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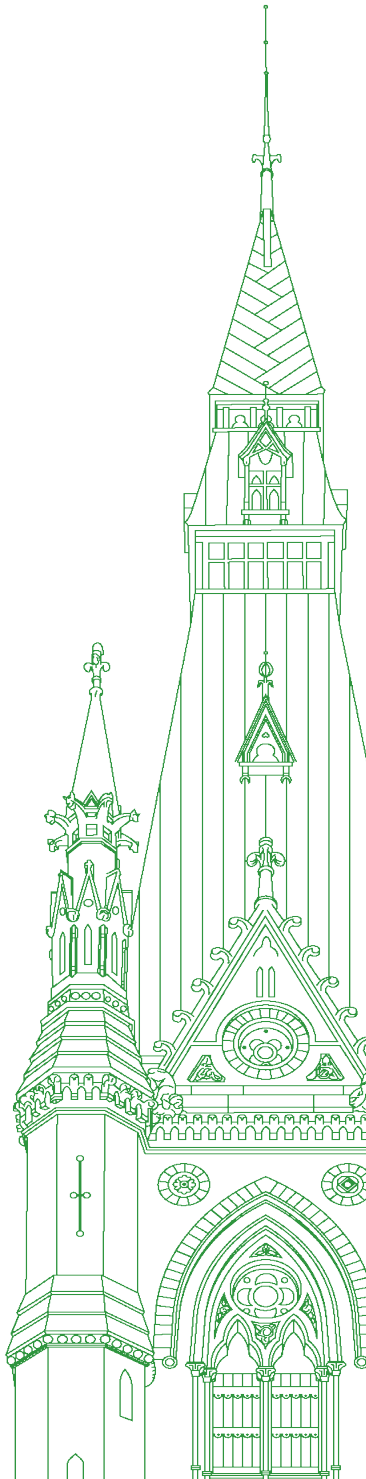

Chair: The Honourable John McKay

Standing Committee on National Defence

Tuesday, November 26, 2024

● (1550)

[*English*]

The Chair (Hon. John McKay (Scarborough—Guildwood, Lib.)): I am calling the meeting to order.

On behalf of the committee, I want to welcome our guests.

I appreciate your co-operation in trying to merge two hours into one panel, which I think is actually a more useful way to go about things. I'm still going to go in the order of the expected appearances, and I'm going to ask each of you for a five-minute opening statement.

Our first witness is Greg Carreau, director general, safe environments directorate. Our second witness will be Seth Cain, director, contaminated sites division, at Environment and Climate Change Canada. Our third witness will be, from the Treasury Board Secretariat, Sarah Evans, executive director, investment management directorate.

This is all pursuant to Standing Order 108(2), when we adopted a motion that the committee commence its study on the Department of National Defence and Canadian Armed Forces contaminated sites.

This is our first meeting. I look forward to what you have to say.

I'll start with Mr. Carreau for five minutes, please.

[*Translation*]

Mr. Greg Carreau (Director General, Safe Environments Directorate, Department of Health): Thank you, Mr. Chair.

Mr. Chair, honourable members of the committee, thank you for the invitation to discuss the expertise that Health Canada provides to assist the Department of National Defence in addressing contaminated sites. It is my pleasure to join you today on the unceded traditional territory of the Algonquin Anishinabe nation.

I'm speaking on behalf of Health Canada in my role as director general of the safe environments directorate in the healthy environments and consumer safety branch.

[*English*]

The 20th century saw a large increase of chemical substances introduced into the chemicals market that yielded tremendous benefits, including firefighting foams. However, many chemicals also introduced risks to human health and the environment. Health Canada works to protect people in Canada from chemical risks in a number of ways.

