams. Those are the parts of the landscape that serve

to replenish municipal aquifers and domestic aquifers, so this is actually relevant to more than just municipal water supplies. It is also, if properly managed, helpful for maintaining domestic wells as well. Similarly, highly vulnerable aquifer areas represent those parts of the landscape where you, again, have a shallow aquifer unit and over top of it, you have other materials, sand and gravel. If you can imagine, if you get a spill at surface, very quickly a shallow aquifer could be impacted. On the other hand, most of our municipal aquifers are really deep and they are protected by layers of clay or till, so a spill at surface could take hundreds of years to get down there. We have mapped that relative vulnerability of the aquifers across the Region, across Ontario, in fact. The next two vulnerable areas on the right hand side of the screen are really zooming right in to those municipal water supplies and assessing the capture area of each of those water supplies. The grey shaded area, the intake protection zone, represents the time of travel in a lake to that green dot, which happens to be the surface water intake for a municipality. Surface water moves very quickly, so what we have estimated in these settings is a 2-hour time of travel under different wind and storm conditions. If you are the people responsible for land use planning and/or the water manager for that municipality, you are obviously very interested in the land uses and the transportation corridors that intersect that 2-hour time of travel. Similarly, but in a groundwater setting, the last image over to the right, wellhead protection areas describe the capture

areas for the municipal well. The well is in the centre of those different coloured polygons and the rings represent years time of travel. Groundwater moves very slowly relative to surface water. We have 2-, 5-, 25-year time of travel in the aquifer for water to get to that well. Again, if you are the land use planner or the water manager responsible for giving residents safe, clean drinking water, you would be very interested in the land uses and the transportation corridors through that vulnerable area.

The Clean Water Act and the Ministry of the Environment (MOE) has adopted a simplified risk assessment approach to try to prioritize our efforts here. There are two components to that simplified risk assessment. The first component is the vulnerability, the vulnerable areas that I just described, how vulnerable is the part of the landscape that we are talking about. The second variable in that simplified risk assessment equation is associated with land use activities. There are 21 drinking water threats that the MOE has assessed in terms of potential impacts to water quality and quantity. The nature of the program then, is really, just to assess the relative risk of those across the landscape.



South Georgian Bay
Lake Simcoe
Source Protection
Region

Drinking Water Threats

- Waste Disposal Site
- Sewage Storage and Disposal
- Application of Agricultural Source Material (ASM)
- Storage of ASM
- Management of ASM
- Application of Non-ASM
- Storage of Non-ASM
- Application of Fertilizer
- Storage of Fertilizer
- Application of Pesticide
- Storage of Pesticide
- Application of Road Salt
- Storage of Road Salt
- Storage of Snow
- Storage of Fuel
- Storage of dense non-aqueous phase liquid (DNAPL)
- Storage of organic solvent
- Management of de-icing runoff

Just to simplify things a little bit, a particular land use in a vulnerable area represents a relative high level of risk, compared to the same land use, a greater distance from the municipal water supply or in a low vulnerable area. It



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Water Quality Risk Assessment



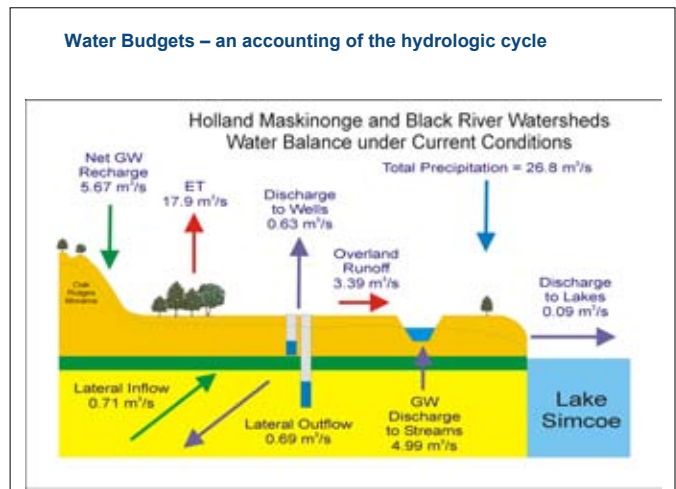
Significant threat
In a vulnerable area
= **High level of risk**



Significant threat
In an area of low vulnerability
= **Low level of risk**

is a combination of those two factors: vulnerability and the hazard score associated with a land use activity that combine to give you the risk.

