



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on Natural Resources

RNNR • NUMBER 113 • 1st SESSION • 42nd PARLIAMENT

EVIDENCE

Thursday, October 18, 2018

Chair

Mr. James Maloney

Standing Committee on Natural Resources

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• (1105)

[English]

The Chair (Mr. James Maloney (Etobicoke—Lakeshore, Lib.)): Good morning, everybody. Thank you for joining us.

We have a number of special guests with us today. Thank you for being here.

Most importantly, we have two groups of witnesses, one by video conference. We have Mr. Connors from the Canadian Interagency Forest Fire Centre. From Tree Canada we have Michael Rosen, President, and Léo Duguay.

I understand, sir, at one point in the past you were sitting in other chairs around these tables, so welcome back. The next part will be redundant for you because you know the procedure.

For the other two gentlemen, we're going to give each group up to 10 minutes to make a presentation. Then that will be followed by questions from around the table. You can deliver your remarks or answer our questions in either official language. I anticipate you will be asked questions in French as well as English, and there are translation devices available if you need them.

Mr. Rosen and Mr. Duguay, why don't you start us off.

[Translation]

Mr. Léo Duguay (Vice-Chair, Board of Directors, Tree Canada): Thank you very much, Mr. Chair.

It's interesting to see me on the other side. In my presentation, people will see me in a somewhat different, and not at all partisan, light. Trees aren't partisan.

[English]

Thank you very much for inviting me and Michael to be here. I am not a tree expert, but I like trees. I know how important they are to people. They help clean the atmosphere. They help people in communities feel better. They provide shade for people. There is a number of really good things about trees that we all endorse.

Tree Canada was formed, interestingly enough, a long time ago in 1992 by government action. The government funded an organization to plant trees. We have since morphed from an organization dependent on government money to an organization that is almost now exclusively financed by the private sector.

The very interesting things that people do... I'm part of a community of 140 houses, and this fall we are planting 29 edible

trees. This will produce way more fruit and edible nuts than we could ever eat. We're partnered with a group called Hidden Harvest Ottawa, which will help with the harvest and redistribute the food.

Since 1992, we have planted more than 82 million trees. We average more than 300,000 trees a year, all almost exclusively funded by the private sector.

As you might expect, the association gets calls from you and from groups all over the country asking about trees and what is happening and what can be done. We employ a large number of foresters who are experts in the field. Whenever I go and do something for Tree Canada, I'm always well supported by an expert. If you have easy questions, they come to me. If you have hard questions, they go to the experts.

Our expert today is the president of Tree Canada, who has been with us a long time and who knows about trees.

Mike.

[Translation]

Mr. Michael Rosen (President, Tree Canada): Thank you very much, Mr. Duguay.

I'm very pleased to be here with you.

[English]

My name is Mike Rosen. I'm the president of Tree Canada. I'm also a registered professional forester in Ontario, so I have some background knowledge. I've worked for 35 years in forestry, one way or the other.

Thank you so much for inviting us here to talk to you. What I want to talk to you about today is the dilemma that Canadians face. We're stewards of 10% of the world's forests. We are the forest nation. It's very important for our country, yet we're a very urban people. Over 82% of Canadians now live in cities and towns. This is the dilemma that we at Tree Canada try to wrestle with, if you will. It's how to reflect trees into the lives of people who are essentially urban people.

The committee had asked us to come in and speak about forest pests. I do want to touch briefly on those, because you've asked me specifically about the mountain pine beetle and the spruce budworm.

The mountain pine beetle is an interesting one for us, because it's a native insect that normally was controlled by low temperatures in the winter. We don't get those temperatures anymore. We get hot summers as well. It's meant that we've had a proliferation of mountain pine beetles beginning in 1996 in British Columbia. It absolutely decimated the lodgepole pine population of British Columbia. Then it crossed into the Rockies in 2006 and entered into Alberta. We were really lucky because we worked with the Province of Alberta on a program to actually replace residential trees on private land that were killed as a result of the mountain pine beetle.

There are a number of things that can be done to try to limit the infestation of the mountain pine beetle but it's incredibly difficult, just as it's difficult with the spruce budworm. Spruce budworm is another native insect. It functions on a 35- to 40-year cycle, but it's really predicated on mature balsam fir, overmature balsam fir. Unfortunately, balsam fir is not a tree that a lot of mills like to use. It's an underutilized species, if you will.

There are some things that the industry can do to protect trees until they're ready to harvest, but it's mainly a stop-gap measure. It's really an insect that ecologically has a purpose in the forest and is on a cyclical basis.

The other thing that I was asked to talk to you about today, though, was actually the Canadian urban forest strategy. Tree Canada was part of a larger effort that was called the national forest strategy. It went from 1988 to 2008. It was a government NGO effort that really tried to show the world that Canada is moving towards forest sustainability. In the last iteration of that strategy, urban forests were included. When the national forest strategy was not renewed after 2008, Tree Canada picked up the ball with respect to the Canadian urban forest strategy, and we have kept that alive to date.

We interact with 950 urban forest professionals across the country in implementing and keeping alive the Canadian urban forest strategy. What's interesting for you as a committee is that the words "urban forestry" were actually invented by a Canadian. Dr. Erik Jorgensen, in 1974, at the University of Toronto, coined this term, which was totally oxymoronic until recently. People could not put the two words "urban" and "forestry" together. It's only lately that people really get it. Now we have a proliferation of groups across the country, like Trees London, GreenHere and Soverdi, that are working to keep our cities and communities green.

The irony I want to tell you about is that unlike every other G8 nation, we really don't have urban forestry reflected at a federal level. It's really been relegated to that of the municipalities. It's in stark contrast to our friends to the south, the United States, that have, at the deputy minister level, someone actually responsible for urban forests. There are a number of historical reasons for that, but it's something that we would really like to see remedied.

We don't have to tell you how important cities are. No matter how you look at it, environmentally we need trees in our cities. People are living in our cities. Besides that, there is an economic piece to this as well. We have to attract the best companies and the best minds to our cities in Canada. We're up against all the other cities of the world. Industry wants to locate their workers in a place that is green and welcoming, and we feel that trees obviously add to that. I just want

to get the point across that the tree piece is not just an aesthetic piece. It's also something that has to do with livelihoods as well.

There are many problems occurring in our urban forests. They've actually been in decline in the last 20 years. Our Crown cover has been going down in the last 20 years, and we really want to see that remedied. There are a number of things that we could be doing, but the main point that I want to leave you with is that whether it's Dutch elm disease, emerald ash borer or whatever that is invading our urban forests, we need the help of the federal government to do that.

I'll pass it over to Léo.

•(1110)

Mr. Léo Duguay: In the document we provided, we've given some very specific recommendations.

Let me hive that down to two things.

Canada's urban forest planning and operations are implemented solely by municipalities. That ought not to be so. Our challenge to you is to do something. The federal government is not involved in a very important area of urban forestry, and you ought to be involved. We're the living proof of how a small amount of federal government money can lead to an organization such as ours that is now self-sustaining. That can be done easily.

There's a whole second part of it that naturally can be done more efficiently by the federal government. That has to do with education. There are a lot of things that you can do. As an example, the Library of Parliament has a lot of education programs to promote democracy. Natural Resources Canada could do the same to protect and enhance the urban forest.

I'll leave you with those two things. You're not doing much now, so do something.

•(1115)

The Chair: All right, on that note, thank you, Mr. Duguay and Mr. Rosen.

Mr. Connors, the floor is yours.

Mr. Kim Connors (Executive Director, Canadian Interagency Forest Fire Centre): Mr. Chair and members of the committee, thank you very much for the opportunity to appear before you this morning.

While I understand your focus is that of forest pests, I will point out that I'm not an expert in the relationship between forest pests and quantifying the subsequent fuel loading for wildland fires. However, I can say with confidence that one only need look at the province of British Columbia in both 2017 and 2018 and the increased fire intensity in those areas affected by the mountain pine beetle. I would also further point out that in Ontario, in 2018, some of the areas that burned had been damaged by the spruce budworm.

I want to focus my time this morning on the increasing wildland fire problem in Canada, which is related to the increased fuels that are presented by the forest pests, and the challenges associated with our ability to respond.

Canada is experiencing increased incidence and intensity in the occurrence of wildland fire. As the impacts of climate change grow, fire size and severity are likely to increase and the fire seasons will become longer. At the same time, more human activity is taking place in the forests, creating greater consequences for the social and economic health and safety of Canadians.

Recently, we've experienced record-breaking temperatures on four continents. Wildfire seasons in Canada are longer, wildfires are increasing in size and intensity, and wildfire-related impacts are changing at an alarming rate.