[*Translation*]

Of most immediate relevance to this committee is the federal contaminated sites action plan, through which Health Canada assists a number of federal organizations responsible for contaminated sites, including the Department of National Defence. When requested, Health Canada scientists provide technical advice on site-specific health risk assessments and have developed guidance for assessing and addressing health risks of chemicals associated with historical military activities such as per- and polyfluoroalkyl substances, or PFAS, trichloroethylene, dioxins and energetic compounds.

[*English*]

Health Canada has developed 19 technical guidance documents on methods to support the assessment of risks to health from chemicals in soil, air, water, country foods and others at contaminated sites. Furthermore, Health Canada supplements guidance with training for federal organizations responsible for contaminated sites, including the Department of National Defence.

Another way in which Health Canada works to protect people in Canada from chemical risks is through administering parts of the Canadian Environmental Protection Act, or CEPA, in collaboration with Environment and Climate Change Canada.

Recent amendments to CEPA have strengthened Canada's management of chemicals to protect human health and the environment. For the first time in federal legislation, it is recognized that every individual in Canada has a right to a healthy environment. Changes to CEPA also introduced a transparent priority-setting plan for addressing chemicals and a watch-list of substances of potential concern, and reinforced the need to protect our most susceptible populations.

[*Translation*]

Within the chemicals management plan, Health Canada scientists identify how people in Canada are exposed to chemicals, the risks they pose and the actions that can be taken to address risks to human health. A major priority for the Government of Canada is the assessment and management of risks related to PFAS, commonly referred to as "forever chemicals". For over 15 years, Health Canada has been taking action on this group of substances, which has many important uses, including in fire-fighting foams.

[*English*]

A range of negative health effects have been reported for a small number of well-studied PFAS, including but not limited to the liver, kidney, thyroid and nervous system. There is also an increasing amount of new science that shows other PFAS can lead to similar negative health effects. With an objective of replacing PFAS with safer alternatives, Canada is among the leaders in the global community assessing and managing over 4,700 PFAS as a single class of substances.

In summary, Health Canada works to support the protection of people in Canada from risks associated with chemicals. An important aspect of this work is assisting the Department of National Defence in addressing contaminated sites associated with historical military activities.

Thank you.

The Chair: Thank you, Mr. Carreau.

Mr. Cain, you have five minutes.

Mr. Seth Cain (Director, Contaminated Sites Division, Department of the Environment): Good afternoon. My name is Seth Cain, and I am the director of the contaminated sites division within the environmental protection operations directorate of Environment and Climate Change Canada. I oversee the secretariat of the federal contaminated sites action plan, which we refer to as FCSAP. This program helps the federal government address its contaminated sites. I am here today to respond to your questions about the FCSAP approach.

FCSAP was established in 2005 as a 15-year program. In 2019, it was renewed for another 15 years, with budget 2019 providing funding for the first five years of this renewed period. It has been funded again through budget 2024. The objective of FCSAP is to reduce the environmental and human health risks from federal contaminated sites, as well as associated liabilities for the Government of Canada.

FCSAP provides funding, guidance and expert support for the cleanup of federal contaminated sites across the country. The program funds federal organizations like the Department of National Defence to undertake assessment, remediation and risk management activities at their federal contaminated sites. The federal organization that manages a contaminated site is referred to as a "custodian".

Environment and Climate Change Canada has three roles in this program: First, through the secretariat, we provide administrative policy and reporting leadership. Second, as an expert support department, like Health Canada, we provide guidance, training and scientific advice regarding ecological risks, and third, as a custodian, Environment Canada is responsible for the management of its own contaminated sites.

I thank you and look forward to responding to your questions.

● (1555)

The Chair: Thank you.

Finally, Ms. Evans, you have five minutes.

Ms. Sarah Evans (Executive Director, Investment Management Directorate, Office of the Comptroller General, Treasury Board Secretariat): Thank you, Mr. Chair.

I would like to thank the committee for inviting us to support its study of Department of National Defence and Canadian Armed Forces contaminated sites. My name is Sarah Evans, and I am the executive director of investment management within the office of the comptroller general at the Treasury Board of Canada Secretariat.