Often times we focus on the water quality side of things, but the Clean Water Act also seeks to manage water quantity and makes sure that we have enough safe, clean drinking water to meet current and future demands. The way we have been asked to do this by the MOE is to complete water budget estimates. Basically, it is an accounting of the reservoirs in a hydrologic cycle. At the end of the day, what we are doing is comparing demand to available supply. Wherever water demand or consumption exceeds a threshold of available water supply, a flag goes up, we might have a problem here in meeting future water demand in a municipality, so



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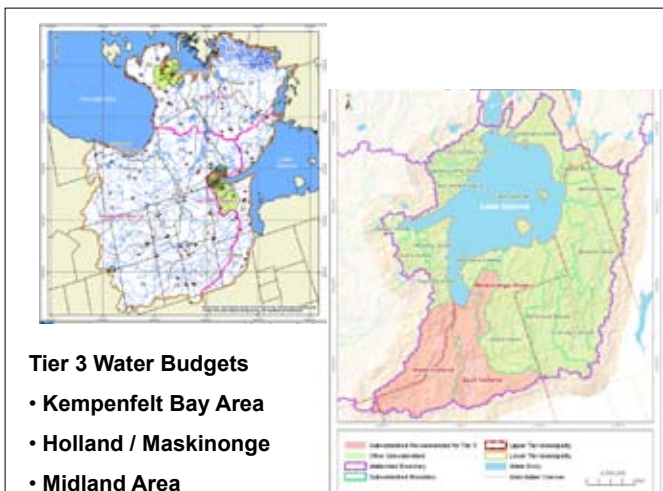
Stress Levels

$$\% \text{ Water Demand} = \frac{Q_{\text{DEMAND}}}{Q_{\text{SUPPLY}} - Q_{\text{RESERVE}}} \times 100$$

Quantity Stress Assignment	Surface Water	Groundwater	
	Maximum Monthly % Water Demand	Average Annual % Water Demand	Maximum Monthly % Water Demand
Significant	>50%	>25%	>50%
Moderate	20 -50%	>10%	>25%
Low	<20%	0-10%	0-25%

we better make sure we are doing a good job here of estimating supply and demand. You go through an iterative cycle where you continually refine your estimate of supply and demand, increase your confidence in those numbers, and at the end of the day, assess risks to water quantity. Water quantity risks come in two forms: competing water use and paving over recharge areas. All of the potential water quantity risks that we have in our region are groundwater related and we are at the stage now where we are starting to assess those.

The shaded areas in these two maps identify the parts of our region where we might have some water quantity risks. They are down in York Region and Bradford, East Holland and West Holland/Maskinonge watersheds. It is the Barrie area, and up in the Midland/Penetanguishene



area. That is where our potential water quantity risks are limited to; those are the only places we are assessing those risks.


In terms of what to expect, both in the short-term and the long-term, what we are doing here tonight, this is one of five Open Houses and we are in the process of trying to solicit some feedback on the Assessment Report that has been published. We are going to be taking into consideration all of your comments and municipal comments, and comments from the Province. Then the Source Protection Committee will give us some direction to revise the Assessment Report, to reflect those comments, and then we will go through the process one more time. We will repost it, we will accept comments again, and then submit it to the MOE for their review and approval.

DRINKING WATER SOURCE PROTECTION
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What to Expect


Once that happens, once the MOE has received, reviewed and approved the Assessment Report, the Committee will turn their attention more fully to the development of policies in the Source Protection Plan. As I mentioned, there are two overarching objectives: manage the existing risks that we have today, and prevent new risks from showing up on the landscape. You are going to see risk mitigation strategies in that plan, you are going to see land use planning recommendations that prevent new risks from showing up; there might be some land use planning recommendations in vulnerable



Source Protection Plan

Includes policies, risk reduction strategies, monitoring requirements, education and outreach recommendations etc.

- Risk reduction strategies to address existing significant threats
- Land use planning recommendations to prevent new significant threats from being created
- Education, outreach, stewardship recommendations to address low and moderate threats
- Monitoring and updating requirements to ensure the plan is working and stays current



Source Protection Plan

Locally developed:

- Provincial regulation provides framework and context
- Local Planning Working Group established
- Group comprised of municipal planners, Source Protection Committee members, and Source Protection Authority staff
- Evaluating policy and risk reduction options, collaborating with neighboring regions to promote consistency, and making recommendations to SPC

areas. There are going to be some softer policies, I expect, related to education, awareness, and outreach. There is a stewardship program, so there may be some recommendations with respect to that stewardship program. The MOE, certainly, understands the fact that the Province is changing. We are in one of the fastest growing regions of the 19, and there is still a lot of development pressure. New water supplies are coming online, land uses are changing, we are going to need to update this stuff periodically to make sure it is current and reflects reality. In the Plan, you will see an updating requirement and frequency.