Provincial states of emergency related to wildfires were declared in Saskatchewan in 2015, in Alberta in 2016, and in British Columbia in both 2017 and 2018. Since 2011, approximately 175,000 people were evacuated from Canadian communities due to wildland fire. Public health, communities, infrastructure, environment and the economy are also affected. Since 2015, suppression resources have been fully committed nationally, and international assistance was required. This trend will continue.

While the statistics have not been totally compiled for the 2018 wildland fire season, intuitively I can tell you, from our organization, that we know new records will be set in terms of multiple provinces and territories being challenged at the same time, namely in 2018: Quebec, Ontario, Manitoba, Saskatchewan and British Columbia.

Pan-Canadian and international resource sharing of personnel and equipment is an annual requirement. Since 2015, Canada has imported around 2,000 highly trained and experienced human resources from international partners to address the demands of our increased wildland fire activities.

Wildland fire is a wildfire management, public safety, public health, climate change and community issue, with indigenous, rural and remote communities being particularly vulnerable to the changing climate.

In 2005, the Canadian wildland fire strategy was signed and approved by all levels of government in Canada. Unfortunately, the financial commitment envisioned in the strategy was not realized, and while some incremental progress was made, the progress fell far short of what was required. Fortunately, in 2016, the strategy was refreshed and renewed and is now the focus of the Canadian Council of Forest Ministers, who agreed recently in Halifax to accelerate its implementation, but the urgency of this implementation cannot be overstressed as the impacts of climate change become more apparent in Canada and the goaldposts continue to move.

Transformative change is required. There is an urgent need by all Canadians to fully implement the Canadian wildland fire strategy and to do so with great haste. This will definitely involve the federal government.

I thank you very much for this opportunity to address your committee.

• (1120)

The Chair: Thanks very much, Mr. Connors.

First up is Mr. Serré.

[*Translation*]

Mr. Marc Serré (Nickel Belt, Lib.): Thank you, Mr. Chair.

[*English*]

Thank you witnesses, for your work.

[*Translation*]

I'm going to ask you a few questions in French.

Mr. Connors, during the forest fires in northern Ontario, Parry Sound, Lady Evelyn and River Valley, I had a chance to go and see the work you do everywhere in Canada. I just want to congratulate you on your efforts all across the country.

Mr. Connors, do you have any data or statistics that you could give the committee on your experiences? You're there when forest fires break out. You say that there are more fires and that temperatures have risen.

Do you have any specific data on insects?

[*English*]

Mr. Kim Connors: Thank you for your compliments, to begin with.

I would be able to provide data on the statistics for the increased fire intensity and severity and the increased movement of Canadian resources and international resources to assist with those fires, such as you witnessed in Ontario this year. In terms of data related to fuel load as a result of pest and insect damage in Canada, we would need to seek other expertise on that. There is data, but unfortunately we're not the experts or the holders of that data.

Mr. Marc Serré: It would be appreciated if you could provide that data to the committee at a later point.

[*Translation*]

Messrs. Duguay and Rosen, you mentioned two points in your recommendations. I'm not an urban guy, and cities have enough resources to take care of themselves. You may disagree with the idea that they don't take care of forests, but I'm looking more at the role of Canada's municipalities.

Do you have any specific recommendations for the government?

Forest management is obviously a provincial jurisdiction. We are federal MPs. You're talking about the municipalities. So that's a third level.

What are your specific recommendations for the federal government in collaborating with the provinces and municipalities?

I'd just like to understand the division of powers in this area.

Mr. Michael Rosen: Thank you for your question.

There are two ways to answer your question.

First, the federal government lacks leadership. It projects an image more than anything else.

It would be good for the Canadian Forest Service's website to have a section that reflects the realities of urban forests. There's currently nothing on that subject there.

Second, many researchers conduct forest research for the federal government. We think they need to focus more on urban forests. Many municipalities will be looking to the United States and Europe for solutions to Canada's problems. That's unfortunate because we have qualified people to answer questions, solve problems and address urban forest issues. We're not using that knowledge as we should.

As I said in my presentation, we are the only G8 country that doesn't have a deputy minister responsible for urban forests. More than 80% of Canadians now live in cities. Consequently, this is a national issue; it's not one that should be studied only by the municipalities.

• (1125)

Mr. Léo Duguay: I'd like to add that 82% of Canadians live in urban areas, and that's where the problem originates. We must not separate the two and say they can take care of themselves; we're all responsible for doing what we can to solve the problem.

Mr. Marc Serré: Thank you very much for the work you do.

What can we do to increase the value of those 82 million trees?

I'm from a northern Ontario riding, Nickel Belt, and my colleague Mr. Lefebvre is from Sudbury. We've planted 14 million trees. We've been recognized by the United Nations. Before that, in 1972, everything was black and rocky in our region. Keep up the work you're doing.

The last question I want to ask concerns education. Mr. Duguay, as you know, if you tell the committee to do something, it will do nothing.

Do you have a specific recommendation for us about what we should do?

The federal government has a lot of money. However, you said the private sector was very much involved.

How can we improve what the private sector is currently doing?

Mr. Léo Duguay: Here's an example.

Parliament passed a bill establishing a date in September for National Tree Day. This year, the minister, the Hon. Amarjeet Sohi, came and planted a tree with us. The government uses the bill to hold a ceremony whereas it could be used to establish a major day of education across the country. The government has a lot of resources at its disposal. It could simply tell all departments that have a role to play to lend a hand.

[*English*]

Mr. Michael Rosen: I would like to add something to that as well.

It's increasingly evident that we are spending much less time outside than we ever have in the history of people, and particularly here in Canada. It doesn't matter if you're in the south or if you're in the north. I'll put it to you this way, children are spending a lot of time in front of screens—you know that; everybody knows that—

and it's having an effect on our health, mental health and physical health.

I am saying that this is an issue that's much greater than our needing a few trees on a boulevard. This is a health issue. It's an important issue. I would say that an education.... There are two pieces that I want to speak to as far as an education program is concerned. We need—

The Chair: Sorry, Mr. Rosen, but I am going to have to interrupt you. We're beyond Mr. Serré's time, but you should be able to get that in at some point.

Mr. Eglinski.

Mr. Jim Eglinski (Yellowhead, CPC): I'd like to thank all three witnesses for coming out today. It's very good to see you here.

I'll start off with the two gentlemen who are present and live.

You were talking about municipalities. I know we have things like the national building code. Most provinces have a provincial building code, and a lot of municipalities have a municipal building code.

Are you finding more and more municipalities across Canada adopting a green space into all their new projects? Do you feel that's an area in which the federal government might be able to participate? Anybody who wants to make a development, a new subdivision, has to have a certain amount of green space and forested area.

Mr. Michael Rosen: I think that you're absolutely on to something. We don't have any kind of standardization in that respect, and I think it's really needed. I think you're really on to something.

I was in China two years ago. They have a system called "forest cities" in which they accredit how many metres 80% of the population is from a green space area. They have a whole bunch of criteria. I think that's definitely the way to go. Encourage municipalities to incorporate more green space in their development. Development is going to occur, but how it's going to occur is always the question.

Mr. Jim Eglinski: I'm glad you mentioned China. I was there a few years ago and I toured one of their recent urban developments that housed about 150,000 people. I remember at that time the contractor told me that 50% of it had to be green, so they had to go underground with a lot of the parking structure. I think there are areas that we could enhance and work on nationally.

I wonder if you could tell us approximately how much money your organization spends a year in the promotion of your programs.

• (1130)

Mr. Michael Rosen: We raise \$6 million a year to run our programs, and every part of our program has an educational piece. We plant 300,000 trees a year, but honestly, I'll say this to the standing committee, 300,000 trees in a country the size of Canada is not a lot. It's less than a drop in the bucket. We don't do it because we think we're greening all of Canada. We do it because we think we're setting an example for Canadians. I think that's the important thing to remember.

The incredible thing is that the \$6 million that we're raising pretty well solely from the private sector is being matched, if you will, by a lot of volunteer labour that comes out of our municipalities and our volunteer base as well.

As I just said, education is a piece of all of our programs. We make sure that's a part of it.

Mr. Léo Duguay: I'd like to add one quick element. Raising that kind of money, for which the board and others are often responsible to steer, is not an easy job. It's not easy to raise that kind of money.

When we say to you "do something", we're really saying, "Encourage people. Do more. Make it more important. Make it a bigger issue. Set code rules. Do all kinds of things that will make our job easier." If you choose to give some money, we won't turn it down.

Mr. Jim Eglinski: All right, thank you.

I'd like to now direct my question towards Mr. Connors.

I was reading through some of the fast notes—I'm not regularly on this committee—and I noticed that on October 4, one of my cohorts, Mr. Whalen, addressed one of the witnesses. I believe that was Mr. Alex Chubaty, from Healthy Landscapes.