Those source protection plans are being locally developed, so the Source Protection Committee, the 22 members, plus Chair Dollin, is responsible for establishing the policies that end up in our plan. Some of you that are here from stakeholder groups that extend across the Province are understandably concerned about consistency from one part of Ontario to the next. We are trying to walk that line between provincial consistency and local flexibility. The way in which we are doing that is the source protection planning regulation, the Clean Water Act and MOE guidance material. Basically, it is establishing a base line of consistency; we are required to follow all those rules the Province lays out. That said, there is a reasonable amount of flexibility for the Source Protection Committee to reflect local circumstances. An example might be, what a reasonable policy is to protect

a wellhead protection area up in the northern part of our region might be very different from what we want to do on the Oak Ridges Moraine. The Committee has the flexibility to alter their policies for local circumstances.

Looking way down the road, in terms of implementing that Source Protection Plan, the policies, the plans themselves, have to be submitted to the MOE in the summer of 2012, which means that starting early that year, 2012, we will be initiating a consultation exercise, similar to what we are doing tonight, for the Plan. Instead of talking about lines on a map and potential threats to drinking water, we will be talking about what to do about them, how do we prevent new risks from showing up and how do we address the ones we have today. That will be followed by a provincial review and approval exercise, and then, some conformity period. We are anticipating it will take a couple years after the Plan is approved for municipalities and the Province to come into conformity with that Source Protection Plan. There are two legal effects for the policies that are developed in a source protection plan, the one that is going ahead. Policies that are wrapped around significant threats; municipalities and the Province have to conform to those. Official Plans will have to be amended to reflect those significant threat policies and provincial instruments will have to be amended to reflect them. What I mean by that is, Certificates of Approval for wastewater discharges, Permits to Take Water (PTTW), those kinds of things.



Source Protection Plan

Implementation:

- Plans are due to the Province by August 2012 – Public consultation on the draft plans will commence in early 2012
- Followed by provincial review / approval and conformity exercise
- Municipal official plans and provincial instruments (C of As, PTTW etc.) will have to conform to Significant threat policies
- Must have regard for moderate and low threat policies
- Monitoring and reporting on plan implementation required
- Updates will be required to reflect new information, additional waters systems etc. Frequency To Be Determined

If there is a significant threat policy development, they will have to be amended. If it is related to a moderate or low threat, and the differences between those are all explained on the boards, so we can get into that later, but the policies wrapped around moderate and low threats, municipalities in the Province have to have regard for those policies, so it is much softer in terms of legal effect. Again, updates will be required every few years to reflect new information and that will be included in the Source Protection Plan.

The last slide here, before we get into any questions, is with respect to the stewardship program. The MOE has been asked to come to the table to fund the implementation of this program. Their response to that to date has been to establish the Ontario Drinking Water Stewardship Program, which up until recently, funded a series of pre-approved projects, decommissioning of old wells, addressing septic, pollution prevention reviews for small business, those kinds of things. That program is coming to an end because now that we have these significant threats identified across the landscape, it makes sense to devote the resources to addressing significant threats as opposed to categories of projects. Early next year, we anticipate receiving some funding from the MOE to mitigate significant threats across our region.

There are some people at the back of the room that have some information about that stewardship program. Any project that addresses a significant threat is eligible for some grant. Typically, the grants are up to 80% of project costs. There are some caps by project type, but if you have a significant threat on your property that is identified, please talk to the stewardship people who are compiling a bit of a list of potential projects and we would love to increase the size of that list, so that when we get our cheque, we can contact you.



Stewardship Program:

Early Response

- Addresses significant drinking water threats or pathways that increase vulnerability scores
- Voluntary participation
- Local application process, underway - due to MOE by September 30th, 2010
- The program is expected to roll out March of 2011
- Grant rates up to 80% of the project cost (with some caps by project type)



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1 800 465 0437

Facilitated Discussion

Comment: With irrigation in our farmlands, how is that being influenced by this legislation and source protection?