He made a comment that I found a bit alarming, and I'd like you to respond to this. He asked why we are doing anything regarding the mountain pine beetle, and went further, after Mr. Chubaty responded to him, to ask why we don't just leave well enough alone.

I wonder if you would comment on those two comments. They are alarming to me, when I see what's been happening in western Canada.

Mr. Kim Connors: Certainly I'll respond to them.

I would start off again by reminding you that my expertise is not in entomology. What I would assume that the gentleman was saying is that it's a natural cycle and maybe we should leave that alone.

I guess my response would be that, involved in an organization that responds to public safety and wildfire suppression.... I mean, we know that fire is a natural occurrence. There's a lot of work done in this country to help fire have its natural place in society. We also know that wildfire can be devastating to human life and livelihood under the right conditions.

Again, I couldn't argue against the gentleman, because I don't know from where he was coming. I would say that with climate change and with the increased amount of fuel available for consumption, public safety is at risk, particularly in the northern communities, indigenous communities. We need to invest in the Canadian wildland fire strategy to try to protect those communities.

Mr. Jim Eglinski: Thank you.

I asked this question to the last group.

What would your organization spend, on average in a year, assisting communities and other agencies around Canada in protection of our forests and public safety?

Mr. Kim Connors: In total, Canada spends over a billion dollars now a year in wildland fire protection. The Canadian Interagency Forest Fire Centre, of course, has a collaborative model. We spend

roughly \$2 million to help those organizations. In Canada, if you look at the provinces and territories and Parks Canada collectively, they spend now about \$1.2 billion, which is up from five years ago.

If you would have asked me that question five years ago, I would have said it was about \$750 million. Last year alone, British Columbia spent \$750 million and will probably do so again this year. Ontario, of course, this year was devastated and had one of the worst seasons they've had in probably 20 years. They will spend about \$300 million or \$400 million.

• (1135)

Mr. Jim Eglinski: How much time do I have left?

The Chair: You're right at seven minutes.

Thank you.

Mr. Cannings.

Mr. Richard Cannings (South Okanagan—West Kootenay, NDP): Thank you, all, for being here today.

I'll pick up again with Mr. Connors.

I first want to thank you and all the firefighting agencies across the country for the work you do. I'm from the Okanagan Valley in British Columbia and we've had a tough go of it three out of the last four years. You mentioned the last two years especially. If we didn't have actual flames in our backyard, it was thick smoke.

I had the opportunity in the middle of July to tour the major air support base in Penticton that does air support for the southern part of the province. They hadn't had too much work up to then but while I was touring the planes and actually sitting in a cockpit, the alarm bells went off and I got out of their way. I think they didn't have a minute off until the end of August after that.

I know you've said that you don't have that expertise with the pests and I would just say that a lot of the fires were in mountain pine beetle-affected areas and I'm still waiting to see the reports and the science on that. There's some indication, I read this summer, that certainly when trees are red, still with dead needles, there's obviously increased risk.

When you have 58% of the lodgepole pine trees killed in B.C., it's kind of by chance you're going to see a lot of the fires in those areas. I'll leave it there because that's not your expertise.

I wanted to ask you about something, and maybe you can say I don't know this either. In terms of looking to the future, in British Columbia we have the forest devastated in the interior by mountain pine beetles and now by fires, and we're obviously facing a period now where we have to rebuild those forests, replant. I'm just wondering if you have any thoughts about that process or whether the firefighting agencies are involved in those plans for the future in terms of how are we going to design those forests to make them more fire resistant?

Mr. Kim Connors: That's an excellent question. In Canada, that thought and that strategy would fall totally within the provincial organizations. The forest service in British Columbia of course would be having those dialogues. I know you probably know this, but you have a great resource in British Columbia in Dr. Lori Daniels with the University of British Columbia, who has such a great grasp on the relationship between forest pest damage and fire and fuel load.

You're right, there are strategies around how we recondition the forest to adapt to climate change and to all of these issues, because, as you say, 50% of it is red. That means the fuel moisture content is gone. That means it's readily available for fuel. Anybody who's had a campfire in their life knows the difference between dry and wet fuels and what that means.

Clearly, provinces and territories and all levels of government need to have a strategy around how we reposition the forest and how we think about what the future will look like to meet both the economic and the public safety aspects.

Mr. Richard Cannings: In terms of public safety, the interface fires are of course what concerns people the most. That's where most of your efforts I guess are concentrated when you have to triage where you go.

Do you think there's an increased federal government role or responsibility in funding efforts to do these fire smart programs around communities, thinning the forest around communities, which would create jobs in the interior of British Columbia and elsewhere and also make our neighbourhoods safer because you wouldn't have so many catastrophic crowning fires entering communities as we had in Fort McMurray, Kelowna and elsewhere?

Mr. Kim Connors: Absolutely, 100%. The tools are there and the Canadian wildland fire strategy speaks to.... You refer to FireSmart Canada. It's an excellent tool for communities to build resiliency, to be prepared for these types of situations. The only thing lacking is the investment piece. That was recognized in 2005. It was confirmed in 2016, and it was talked about again in Halifax this year with the Canadian Council of Forest Ministers.

There is a plan in place. There are tools to do exactly what you said, and what is missing is the investment. I personally think the Government of Canada can play a huge role in leadership to help increase the amount of fire smart and mitigation strategies across this country and work with communities to become resilient.

• (1140)

Mr. Richard Cannings: Thank you.

I'll turn to Tree Canada then.

Thank you for your efforts. When I lived in Vancouver, we had an elementary school that my kids went to at the end of the block, and it was just two square blocks of gravel. My wife worked on a committee to plant trees there. I don't know but maybe your group was involved, so thank you for that. I'm very heartened to hear your comments about how Canadians living in urban environments need that connection with trees and nature. It's a big part of what I've been doing over my career.

I want to talk about the gypsy moth. We had an issue with gypsy moths. I think it was in the early nineties. It was Asian gypsy moth. In Vancouver there was spraying with Bt, which was apparently successful, but we still have European gypsy moth showing up in spots in B.C. every year.

A lot of those incidents happen in urban sites, and there is often concern around aerial spraying. I'm wondering if you could comment on that, how people react to it and what the issues are.

Mr. Michael Rosen: That's a good question. It's a difficult one to respond to, but I'll try to do the best I can. I've had a career long enough now that I can actually remember different waves of gypsy moth. I've worked mostly in eastern Canada, although I did work two summers on Vancouver Island, at MacMillan Bloedel and Weldwood, actually, as a student. It seems that left to its own devices, the European gypsy moth has been mostly controlled, if you will, by natural predators. It's actually quite an amazing story.

I was a forester at one point. Before Tree Canada, I worked for the Ontario Ministry of Natural Resources, and I remember in the early nineties when I had to respond to a gypsy moth infestation north of Toronto in a township called the Township of King. I remember that the ministry was proposing a spray with Bt, which is a natural bacteria that the insect ingests. It kills the insect and has no effect on other wildlife, so it's very good to use. It was in a forest situation. I remember the mayor calling me, very upset with respect to the spraying, but years later, when the infestation arrived at her doorstep, she was on the phone again asking, "Where's the ministry?" and that sort of thing.

On a single tree, I think it's very difficult to use those products. In a forest situation, they can be used and Bt seems to be the one to go with.

The Chair: Thanks.

Mr. Hehr.

Hon. Kent Hehr (Calgary Centre, Lib.): Thank you, Mr. Chair, and thank you guys for coming and presenting to the committee. Your knowledge is greatly appreciated.

I listened with great interest to Mr. Connors' initial comments regarding the growing threat of wildfires and their robust and apparently growing nature throughout this country. I'm from Calgary, Alberta, but we were under siege up in Fort McMurray, Alberta, where we had the fire that was called "the beast" because of how intense it was, how it kept growing and how it threatened not only the natural landscape but almost the town of Fort McMurray. I'd like to applaud the first responders and firefighters up there who did such a great job.

I have a question for you. Although you can't put a specific, exact cause on any one fire, is it your organization's opinion that climate change is the cause of increased fire breakouts and disasters throughout this country?

Mr. Kim Connors: It is our belief, based on the science that has been presented, that climate change has led to the increase in intensity and complexity of the fires after they start. Out of ignorance, I'm not sure if there's any correlation between fire starts and climate change, but there is a correlation in terms of fire intensity and complexity of suppression, and the length of the fire season.

For instance, this year was precedent-setting for our organization, in that we started moving Canadian and international resources in Canada in the month of May. Normally, in the month of May all the provinces and territories and Parks Canada are capable of handling their own internal situations. They couldn't this year, and it went through until late in the month of September. Those are the effects we're seeing of climate change, the length of the season and the intensity and complexity of the fires.