D. Goodyear: Potential water quantity threats, what we have done is, we have assessed how much water is being consumed relative to what is available across the Region. When we do that, we have determined that in these areas that are shaded areas, greater than 10% of available supply is being consumed. What that triggers, is zoomed right into the municipal water supply, and looking at the long-term viability of that municipal well. If you are within one of these areas, then there is the potential for a water quantity threat to be assessed. At the moment, we have not assessed any water quantity threats; we are just working towards it. It is not in the Assessment Report, we have only gone as far as identifying where we have these potential problems; it is not going to be in this plan, so we are several years away from any impacts, formally, whatsoever. But what we are doing is trying to assess, again, the potential risks to the long-term viability of those wells. There could be, at the end of the day, a PTTW condition that is added in some of those areas that may speak to conservation, it may speak to certain times of the year, I do not know. I do not want to put words in the mouths of the committee or the MOE, but there is the possibility that competing water use could be flagged as a threat and the PTTW associated with it, could be impacted.



Comment: In that map you are showing the Lake Simcoe watershed. Is that the one and only area that you are concerned about at this time? Here, we are in more of the Nottawasaga Valley watershed. Are there other areas of concern here?

D. Goodyear: In the Nottawasaga area, there is a small portion outside the Barrie area that we have flagged as potentially under stress and we are going to be examining that. That is the only portion of the Nottawasaga Basin.

Comment: My question probably falls into your first category here. Just a quick question, you showed on one of your original slides about three different levels of water. You had the surface water, and then you had one other layer and then you get down to the aquifer. I have a well that is 100-foot deep, can you just explain for me, how when diesel fuel and gasoline and oil float on water, how can that get down 100 feet below ground through two other water levels?

D. Goodyear: You are right in that many of those fuels are lighter than water, but they do also dissolve to a certain extent and they can get down and have impacted some of the deeper aquifers. It is not exclusively a shallow problem.

Comment: I would like to make a few comments. I should explain, I am chairing the Innisfil Creek Water Users Association, which is both east and south of the Nottawasaga Valley Watershed. Our group was formed a few years ago for fear of losing our ability to have PTTWs. It is a very large group; it covers a very large area. It is not in a position to be recognized as you have been here. A couple of things have happened over the last, say, 10 or 20 years that I am not so sure even your sector of government has realized we have been doing. Most farmers are very good at due diligence. We are almost at a point, whether the Province likes it or not, where farmers are going to be actually certified. In my own case, I shipped a lot of product to the US border. I am presently shipping to both China and Japan. We are not being tested on parts per million, we are being tested on parts per billion. They are way ahead on their food safety categories. In our own area, to help alleviate the

pressure from the government to stop us from irrigating, we have come up ourselves with a working group that looks after the vulnerability of river streams and how we can manage them properly and still survive in the farming industries. I was actually shocked, two years ago, I was asked to submit a report of the economic value if they pulled all the irrigation permits in my watershed. It was very easy for me to do, it just happens I am chair of the South Simcoe Potato Growers Association, which represents about 20,000 acres; I am chair of the Innisfil Creek Water Users Association; and I have been on for 4 years, on a pesticide panel. The thing that happened that was actually surprising to me, to pull the irrigation permits in our group, an economic value of \$81 million would be lost. It was very hard to explain to people how that value came about. But since then, to help assure even the general public in the area about how much due diligence we do, we have actually gone back and started testing groundwater ourselves, without talking to anyone on this panel here today. We have come out with significant results showing how little nitrogen, phosphorous, potash, and other attributes our farming will be putting in. I can easily explain that because back in the 1970s and 1980s when fertilizer was \$200 a tonne, you would not put a tonne on, unless you thought it would do you any good. Today, my soil testing says it needs 40 pounds per acre per year, we do not put 41 on; we are very good. Whatever the crop needs to produce, that is what we do. I think there is more due diligence on our part than the government realizes, but I do see significant issues I wish I could address. It is not to do with our watershed; it is to do with the Province. We have done some testing and I have yet to see it show up any screen, slide or anything else, but it will be a major contributor to pollution within the next 10 years. Some of these issues, I do not like bringing up to the general public because they might take it the wrong way, and you open up a can of worms. But generally speaking, on all the things we have been studying over the last few years and working on, we have always tried to come up with a solution, not just stating the problem. Some of the issues with regard to pollution have already passed, five years ago, and there have been places in the US and the world with very good solutions

on how to solve these problems. You will never live long enough to make all these things yourselves, so why do you not look at how they do it; it is working. I hope I am stating some of the problems, or sitting down and doing something about it, but I do not think we have the time here today to state it, but there are issues I would like to see addressed. Myself, I am here because some of my farmland has been flagged as a possible potential threat but I think I am far enough from the municipal well it will never happen. But we just need that reassurance that we are doing everything we can to avail to the Province, to please the MOE and all the other government bodies, and all of a sudden we are told we cannot do what we are doing. That is a problem I see coming.

D. Goodyear: The only statement that I would like to make is that I think I gathered the question there is with respect to the good work that is already being done in a bunch of communities, agricultural and otherwise. We need to reflect in the policies that we consider in the Source Protection Plan, and not reinvent wheels. I can tell you that the Source Protection Committee members, locally, are very much dedicated to not reinventing wheels and duplicating tools that are already out there. If a nutrient management plan addresses the concerns the Committee has, then we will just point to nutrient management plans. Or, if the Technical Standards and Safety Authority (TSSA) standards are sufficient to deal with the concerns we have with respect to fuel storage,





then we will just point to those. We are not going to invent policies that duplicate existing efforts as long as they fit the bill. That message has been heard loud and clear and our committee is very supportive of it.

Comment: Basically, my farmland surrounds the well, the municipal well. Is someone going to be coming in and telling me, what I can grow on my land now, or what it is going to be used for? If I am in the cattle business, is someone going to be basically coming in and saying, with the well there, you have to be so far away from it and lose part of that as my livelihood?

D. Goodyear: The process is to first identify vulnerable areas, wellhead protection areas, then to examine the land use around it, so obviously, your farm. There are a number of activities, agricultural activities that are potential significant threats, manure storage, some forms of application, pesticide application, those kinds of things. That is not to say that those activities are going to be prohibited. The concept of the Source Water Protection Plan is to manage the risks that are on the landscape today and reduce them wherever possible. As was pointed out by the previous speaker, we recognize that in a lot of communities, agriculture and other ones, there is already a lot of good work on the ground and that may well be sufficient to address the concerns that we have.

There may be a couple of suggestions or a couple of management practices that could further reduce risks and we would talk to you about those. But getting right down into what crop you can and cannot grow, no, the committee, I cannot envision going there.

Comment: I read part of the study and, basically, it said about having a septic system, depends on how close to the wellhead and whatever it is. They are saying if you were within the 100 m, you would be looked as possibly being a problem. I do not know if the health unit has changed their thing, but when you are building a house on the lot, it used to be that you could be within, have a septic bed, and within 50 feet of that you could have a drilled well. Why are you saying that because you are within that 100 m, the septic system is now a problem?

D. Goodyear: Good question. Just a quick clarification, the fact that a significant threat is identified, does not mean that it is a problem. Again, we are talking about managing existing threats. If you have a properly functioning septic, then I do not believe the Province considers a properly functioning septic system a significant threat. The objective then becomes, how do we ensure that the septic is properly functioning. What many municipalities are considering today is septic re-inspection programs. Every few years, whatever makes sense, someone comes out, pumps out your tank, inspects the septic and makes sure it is working properly; most people have to do that anyway. That is the kind of thing the Source Protection Committee is going to consider when they look at septic.

Comment: The other question I would like to know is, how many metres or feet, if I have a farm with a municipal well in the middle, is that a concern? If I am 2 km away, should I be concerned?

D. Goodyear: Unfortunately, it does vary from place to place and it is the function of a couple of things. It is a function of how much the well pumps, it is a function of geology and how transmissive the aquifer is. But, basically, there is a 100-m circle, which gives you some idea for proportion for the other zones. A 2-year time of travel, which is the most vulnerable outside that 100-m

circle, would be 300 or 500 m, a couple 300 m would be that 5-year capture, could be 300, 500, 600 m. It depends on where you are and the local geology. All of the people at the back tables can zoom right in to your property and answer those types of specific questions and tell you which zone you are in and the vulnerability score, and if we have counted any significant threats on your property. That is what the people with the computers at the back of the room can do. There is also a series of questionnaires that we have developed by sector, so we have an industrial one, a commercial one, a residential one and an agricultural one. If we have any information that is incorrect, then the other thing we are trying to do here tonight is to fix that. If you see a threat on your property, take the time to fill out that questionnaire and make sure we have our facts right.

Comment: The other threat many farmers are wondering about is, being where we are located, some of them are concerned whether to spend the money on what I am calling infrastructure. Whether you want to spend the money to get an irrigation system on that land, or spend the money for various activities, whether it is spraying, fertilizer or is it something that will actually inhibit us in the future, so we better not do it because you do not know when you will be able to do it. I do not know whether the government is going to say, it is a grandfather clause, you were there before.