• (1145)

Hon. Kent Hehr: Thank you very much.

Mr. Rosen, my question to you is the same. Do you believe that climate change is affecting urban populations of trees, that it is the cause of what is occurring in our cities and the broader landscape and it is to blame for our decreasing forests?

Mr. Michael Rosen: There's no doubt that a changing climate is producing changes in all forests—rural and urban for that matter. We've seen that in a very concrete way at Tree Canada. We respond to natural disasters under a program called Operation ReLeaf. We found that it started with the Kelowna wildfires in 2003 and then it went into another year. We're finding that the years of fires are increasing, and we're being called into action to reforest areas after these wildfires.

I'll tell you one quick story. We've done a large program in Fort McMurray. We planted over 50,000 trees in Fort McMurray after 2016. We're very close to the municipality. We planted recreational trails. We're still waiting for the residences to be fully constructed. We figure next year is going to be a really big year for us for planting. Ironically, I was in Fort McMurray on September 22, attending a ceremony with the mayor about the planting of trees at some of these residences that were burnt in 2016, when my phone went off because we had tornadoes in Ottawa and Gatineau.

I think emergency planning is a big part of what municipalities have to deal with now, because they're being called in to take care of trees that are under incredible duress from things like.... Who would have thought a tornado in Ottawa-Gatineau? I had to check. I didn't think it was real when I first heard about it. Yes, it's very real. Obviously, Tree Canada will be moving to have some kind of a program to help, because we're part of this community, so we'll help this community as well.

You're absolutely correct. I think a changing climate is contributing to the intensity, as Mr. Connors said. Also, the nature of these disturbances is very irrational, very unpredictable and very severe. That's part of what we have to deal with.

Hon. Kent Hehr: When you advocate for policies for governments to adopt towards the actual management of forests—whether large scale or small scale or whether they be outside the municipality or inside—what policy parameters would you like to see governments implement that will be the best for our forest health and urban management, given the pressures that bear?

Mr. Michael Rosen: I think part of the question relates to the standardization of things across the country, the amount of green space and also certain practices—for instance, the use of many species of trees not only in rural areas but also in urban areas. The urban forest fell into a pattern of planting one type of tree along many streets, and that didn't lead us to a very good place after Dutch

elm disease and emerald ash borer. Therefore, part of it is standardizing or showing municipalities the pieces that they need to take control of with regard to choosing their species of trees, choosing the genetic diversity and how to maintain them—all with respect to our changing climate at the same time.

This is why we were speaking about a role for federal scientists and for the federal government to get involved because we feel that municipalities want this stuff. They're thirsty for knowledge. They're thirsty for workshops, conferences, knowledge and direct technology transfer around managing trees in their communities. They're not getting that as much from Canadian sources as they could.

• (1150)

Hon. Kent Hehr: Michael, you told me that 300,000 trees are planted in urban municipalities per year. Is that correct?

Mr. Michael Rosen: And in rural municipalities. We do seedling plantings as well.

Hon. Kent Hehr: Yet the number of trees in these jurisdictions is decreasing.

Mr. Michael Rosen: It is declining, yes. In Vancouver for instance, the canopy cover has actually gone down in the last 20 years in spite of all the wonderful green efforts and great community efforts and all that. Part of it is invasive insects. That's taking a big toll. A lot of it is actually figuring out how we densify our municipalities. Remember we want to do smart growth. We don't want to create a lot of suburbs. It's much smarter to develop within our municipalities, but that can take a horrible toll on the trees unless we protect the trees. That's what we're dealing with these days.

Mr. Léo Duguay: Just to—

The Chair: I'm sorry, Mr. Duguay. I'm going to have to stop you there.

Mr. Léo Duguay: I'll get it in.

The Chair: You will get it in.

Ms. Wagantall, you have five minutes.

Mrs. Cathay Wagantall (Yorkton—Melville, CPC): Thank you, Chair.

I appreciate having the opportunity to visit with you again, Mr. Duguay and Mr. Rosen, and I appreciate what you're saying. I received my little lapel pin from Tree Canada at Canora, Saskatchewan, a town of a little over 2,000 people that planted 260 trees along a walkway in a park and really appreciated the opportunity to work with you. It is among the top 10 places to retire to in Canada. I'll just make note of that for all of you.

Mr. Michael Rosen: That's nice. It's something to think about.

Mr. Léo Duguay: I don't even know where that is—

Voices: Oh, oh!

Mrs. Cathay Wagantall: There you go.

However, I want to draw on the point you made that one thing government could do would be to encourage Canadians to value their trees more and to get out of that environment where you don't get to experience them. The truth is, to do that, most of us have to get out of where we live and go somewhere else.

It's a known fact that in Canada there are at least four times as many camping units as there are opportunities to camp. It is an issue for people to be able to get out to enjoy that. It's important for Canadian families, and it's also important for the tourist industry. My concern is that lately when it comes to private SMEs, smaller campgrounds in Canada, the government decided to redesignate them as passive income, which increased the taxes to the place to where, as I've heard from small campground owners in Ontario and in Saskatchewan, they can no longer stay in business.

When you look at a whole-of-government approach to making sure that the environment is valued and that the outdoors are valued, is this something that would be a concern? It's an oxymoron, in a way. We want to keep things pristine, yet the majority of Canadians also need that opportunity to experience it.

Mr. Michael Rosen: I hear you.

Can I delegate that one to you, Léo?

Mr. Léo Duguay: Those of you who know me will know that I have a view about issues like that, but I'll beg off on the specifics in this case. I'll simply talk about the value of trees and the need to do more, and the need, in answer to Mr. Hehr's last question, to not just say to people, "Plant trees." We have a lot of people who, with the best intentions in the world, plant the tree, but they don't look after it.

At Tree Canada, we have our trees planted properly and appropriately by professionals and we monitor the success rate. We're running at somewhere around 75% success after five years. If you just plant a tree and go away, it may work or it may not. Our view is simply that we're doing a little, but a lot needs to be done. When a lot needs to be in Canada, those of you who live in municipalities will know they lack expertise and they lack currency, and when something big needs to be done, there's the big government, and that's it. It's the big government that should do it.

Mrs. Cathay Wagantall: In that regard I agree, because that education side of it is important. I can remember that in 1967 this country was celebrating its birthday, and I got a tree. It was planted in the front yard. I no longer live there, but that tree is alive to this day. There was education in our schools and our smaller communities where trees were provided, and the explanations were made. Those trees are filling our school grounds in the community I live in now.

Mr. Léo Duguay: It's not a bad idea for national tree day.

• (1155)

Mrs. Cathay Wagantall: Yes, exactly. That's where I was going.

Mr. Léo Duguay: I'm sorry.

Mrs. Cathay Wagantall: No, not at all. We're on the same page.

Thank you.

The Chair: Mr. Falk, you have a minute and a bit.

Mr. Ted Falk (Provencher, CPC): Do we have an abundant supply of seedlings or saplings—whatever you want to call them—available for reforestation?

Mr. Michael Rosen: Absolutely, yes.

Mr. Ted Falk: That's not an issue.

Mr. Michael Rosen: That's not an issue, no.

Sometimes on the urban front, though, there is an issue related to the genetics of some of the stock. Some of it comes from the United States, so there is a concern there, more on the urban side than the rural side, but we have good seedling production in Canada, yes.

Mr. Ted Falk: I think you also indicated that the mountain pine beetle is also a threat to your urban forest preserves and that something needs to be done. In the last 20 years, the government has spent almost \$400 million in trying to curb the infestation of the mountain pine beetle and, according to previous testimony, it has been relatively ineffective. What do you think we can do to prevent the mountain pine beetle from invading our urban forests?

Mr. Michael Rosen: Thankfully, the one large community was Prince George. Its whole urban forest was lodgepole pine, and it all came down in about the year 2000. I remember the logging trucks sitting in the town as they were carting away, literally, the urban forest to the mill.

The key there is to replace them, obviously, with another species. Stopping that infestation is really difficult. I don't know. It's on such a huge scale that it's really difficult. I can't even provide advice as to how to do that, to be honest. I'm sorry.

Mr. Ted Falk: Thanks, Mr. Chair.

The Chair: Thanks.

Mr. Serré, you have about two minutes.

Mr. Marc Serré: You mentioned two points on education. We heard earlier that Canada's a trading nation, and we heard earlier about Pearson. There were a lot of issues with the airport, with bugs coming in.

Do you have any experience or recommendations on that front with what to facilitate for Pearson?

Mr. Michael Rosen: That's an area for the CFIA, which of course takes care of that. We have standards for how wood enters this country and how it has to be treated, how it has to be oven-dried and the bark cannot be on it. To get somebody to inspect every single pallet that comes into this country is incredibly difficult. One thing that we can do is to increase our inspections and that sort of thing, for sure.