D. Goodyear: First of all, I will repeat the question; it is an overarching question about whether to invest in infrastructure related to irrigation, as an example. Or, whether this program would render that infrastructure potentially useless down the road because of prohibitions. I cannot go all the way to an answer on that question, but what I can say is, if you do sit down with one of the people in the back, we can zoom right in to the potential threats associated with your property. I can say that if you wanted to talk about some future activity, we could tell you how it would be ranked, based on the information that we have and the vulnerability score of where your property is located. We can help you wrestle with the decision yourself. In terms of grandfathering, the Source

Protection Plan is going to address existing threats, so grandfathering, really is not a good option then. If the threat is identified, we have to address it.

Comment: We live down on the Gilford area in Innisfil and there are absolutely no sewage systems at all, everyone has a septic. The question is, any place that is 100 m from the shoreline, Cook Bay, is that a significant threat? Because there is absolutely no sewage, or any plan of sewage coming down right from pretty much at Lefroy, almost down to Bradford. It is a big problem for everyone.

D. Goodyear: The significant threats associated with a septic in a surface water setting are in the Intake Protection Zone 1. The maps in our assessment report and the people, again, at the back at the tables, can zoom right in there and let you know if you are in the affected area or not. But, basically, septics on the shoreline, close to the intake, could be flagged as a significant threat.

Comment: Basically, when you have mapping there of the highly vulnerable aquifers or the recharge area, is there a study of what, at my place, below the topsoil, basically, it is solid clay, so everything that is running off after hits the ground. The recharge, the aquifers, do you know what areas are actually out there in the Province? You said the Oak Ridges Moraine, up in this area, would they be identified?



D. Goodyear: Yes, there is, actually two of the poster boards there, have blow-ups of those products for the whole region. What we did to assess those, with the recharge areas, what we did was we assessed runoff across the region using a surface water model. Based on land use, soil type, topography, we estimated how much water runs off ground and how much gets into the ground. Wherever you had 15% greater than average recharge, the Province told us, that is the part that is significant, so that is where we drew those blue lines. That mapping product is on one of the boards and it is in the report. Similarly, highly vulnerable aquifer areas are those areas where the shallow unit, again, is overlaid by sand and gravel, that has been assessed across the entire region and we have the blow-up as well.

Comment: What is the rule for cattle drinking out of the streams?

D. Goodyear: The streams themselves, with respect to the Source Protection Program, are not really a factor. The Source Protection Program really has the blinders on for drinking water management. If that stream and that farm happen to be within one of those areas, then manure storage and livestock grazing could be flagged as a potential threat. If you are not in one of those areas, then, this program does not really have anything to say about it.

Comment: How do you know if we are flagged?



D. Goodyear: If you speak to one of the people at the back of the room with the computers, they can zoom right in to your property and they can tell you where on the landscape you are, relative to these vulnerable areas, and let you know whether you could have any significant threats associated with your property. They can zoom right in to your property and answer those site-specific questions for you.

Comment: Just a quick question, I understand that the funding for septic is changing?

D. Goodyear: Yes, it is going through a shift. We are switching from four pre-approved types of projects, to any project that addresses a significant threat identified in the assessment reports. There certainly are a number of significant threats listed with septic. If you are one of those, then there could very well be a stewardship project that is still eligible for funding that the program would cover. Two steps, talk to the people with the computers to find out if your septic is a significant threat and then talk to the people at the back of the room about getting on the list for a potential stewardship project.

Comment: In this area, we have wells, we have pipelines coming from Georgian Bay. Is it common knowledge, for where we are, there is a well in a very heavy irrigated area. Maybe this well is not drawing as much water. Maybe we are not as big a threat as you think we are because our municipal wells are not drawing to capacity. What is this pipeline from Georgian Bay doing? What is vulnerable up around Midland? The municipal wells that are drilled, are they all drawing the same quantity?

D. Goodyear: No, they are not. The amount of volume that they will pump out of the aquifers is a function of how many people they are serving. A well in Barrie or Newmarket is pumping a whole lot more water than some of the smaller rural centres in the region. The shape of the vulnerable area is affected by that; it is also affected by the geology. You will see in a map of the vulnerable areas, it is one of the two behind you there, that some of them that look like that, kind of big, roundish blobs that pull from a wide area, those are typically pulling a lot of water. They hold their water level close to the well and then pull

in from the sides. We also have some wellhead protection areas that look like great big pencil lines extending right uphill from where the well is located. That is partly because they are pulling very little water and they are basically just getting what is flowing by naturally, and it is also a function of being a really transmissive aquifer. We have different shapes and sizes of vulnerable areas and it is a function of the geology and how much water is being taken.

Comment: Is that public knowledge that we can find out, how much each well is drawing?

D. Goodyear: Yes, the Assessment Report characterizes vulnerable areas and describes how much water taking we used to estimate the capture zone.

Comment: This area here, we had municipal wells and there was supposed to be a pipeline coming from Georgian Bay. Where we are there is a well...

Comment: I can comment on that. Basically what he is getting at is the well on my property, the only time they pump is on a Monday for two hours to ensure that if the pipeline from Georgian Bay breaks down, they will have potable water. That is all it runs, basically, for, and maybe in the summer a little bit. Two hours on a Monday, they come in and check it.

Comment: That is what I am saying, there are different variations. One well is a threat and it is using a lot of water; that makes a difference in his well. Why do we draw more water on his well, why are we not drawing more water on the other one?

Comment: They do not need it.

D. Goodyear: I did want to point out that we are required to follow the same rules and procedures for stand-by or back-up wells. Because in the event, just like you said, if the pipeline goes down or one of the other wells goes down and all of a sudden you have to use the one that you only use Mondays, or you have to make sure that the water you are pulling out of it is safe and clean. If you stop worrying about it and allow that area to be developed and you do not worry about the risks there, you are kind of defeating the purpose of the program.



Comment: I live in a residential setting and I just discovered that our property is within the red zone, which is within 100 m of the municipal well. To me it seems that because of that fact, we have just transferred a very saleable property to maybe a not so saleable property, and I wondered how you would respond to that. It seems to me, given the heavy burden for facts and how this process proceeds, that it might be some time, that this is all in limbo; we are talking several years here before anything concrete can happen. In the mean time, if I were to market this property, I believe ethically, at least, I would be required to divulge that information to a perspective buyer. How would you respond to a person in that position?

D. Goodyear: We have heard differing opinions on the legal obligation to disclose that information, but I would concur with you ethically that it would make sense to share that information with perspective buyers. I would suggest, however, that being in a vulnerable area is a whole lot different than being flagged as a significant threat with a risk management plan that is going to cost money down the road. The maps, with respect to the vulnerable areas are going to become public information. The threat assessment is not, it just says how many threats are in that 100 m circle; it does not point them out. I live in a vulnerable area; I am within the 5-year capture zone of the municipal well in my town. In a way,



I am glad of it because I know at least what I am doing on my property is safeguarding the water that I drink and my kids drink. In terms of property values, I do not know what is going to happen for property values. I do know in similar settings with flood plain levels and other things that some of the regulations associated with Conservation Authorities, there have not been dramatic impacts to property values.

Comment: I live on the far west end of Nottawasaga, right in the heart of a very large proposed gravel and limestone extraction project. Part of my question is, source water protection, does that take into consideration some of this very, very initial, they have not even applied, but the depth that they want to go is 200 feet below grade, 150 feet below the water table. If you look at a map of all the creeks and flowing wells and coldwater fisheries, they want to do, there will be 10,000 acres, they want to do a 2,200-acre pit. A large amount of farmers, I am just a 2.5 acre, me, my wife and our three kids, is this taken into consideration, it has not even started yet. Will there be any recourse? They will have to apply to you or anyone else so that it can be made sure that the detailed review for approval of something of that magnitude will go ahead.

D. Goodyear: The question, are future projects considered, in a word, no. We use the information we have available up to a couple months ago, when we

were doing the threat assessment, so, a potential project was not considered because we did not know if it is considered. In terms of what will be considered, all of this information, with respect to the Assessment Report, is being reviewed and approved by the MOE. Between the MOE, in terms of PTTW and the Ministry of Natural Resources (MNR) in terms of the aggregate resources licence, both of those ministries are going to have this information, with respect to vulnerable areas and water quantity stresses. We are expecting that those agencies are going to use this information, once the Source Protection Plan is developed, to inform their reviews and decisions on those kinds of applications. The last point I will make is that with respect to aggregate extraction, there is only a couple of potential threats, one is related to the water quantity side, the dewatering if you are going to go below the water table, and the other is associated with fuel storage. Unless you are right tight in one of those vulnerable areas, there may not be a significant threat identified and this may not be the tool that you are looking for.