Another point is that people transporting wood products around the country is a real way to vector insect infestations from place to place. The emerald ash borer is in Winnipeg now, and it's in Edmundston, New Brunswick, and there's nothing in between. In other words, it's being transported by people. People have a love for their firewood that you would not believe. They sell their house and they move to another house, and they're taking cords of firewood with them around the country. It's a terrible idea.

That's part of what Léo was mentioning with regard to education. We need to educate people a lot about the value.... I know it sounds simple, but not moving firewood around would have helped a lot of people in Winnipeg and Edmundston, New Brunswick.

Mr. Marc Serré: Wow.

Thank you.

The Chair: Unfortunately, that's all the time we have.

Gentlemen, thank you all very much for joining us this morning, and for your valuable contribution to our study.

Let's suspend for two minutes while we get the next video conference set up, and people can grab some lunch.

- _____ (Pause) _____
-
- (1205)

The Chair: Good afternoon, everybody.

We're going to get going with our second round of witnesses.

From the City of Toronto by video conference, we have Beth McEwen, Manager, Forest and Natural Area Management, and Jozef Ric, Supervisor, Forest Health Care. Here, we have from the Department of Public Safety and Emergency Preparedness, Mr. Patrick Tanguy and Calvin Christiansen.

Thank you all for joining us this morning.

Just so you know, you're the last set of witnesses for this study, so you will have to fill all the gaping holes that remain. There's no pressure.

The process is that each group will be given up to 10 minutes to make their presentation, and then we open the floor to questions.

We will start with the City of Toronto.

Ms. Beth McEwen (Manager Forest and Natural Area Management, Urban Forestry, City of Toronto): Thank you.

My name is Beth McEwen, and I'm here with Jozef Ric.

I will start the presentation.

The City of Toronto encompasses an area [*Technical difficulty—Editor*].

The Chair: I'm going to ask you to stop for one second. There was an interruption on our end.

Please start over again. We're having some audio difficulties, apparently.

Ms. Beth McEwen: The city of Toronto encompasses an area of 630 square kilometres with a population of 2.8 million. Urban forestry is a branch within the division of parks, forestry and recreation, responsible for providing services of maintenance, planting and protection of the urban forest. These services are delivered to areas including parks and natural open spaces as well as streetscapes.

Urban forestry's policy and planning section provides support to the division in environmental policy development, asset and work

management administration, council reporting and other services. Approximately 350 staff work in the Toronto urban forestry division.

Forest health care is a service that is provided as part of urban forest maintenance. Forest health care practitioners respond to queries from residents about city tree health concerns, many of which are aesthetic in nature, but some of which are real health issues.

The forest health care group at the city also proactively develops and manages programs for pest management, from pest surveillance to treatment, monitoring and communication. This small team of seven people has developed tools that are required for pest management. They have a history of working with partners such as the Canadian Forest Service, the Canadian Food Inspection Agency, the Ministry of Natural Resources, other municipal groups, university researchers and other agencies. These partnerships have been essential in supporting the management of forest pests in Toronto.

Native insects and diseases play an essential ecological role in Canada's forests. However, native and non-native insects and diseases can become significant pests when infestations are so severe they destroy or damage large areas of forest or infest Canadian forest products that are bound for export. Mountain pine beetle, spruce budworm, European gypsy moth and Dutch elm disease are examples of well-known forest pests that have led to significant economic impacts on Canadian forests.

The City of Toronto currently invests approximately \$2.5 million annually in forest pest—insect and disease—management programs as part of an overall forest management budget of \$68.7 million. Between the years of 2010 and 2018 the City of Toronto invested over \$70 million to manage the emerald ash borer problem.

In addition to the ongoing pest management programs and extension services, we perform surveillance for pests that represent a future threat including the hemlock woolly adelgid, sudden oak death, oak wilt, thousand cankers disease and butternut canker. The population of trees associated with these pests in Toronto is small, an estimated 2.5% of the total tree population in Toronto, but the impact associated with the loss of native tree species diversity and the associated flora and fauna communities is of great concern.

There is a social connection to trees that elicits emotions that go far beyond what industry, biologists and real estate agents might see in the value of a tree. The black oaks in High Park, the red oaks in Toronto's neighbourhoods such as Baby Point, the Beaches and Moore Park, and the hemlocks of Toronto's ravines all have a value that is not easily described in environmental or financial terms.

The rally to save the oak tree on Coral Gable Drive in North York is testament to the emotional connection that some residents develop with trees. Urbanites as well as rural landowners are significant stakeholders of Canada's forests, and it's important that we support forest health programs, particularly surveillance and education in all communities, especially where local taxes are insufficient to provide these services.

The federal government through the Canadian Food Inspection Agency has a vital role in the establishment of eradication protocols. Toronto has worked closely with CFIA through the 14 years of Asian long-horned beetle eradication as well as in the early days of emerald ash borer infestation. Toronto participated actively in surveys, and we have also supported research activities to develop early detection tools and to enhance the knowledge base of host dynamics.

When the Asian long-horned beetle was first introduced to Toronto, very little was known about which host species the beetle would infest and successfully breed in. As a result, many trees were cut unnecessarily because they were considered potential pest hosts. Now after years of collaborative research, we have a much better understanding not only of the host species, but also of the dispersal patterns and the best way to complete early detection surveys, as well as how to manage an effective survey team over a long period of time.

•(1210)

Toronto supported this research by providing labour and equipment to collect samples and providing space for a rearing facility. The partnership was mutually beneficial in supporting the evolution of the pest eradication program, and will result in a more effective, less costly program of eradication if and when a new infestation is discovered in Canada.

A scientist expert with the Canadian forestry service led a team of science and subject matter experts from Natural Resources Canada, CFIA, MNR, the U.S., universities, as well as municipalities and conservation authorities to guide the eradication program. It proved to be very effective model to guide the eradication of Asian long-horned beetle.

While the role of the Canadian Food Inspection Agency in defining eradication protocols is clear, the transition from eradication to pest management is not. In the case of the emerald ash borer, there was a lack of support for management activities on the level of guidance as well as funding. There's a clear need for more effective delivery of training and management plans to address a range of pests, plans that can be applied to all forms of land type, including Crown land, provincial or national park and conservation land, municipally owned land and private land. Currently, the mandate for defining such management falls to the landowner. In some cases, landowners have qualified staff to assist in developing site-specific plans, but in other cases this expertise is lacking. The management is left to service providers, such as arborists and forest service companies hired on contract, or to "do it yourself" property owners.

There is a case to be made that government could provide more guidance for management activities to direct pruning, tree removal or replacement, as well as disposal. As an example, seasonal pruning restrictions would help reduce the spread of oak wilt, yet documents from the government agencies are primarily focused on identification. Ongoing training opportunities should be available and delivered regionally in workshops or via web-based services.

The Canadian forestry service has provided essential support for the development of pest control products, including TreeAzin and *Bacillus thuringiensis*, both of which are used by the City of Toronto [*Technical difficulty—Editor*] and gypsy moth. It's important that the

Canadian forestry service continue to support the development of such products.

Forest pests do not recognize municipal, provincial or international boundaries. Federal government scientists are well positioned to coordinate research for pests that are considered a high risk to Canadian forests. The development of science teams is critical in the early stages of pest management to make recommendations for effective prevention and early eradication programs. These teams can also inform management plans that will take effect if eradication is not successful or within regulated areas that are very large.

The science committee that was formed to manage ALHB was extremely effective in elevating the knowledge through support for targeted research and collaborative management. This model is one that should be repeated in advance of new pest introductions. The federal and provincial government experts could lead a group of subject matter experts to collaborate on developing pest management and guiding required research programs.

The importance of collaboration cannot be overstated. Municipalities are not well positioned to lead such collaborative groups, although we do contribute practical knowledge, provide arboricultural services to facilitate research, and assist in programs such as surveillance or engaging the public in educational initiatives. It's critical that different levels of government work together.

With regard to changing weather, our future weather is projected to change. A Toronto report called "Toronto's Future Weather and Climate Driver Study" identified estimated change from the period 2000 to 2009, 40 years into the future. They identified things like maximum precipitation increase in one day from 66 millimetres to 166 millimetres; maximum daily temperature increases from 33°C to 44°C; number of days with temperatures less than -10°C changing from 25 to zero days; and number of days with temperatures greater than 24°C changing from 10 days to 180 days, meaning that significantly more air conditioning will be required.

•(1215)

While it's recognized that the impact of these changes will be significant to Toronto residents, the impact on forest health is largely unknown. As an example, the population of gypsy moth has been controlled naturally in the past, when extreme cold temperatures in the winter months contributed to winter mortality of egg masses. In future, the temperatures will not be cold enough to cause mortality, and forest health practitioners will rely on biological controls or continued spray programs to control the pest.