Comment: Being involved in farming, I do not know what the threats are, in terms of chemicals being used. Is there some way to find that out or to look at studies done by people that you are using the information from? To what degree is our water, at the present time, on average, being polluted by any type of chemicals applied to farmland? I thought that we were using chemicals that were registered and everything was breaking down, chemically, and not affecting everyone. But, all of a sudden, I hear that there might be possible chemical pollution. I do not have any idea of what those threats are.

D. Goodyear: A couple of things, with respect to those threats, there are a couple related to agriculture, application and storage of source materials, agricultural and municipal source material, biosolids, fertilizers and pesticides. Those kinds of things are potential threats. That is not to suggest that there is a problem associated with those activities. The MOE considered those land use activities, they are very broad categories and they looked at four factors: how much chemical or pathogen is

being used or stored; how likely is it to be released to the environment; how nasty is it or how toxic is it if it gets out; how mobile, if it does get released. Those factors were considered when they evaluated those 21 threats. Those 21 threats turned into 400 pages of circumstances. We will share that with you, if you are interested in those 400 pages. Basically, what has been assessed is those four factors for every land use activity. I can tell you in our region, we have lost municipal wells to some contamination. We have some industrial contamination, we have landfill contamination, we have a water quality issue related to nitrogen, so, they are out there. The nature of this program is again, not to suggest that these activities are bad and need to be prohibited, we just need to manage the risk associated with them.

R. Ogilvie: So, your offer to this person is if they want to follow-up, you are prepared to have staff go through the 400 pages?

D. Goodyear: We can. We can certainly provide that reference. When you sit down at the computer, we can look at which of these is potentially flagged as a threat, and we can talk about the MOE background.

Comment: You mentioned that the maps are going to be on the website, are they there now?

D. Goodyear: They are there now. www.ourwatershed.ca – that is full assessment report. And we have DVDs at the side table there with the full report as well, which you can take home tonight.

Comment: So, basically, when we sit there and look at all these problems that could cause our drinking water, is every landfill that is going to be going in, in this province, going to have to go, basically, through the same?

D. Goodyear: Remember that second variable in our risk assessment process. The activity, the chemicals and pathogens associated with it, is one side and the other side is where it is located. A landfill in one of these vulnerable areas would be flagged as a threat.

Comment: Is that, basically, why Site 41 was stopped because they said they were going to go ahead, with the aquifer right below it?

D. Goodyear: We provided the County and the MOE with some information relative to Site 41. The four vulnerable areas that you see there, the proposed site was within a portion of a recharge area, and I believe a sliver of a highly vulnerable aquifer area, but it was not in a wellhead or intake. We provided that to the MOE and the County. I think it was the County that made the decision and the MOE, I do not believe revoked the permit; I think it was a County decision.

Comment: I have a livestock farm within the 100 m. What am I not going to be allowed to do? I have spread manure, fertilizers, spray on all these years, for 30 plus years. What is going to happen now?

D. Goodyear: The Source Protection Committee is going to be considering what we do there. Within that 100-m circle, that is the highest vulnerability, so the Committee is going to consider management practices, they are going to consider future land use planning policies. I do not want to put words in their mouth in terms of what kinds of policies they are going to consider. But the Plan has to address significant threats. The Clean Water Act says that where a significant threat has been identified, the municipality and landowner, collectively, have to address that threat. We need to take steps to mitigate. That does not mean prohibition and I understand that is the logic people are making. We are talking about managing risks, not prohibiting activities every time. We do have to



reduce the risk where significant threats are identified; we have to take steps to reduce it. What those steps are, you may already be doing, and there may be a couple of extra things we want to consider, but it does not make it prohibitive every time.

Comment: What about neighbours, tiled land and drainage, which is next to these wells. They are putting sludge on them now, but they are not considered within this circle?

D. Goodyear: There is a very interesting question that we have not been posed before. That is something that I would be concerned with and we would be interested in collecting that kind of information. We did attempt to get tile-draining information when we were undertaking the study. You are quite right; the local drainage could be relevant in some of these cases. We do not have some of those site-specific details, so it may or may not be captured today. We would like to know.

Comment: Is there going to be any circumstances where you consider compensation or anything else, I am not saying you need to do that, why would you not move the well?



D. Goodyear: That may well be a consideration that does happen. We are required to consider the economic implications of the policies that are put in that Source Protection Plan. If it is cheaper, infrastructure-wise, than it is to address a bunch of threats, then that will be considered.



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