It's important to support research into predicting, for example, pest movement, expanded host ranges, and changes in pest and host dynamics. In times when there is political pressure for reduced government regulation, it is important that the federal government retain programs for research. In a time of significant ecological and climate change, we need to develop tools for the management of new pests. It's also important to support the approval of new technologies, such as the use of drones to apply ultra-low volume spray.

I recently read in the Globe and Mail an article that referred to our inability to perceive incremental change as one of humanity's greatest weaknesses. Biologists identify that each generation grows accustomed to a diminished ecosystem. Our concept of biological abundance is constantly being downgraded without anyone noticing. My generation has never seen American chestnut. My kids will probably not remember Canada's ash trees, and they will only remember the oaks and squirrels that once dominated their outdoor universe.

If we don't remember what's being lost, such as camping under the hemlocks in Algonquin Park, will we recognize the importance of protecting the landscape after the hemlocks die, to ensure that the site is able to recover to a future forest? History tells us that most people will not, unless we help them to see the changes over time. It's only through effective collaboration and support for environmental education that we can help Canadians to appreciate the remarkably diverse elements of the natural landscapes that exist in Canada.

• (1220)

The Chair: Ms. McEwen, I'm going to have to ask you to wrap up very quickly.

Ms. Beth McEwen: I've listed a number of recommendations. I hope you have received the outline of the presentation in advance. I can list those recommendations again if you don't have that.

The Chair: No, that won't be necessary. Thank you.

Gentlemen.

[Translation]

Mr. Patrick Tanguy (Assistant Deputy Minister, Emergency Management and Programs, Department of Public Safety and Emergency Preparedness): Thank you very much. I'm very pleased to be here.

[English]

When it comes to emergency management, the federal government is responsible at the national level and on lands and properties under federal responsibility. Provincial and territorial governments exercise responsibility for emergency management within their respective jurisdictions, except where legislation allows for direct federal interventions or for shared responsibility. You can think about rail incidents, for instance.

[Translation]

The Department of Public Safety and Emergency Preparedness is responsible for providing leadership relating to emergency management in Canada and ensuring a coordinated response to events affecting the national interest, including natural and human-induced disasters, as well as terrorism. Through the Government Operations

Centre and our regional offices, we work closely with other federal departments and agencies, as well as provincial and territorial, emergency management organizations and other key partners, to ensure that impacts to people, property and infrastructure are minimized as much as possible.

[English]

The government operations centre is an interdepartmental organization that supports the minister in his leadership and coordination role in emergency measures. The GOC supports the coordination of federal responses to events affecting the national interest, including major forest fires. During a major forest fire, the GOC coordinates responses to the disaster in close collaboration with NGOs and other federal departments.

During the immediate response phase of an emergency event like a major forest fire, communities leverage existing service delivery capabilities within first nations, municipalities, provinces, territories and third party emergency management service providers such as the Canadian Red Cross.

Each year the government operations centre, in consultation with the provinces and territories, conducts a preliminary risk assessment of general trends expected for the upcoming fire season. This assessment is based on potential fire risks that are identified through Natural Resources Canada's modelling capabilities.

[Translation]

The Government Operations Centre engages key federal and provincial stakeholders in preparation for the upcoming season and prepares an annual Wildland Urban Interface Fire Season Contingency plan. In addition to the contingency plan, the Government Operations Centre establishes an event team to coordinate specific planning for the season, ensures arrangements are in place for access to earth observation resources, including satellite imagery, prepares for the provision of geomatics and imagery services that may be requested by federal, provincial and territorial partners and readies the government for potential requests for assistance from provinces, territories, and Indigenous Services Canada.

The Government Operations Centre maintains continuous communication throughout the fire season and, in the case of major wildfire events, shares situational awareness through timely and accurate reporting. The Government Operations Centre monitors these events on a 24/7 basis and shares a daily brief with partners to inform them of events of interest.

• (1225)

[English]

During the wildfire season, Natural Resources Canada and the Canadian Interagency Forest Fire Centre coordinate the distribution of firefighting resources across the nation. CIFFC—and you heard about it—will also request international resources when needed. Indigenous Services Canada has a lead role in working with the provinces and territories regarding emergency management to ensure first nations communities receive necessary response and recovery services. During a wildfire event, Public Safety Canada works diligently to coordinate a response to the disaster in close collaboration with a wide range of partners, including the Canadian Red Cross.

Moving to the emergency management strategy, building on Minister Goodale's mandate commitment to work with provinces and territories, indigenous peoples and municipalities to develop a comprehensive action plan that allows Canada to better predict, prepare for and respond to weather-related emergencies and natural disasters, Public Safety Canada is working with partners to build a strategy that ensures all Canadians have access to the tools and resources they need before, during and after a disaster strikes, including wildland fires. After consultations with a wide range of stakeholders, we identified five strategic objectives for the emergency management strategy.

One is to enhance whole-of-society collaborations and governance to strengthen resilience. Another objective is to improve understanding and awareness of disaster risks to enable risk-informed decision-making in all sectors of society. Another is to increase whole-of-society disaster prevention and mitigation activities. Then there's enhancing preparedness activities to allow for better response capacity and coordination and foster the development of new capabilities. Finally, there's the objective to leverage lessons learned and best practices to enhance resilience, including building back better, or like my minister would say, building back better faster, to minimize the impact of future disasters.

[Translation]

Public Safety Canada, along with provinces and territories and in partnership with indigenous communities, will continue the work to advance this national vision for emergency management. In May, the federal, provincial and territorial Ministers Responsible for Emergency Management agreed that officials would accelerate the remaining consultations to ensure it reflects the views of their respective stakeholders so that ministers are in a position to approve and release the strategy in early 2019.

In May 2017, the ministers also agreed to work collaboratively with indigenous representatives and communities to develop an inventory of emergency management capability in indigenous communities across Canada.

[English]

Public Safety Canada, in partnership with the Assembly of First Nations and other national indigenous representatives, are co-developing the inventory of emergency management capabilities. The inventory will enable risk-informed decision-making by improving our understanding of existing emergency management

challenges and resources in indigenous communities. Obviously, we're working very closely with Indigenous Services Canada.

More specifically, FPT ministers and indigenous leaders are committed to developing an inventory of risks facing indigenous communities, and to identifying emergency plans and capacities to address these risks. This approach, based on increased engagement, has been undertaken with the key principles of co-developing solutions—and I'm stressing co-developing solutions with indigenous leadership—that are sustainable, inclusive and culturally sensitive. The indigenous inventory project has brought many partners together to develop a methodology that will allow indigenous communities an opportunity to provide their perspectives on emergency management challenges that impact their communities, as well as community-led best practices that are considered success stories.

The project is in a piloting phase, and we'll be reaching out to select indigenous communities across Canada over the fall. We've been really busy this summer. We've met with about a dozen of them. The outcomes of the pilots will inform the broader pan-Canadian rollout in early 2019.

Despite improvements in federal response coordination, there is still significant modernization required in a broader emergency management system, in order to build resilience and enhance readiness in a climate-impacted future. As with most emergencies, while fires are managed at the local and provincial levels, when an emergency exceeds a province's capacity to respond, it may request federal assistance through the government operations centre, which coordinates the federal response to the events affecting national interests. Public Safety regional offices and the GOC works with the provinces to ensure that their needs are met, and that the safety and security of Canadians are safeguarded.

In 2017-18, first nations communities requested federal assistance, which was provided by the Canadian Armed Forces. In 2017, 25 first nations communities were evacuated, displacing over 1,900 people. In 2018 the same number of communities were evacuated, with greater numbers of evacuees, over 2,200. Federal assistance to the provinces is most visible when the Canadian Armed Forces assist. They have been on the ground, with soldiers helping with sandbagging and mop-up operations.

Other contributions from the federal government include imaging and geomatics services such as the national aerial surveillance program, or the provision of emergency supplies from the national emergency stockpile system. At the end of every wildfire season, the government operations centre leads a lessons-learned exercise with its partners to identify best practices and areas for improvement. The data collected from this process informs future planning processes.

Mr. Chair, I'm going to stop here.

• (1230)

The Chair: Perfect. Thank you very much.

Mr. Hehr, you're going to start us off.

Hon. Kent Hehr: Thank you very much, Mr. Chair.

I listened intently to the excellent presentations. I was struck by a general sense that the federal government is absent the super-structure, shall we say, of pest management in this day and age. Yes, when an emergency hits, sure enough we can go to the Minister of Public Safety and ask for intervention. We have the government operations centre, which organized the efforts in Fort McMurray and in British Columbia this summer.

From your perspective, given the state of play in your jurisdiction, you don't see the federal government playing any overarching command-and-control mechanism, overarching direction, as to where we should be dealing with pests and co-management principles, is that correct?

Mr. Patrick Tanguy: When it comes to that question I will confess that this is outside my level of comfort. To be totally honest, I don't have the expertise to be pointing in that direction. We have colleagues over in Natural Resources Canada and other federal organizations who actually would be better positioned than I to be providing a good answer.

Hon. Kent Hehr: Ms. McEwen, did you hear that question?

Ms. McEwen, during your presentation I heard you discussing that the City of Toronto had many efforts going on, but you put forth that the federal government should be taking more of a leadership role. Is that your assertion? How would you think that should be done?

I don't know if anyone can hear me, Mr. Chair.

The Chair: They just really don't like the question.

Mr. Jim Eglinski: I can hear you.

The Chair: Ms. McEwen, were you able to hear the question that was just put to you?

Ms. Beth McEwen: No, I'm sorry. I wasn't.

The Chair: Okay, let's try it one more time.

Hon. Kent Hehr: I listened very intently to your presentation. You rightfully noted the complexity of many of the challenges faced by Toronto given that pests don't know the end of a civic jurisdiction, provincial jurisdiction, or national or international jurisdictions. You don't see the federal government playing much of a role right now.

Can you enlighten us as to what you think they should be doing?

Ms. Beth McEwen: I'm sorry if my presentation didn't highlight that. The Canadian Food Inspection Agency has a clear role in regulating pest entry and taking on the responsibilities associated with eradication for a pest like Asian long-horned beetle. When it comes to management of the problem, there is not a clear role across the different land types based on ownership. That management falls to the land owner.

I think that the federal government could be helping to form some of the collaborative groups—the science committees, so to speak—for each of the different types of pests that are potentially going to enter and cause such significant damage.

As I said, in Toronto, the emerald ash borer was a \$70-million problem for us to manage. As Canadians, we've lost an incredible part of our forest. Oak wilt is on the border of Canada. We have great

concerns about what kind of impact that is going to have when it comes to Toronto, and Ontario as a whole. We feel there could be a committee struck now to help inform some of the things that we should be doing to stop it from coming into the country or to stop it from spreading. I mentioned things like pruning restrictions. Maybe those should be regulated, or maybe there needs to be more education for the public or for the industry to understand the danger associated with pruning an oak in the summer period when beetles are around and are at risk of infecting other trees.

I feel there could be more effort put into developing the management objectives that will help to reduce the spread, as well as simply the regulatory objectives that we have in place to try to stop the entry into the country.

I also mentioned the importance of Canadian scientists in helping to predict some of the changes and helping to develop tools like the biological pesticides that we currently use. TreeAzin is one that they helped develop. Other things like drones, as I mentioned, would be a lot cheaper than bringing [*Technical difficulty—Editor*] and spray an area.

Jozef, can you say the area in Toronto that we're...?

• (1235)

Mr. Jozef Ric (Supervisor Forest Health Care, Urban Forestry, City of Toronto): For the spray?

Ms. Beth McEwen: For next year's gypsy moth spray.

Mr. Jozef Ric: It's 700 to 800 hectares.

Ms. Beth McEwen: We're looking at an area of about 800 hectares. Having new tools and new technology available to us, which is developed and approved by the federal government, is important.

Hon. Kent Hehr: You also indicated in your presentation that Toronto had done some modelling. Your modelling indicates that, because of climate change, you're going to have hotter temperatures in the future, as well as more precipitation. Have you been able to use your best guesses, or best working assumptions to understand whether you're going to have more or less outbreaks as a result of this increased heat and rain? Can you make some sort of hypothesis on that at this time?

Ms. Beth McEwen: I'll let Jozef speak to that.

Mr. Jozef Ric: We can expect different outbreaks. The existing ones might disappear as the host species disappear, as the emerald ash borer wiped out ash species in Toronto. We might have them back in the future.

The gypsy moth is a good example, which Beth brought up. The minimal temperatures over the winter have kept them in check, but as long as we have these higher temperatures over the winter, gypsy moth outbreaks are going to happen more frequently.

Oak wilt is a good example. It has been south of the border for over 40 years. Now it's approaching the border and we have it critically close.

Other pests will probably thrive in these new climatic conditions.

Ms. Beth McEwen: I will just add to that.

The Chair: Ms. McEwen, you're going to have to do it very quickly, because we're a bit over time here.

Ms. Beth McEwen: Okay.

When trees are under stress, they become less resilient to pests. We can expect more stressed trees and less resilience.

• (1240)

Hon. Kent Hehr: Thank you.

The Chair: Thank you.

Mr. Eglinski.

Mr. Jim Eglinski: Thank you, Mr. Chair, and thank you to all our witnesses today.

I'll start again with Ms. McEwen.

You stated that your program was very successful. On one aspect of it, I know you said you spent \$70 million. However, in listening to your presentation, it sounds as though you spent hundreds of millions of dollars in the Toronto area to combat the various species that came in.

Do you feel that your work was effective in stopping some of them, eradicating some of them, or holding some of them at bay? Do you think your work was successful?

Ms. Beth McEwen: We have been successful with the Asian long-horned beetle, working with the Canadian Food Inspection Agency, the Canadian Forest Service and the other partners. To date, we are very close to eradication, which was the objective.

With emerald ash borer, the money has been spent largely on mopping up, removing the dead trees. We are currently protecting about 9,000 ash trees that remain in our landscape, and there are a few that remain out there still that were not protected.

With respect to other diseases, we are keeping gypsy moth at bay, but we are having to do spraying more frequently. We have concerns that if we have to spray every year, that has a cost and other impacts.

Mr. Jim Eglinski: Thank you.

As you mentioned earlier, we are seeing species coming up from the United States. Do you think it's solely your responsibility, as the City of Toronto, to combat these species, or should it be a coordinated effort between the municipality, the province, and the federal government?

Ms. Beth McEwen: I absolutely think it should be a coordinated effort. We help each other.

Mr. Jim Eglinski: Have you received any financial assistance from the federal government in combatting your species situations in the last decade?

Ms. Beth McEwen: We've been compensated for all the cost associated with eradication of Asian long-horned beetle. We were not compensated for many of the costs, or very minimally, for the emerald ash borer, and nothing for the gypsy moth.

Mr. Jim Eglinski: Okay, thank you.

I'll direct my next question to the Department of Public Safety.

You mentioned that you coordinate and set up emergency management plans. Are you responsible for Parks Canada?

Mr. Patrick Tanguy: No, we're not responsible for Parks Canada.

Mr. Jim Eglinski: Is Parks Canada a separate entity that looks after its own identities and its own land masses?

Mr. Patrick Tanguy: Just quickly, when I say "planning", at the national level we work internally with all the federal partners to really think about what is going to be the next fire season and how we can get prepared and pre-position some assets with different partners.

I am not doing the planning for Parks Canada, but I will interact with them just to make sure that collectively the federal family, whether it's at the regional or national level, works together.

Mr. Jim Eglinski: You said something very interesting. When the provinces reach a state where they can't handle a fire or emergency situation, your agency will step in and give assistance in many ways such as military, scientific, financial, equipment and so on.

We're seeing a situation in western Canada with the mountain pine beetle that came through Jasper National Park from British Columbia. British Columbia has been devastated from one end of the province to the other in all ways—east, west, north, south—and we're now seeing it emerge in the province of Alberta through the park. The park has done very little to mitigate or eradicate the pine beetle situation. They let it kind of flow through the park, and it has now gone through the entrance and is spreading through the western sectors of Alberta.

The Province of Alberta has spent hundreds of millions of dollars—and I think over just the last year it was \$456 million—to eradicate them. Do you believe that the Government of Canada should be assisting? We assisted the Province of British Columbia back in the late 2000s with over \$200 million to assist in trying to stop the pine beetle.

Do you feel it's necessary that, when a province can't handle the situation itself anymore and industry is taxed to a high level, the federal government should come into play beyond the research level?

• (1245)

Mr. Patrick Tanguy: Thank you. That's a great question.

On that front I would say that, when I was referring to the request for assistance, that is in the context of an emergency situation that is life-threatening, like a wildfire situation. You need to quickly put the resources in place to make sure that you're protecting Canadians.

When it comes to forestry pests or the mountain pine beetle, I don't see this as qualifying as the same type of emergency that we see when we're providing assistance. At the same time, although I confess to my ignorance on that front, I know there are other federal players, like the Canadian Forest Service and others, that work closely with provinces.

In my experience, there has never been a request for assistance for the specific situation of dealing with pests, because we're turning our attention to other emergencies that really put Canadians at risk.

Mr. Jim Eglinski: I have a quick question about emergencies. As the pine beetle spreads through our province—it's now in Saskatchewan through the northern sector—the communities along the way are being threatened. We need to look at fire smart practices. We need to clean out certain areas. Is there an availability for communities or provinces to then come to the federal government to ask for assistance to help with those programs and protect the public at large?

Mr. Patrick Tanguy: Yes. To answer that, this is something we're quite aware of at Public Safety, so FireSmart is really supported by.... There have been different pilots in first nations communities and elsewhere. For instance, in the context of the disaster mitigation and adaptation fund, which has been part of the investing in Canada plan, there are ways for communities to consider those measures to be put in place. There are existing programs supporting this.

In the context of our emergency management strategy that I was referring to, we're working with all provinces and territories. Really, there's a lot of support for FireSmart, because we think this is the right approach to take. It really makes a difference.

Mr. Jim Eglinski: I agree with you, sir.

The Chair: Mr. Cannings.

Mr. Richard Cannings: Thank you all for being here today.

I'm going to start with Mr. Tanguy and Mr. Christiansen.

First of all, I thank your department. Over the last few years, unfortunately, my riding has been the recipient of your help in probably three different years. In 2015, we had major fires in the south Okanagan and Rock Creek areas that unfortunately burned a lot of homes. We had a break in 2016, and then in 2017, we had floods in the Okanagan and fires in all sorts of places. This year, it's the same. We had a big flood in Grand Forks, which I know your department helped with, and the army came in to help there and that's still going on. There were a lot of fires as well. We are seeing this need for assistance from emergency management groups, and I thank you for that.

The modern version of this started in B.C. in 2003 with the Kelowna fire and fires in Louis Creek and Barriere that destroyed more than 300 houses. We had the Filmon firestorm report in 2003. This picks up on the FireSmart program that the province was supposed to take on. It provided money for municipalities and first nations but it was really just a drop in the bucket. I think the report identified some 13,000 square kilometres that needed to be treated and thinned to protect communities, and less than 7% has been done over the last 13 years or so.

Is this a place where the federal government can really play a role? You mentioned the disaster adaptation and mitigation fund, which I'm dealing with now with Grand Forks, because we need big money. With that fund, as I recall, you need to have a project of over \$20 million and.... Is that something that municipalities can tap into for prevention of these emergencies? I thought it was a response type of fund. Just answer that question and I might expand on it later.

•(1250)

Mr. Patrick Tanguy: Very quickly, Infrastructure Canada is leading on that project—the disaster mitigation and adaptation fund—but overall, I would say the government is trying. Of course, we

need to be in a position where we can support response and recovery, but also, we need to shift. We need to be focusing on adaptation and mitigation. If you look at floods, for instance, we have a program in place that is really providing funding so you can put mitigation projects in place—not necessarily for structural projects—that will help to actually limit the costs of recovery.

The other thing I would point out is in the context of our emergency management strategy. I was alluding to this earlier. Federal and provincial ministers sat down together to say we need to have a public-facing emergency management strategy. Then once this is done—we're expecting in January, because we've been working really hard—you need to put some programs in place. In my view—on your questions about FireSmart—this is something that all levels of government, including indigenous communities, need to focus on collectively: how we're moving forward to actually support FireSmart and make sure that we are putting this in place beyond the pilot projects. If you go on the website of FireSmart, you can see that there are some communities that are actually FireSmart-approved across Canada, but you can do a lot more.

Mr. Richard Cannings: I see this as a win-win-win situation, because the forest industry is really hurting in British Columbia. They had a good time while the beetle epidemic was there and they harvested a lot more than they normally do. Now that's all gone and we've had the fires. We have companies in my riding whose mills are well equipped to deal with smaller logs, so they would love to get logs from thinning operations. It would put all these people to work in communities that are hurting, especially around British Columbia.

It would seem that the province—at least until now because I think they're starting to step up this program again—is a place the federal government could get involved and not only provide jobs and help for these forestry communities, but also protect them in the future.

Mr. Patrick Tanguy: I told your group what you said. That's why I'm pointing to the emergency management strategy we've been working on. I know this is just a strategy, and people will react by saying this is just words, but when all provinces and territories come together to say they need to have their five pillars, and things like FireSmart or training. When it comes to emergency management training, there are ways we could do a better job as well. There is momentum in that direction.

Mr. Richard Cannings: When you said building back, better, faster, this is what sprang to my mind. We need billions of dollars invested in this. It's not a small project. I think the federal government could get involved.

The Chair: You have 30 seconds.

Mr. Richard Cannings: I'll just cede the floor. I had more, but....

The Chair: Okay. Thanks.

Mr. Tan.

Mr. Geng Tan (Don Valley North, Lib.): Thank you, Chair.

To the City of Toronto, a former witness told the committee that in some cases it can cost roughly \$400 to try to save a single tree in Toronto from an invasive bug. In your opinion, what is the highest dollar amount that can be reached in an effort to save one urban tree? Just take a guess.

Ms. Beth McEwen: That's a hard question to answer. Trees are all different. Size and location may make one tree much more valuable. The Coral Gable tree is an example of where there has been a tremendous effort to save a historic tree. I tend to want to save the forest as opposed to individual trees.

• (1255)

Mr. Geng Tan: In urban forestry, I guess you can't use a method like a controlled burn to manage the pests. Are there any other means you can use to control pests once the damage has been done?

Ms. Beth McEwen: In the city of Toronto we don't use prescribed burns to control pests. We use it to help regenerate the oaks in High Park. Where you have all the urban values around trees, generally the pests.... When a tree dies, we need to do removal operations, and it has to be strategic to not damage any of the infrastructure around. We do use sprays and injections to control pests before trees die.

Mr. Jozef Ric: We use integrated pest management in general, which is a set of tools from doing nothing, to creating awareness, to managing the pests with pesticide or eradication efforts by removing infested trees. There's quite a variety

Mr. Geng Tan: But before the tree dies, you will do whatever you can to save the tree.

Mr. Jozef Ric: Generally, yes. That's right—not just individual trees, but in the scope of the environment.

Mr. Geng Tan: In your opinion, to what extent does the City of Toronto engage in knowledge sharing with other major cities in Canada, when it comes to invasive species management? Are there any lessons learned that you can share on a regular basis with other cities?

Mr. Jozef Ric: We do co-operate with other cities. The City of Toronto is part of the greater Toronto area where we have similar problems. Just recently, we co-operated on gypsy moth treatment programs. The emerald ash borer is a threat to the entire area. It's passing into Nova Scotia now. The Asian long-horned beetle is in Mississauga and Toronto, and we have co-operated with them quite intensively.

Mr. Geng Tan: Mr. Tanguy and the GOC, we know that sometimes we have used controlled burns to destroy or control pests in forestry. What if the controlled burn gets out of control because of flawed or bad planning, or even if there's a sudden change in wind direction or whatever? To what extent do you work with stakeholders in advance to prevent this kind of situation? What

contingency plans have to be in place before they are allowed to initiate this kind of fire?

Mr. Patrick Tanguy: Thank you for the questions.

I would like to highlight that we at Public Safety are really involved in how we're responding to events. When it comes to that planning exercise, I remember having had many discussions with colleagues from the Canadian Forest Service, for instance. Really they're going to be more aware about what is to be done in that situation. At Public Safety Canada we're more in the mode of responding to it.

When it comes to the planning, it's the planning to actually have the assets in place in case we're responding to that. I don't think I have a good answer for you, but I can undertake to actually get back to the committee on this.

Mr. Geng Tan: In general, how fast are you able to respond to this?

The Chair: Mr. Tan, we're out of time.

I know Mr. Serré has something he wants to say.

I have a very quick question for the City of Toronto. I live in Etobicoke. Can I anticipate the gypsy moth disappearing anytime soon? It's a yes or no question.

• (1300)

Ms. Beth McEwen: No.

Mr. Jozef Ric: No, it's not going to disappear.

The Chair: That's what I thought. Thank you.

Mr. Jozef Ric: Eradication is not possible, unfortunately. The control program is a suppression program. We try to bring it down to a tolerable level, tolerable to residents and tolerable to the environment.

The Chair: Thank you to both of our groups of witnesses. We appreciate your taking the time and your contribution to our study.

Mr. Serré, you had one piece of business before we adjourn.

Mr. Marc Serré: Next week we have the President of the Netherlands here on Thursday.

[*Translation*]

I'm going to read a motion to cancel the committee meeting: "That, notwithstanding any usual practice, the Committee not meet on Thursday, October 25, 2018."

[*English*]

There would be no meeting. I'm asking if all members are in agreement.

The Chair: It's unanimous. Thank you.

The meeting is adjourned.

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