I would like to take a moment to outline the role the Treasury Board of Canada Secretariat plays in supporting the management of federal contaminated sites.

First, the Treasury Board sets the administrative policy framework for the management of federal real property through its directive on the management of real property. The directive outlines the responsibilities of departments that administer real property, which we call "custodian organizations", so that real property is planned, acquired, used and disposed of in a manner that supports the delivery of programs and services to Canadians while ensuring best value for the Crown.

As part of the directive, the responsibilities of each custodian organization that manages contaminated sites are set out. This includes following standards and guidelines endorsed by the Canadian Council of Ministers of the Environment.

[*Translation*]

Second, in support of transparency, custodian organizations that administer contaminated sites must also report annually on them in the federal contaminated sites inventory.

[*English*]

The Chair: Excuse me, Ms. Evans.

Did we just lose translation?

Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC): Yes.

A voice: It's just a little slow.

The Chair: Can you back up a couple of sentences and continue, please?

[*Translation*]

Ms. Sarah Evans: Second, in support of transparency, custodian organizations that administer contaminated sites must also report annually on them in the federal contaminated sites inventory. Treasury Board of Canada Secretariat is responsible for the administration of this publicly available information system. The reporting requirements for the inventory are set out in the directives and are established for the federal contaminated sites action plan governance. Custodian organizations submit information on their contaminated sites and certify to the completeness and accuracy of that data.

The federal contaminated sites inventory includes data on all known and suspected contaminated sites under the custodianship of federal departments, agencies and consolidated Crown corporations. It displays a standard set of baseline and annually updated information for federal contaminated sites and provides points of contact so that Canadians can request additional information regarding specific contaminated sites.

As science continues to evolve related to contaminants of emerging concern, the federal contaminated sites action plan secretariat, led by my colleagues at Environment and Climate Change Canada, works with relevant regulators and offers expert support with Health Canada, for example, to establish reporting requirements. As of fiscal year 2024–2025, the federal contaminated sites inventory will include information on per- and polyfluoroalkyl substances, or PFAS, contamination for active contaminated sites.

[*English*]

Finally, the Treasury Board of Canada Secretariat plays a supporting role in the administration of the federal contaminated sites action plan. As my colleague outlined in his opening remarks, the federal contaminated sites action plan is the main government program to address federal contaminated sites. We support Environment and Climate Change Canada in its secretariat role to manage horizontal elements of the program. This is primarily through the management of the federal contaminated sites inventory as well as supporting the governance committees for the initiative.

With that Mr. Chair, I am pleased to answer any questions from committee members about Treasury Board and the Treasury Board of Canada Secretariat's roles with respect to the management of contaminated sites.

The Chair: Thank you.

Mr. Tolmie, welcome to the committee. You have six minutes.

● (1600)

Mr. Fraser Tolmie (Moose Jaw—Lake Centre—Lanigan, CPC): Thank you, Chair, for having me here.

Thank you to our witnesses for joining us today. I have a couple of questions. Obviously, the relevance for me is very important. Having two bases in my riding, some of the things that you have shared are very important.

Mr. Cain, I'm going to ask you first because you mentioned a FCSAP.

Just for the record, is there a reporting requirement or a hierarchy and a chain of command for people or departments to record contaminated sites?

Mr. Seth Cain: Thank you for the question.

There are a set of guidelines, first, about reporting publicly through the federal contaminated sites inventory, which Ms. Evans mentioned in her opening remarks and can elaborate on.

Through that inventory, we ensure and custodians are responsible for providing basic information about contaminated sites. That inventory also provides points of contact for members of the public to contact a specific site owner, such as DND or any other federal department or agency, to request additional information on a given site.

Mr. Fraser Tolmie: If you are not aware of having a contaminated site on your base or in your area, how would you know?

How would you find out that there is a contaminated site? Could this just be missed because we don't have people who are properly trained in identifying contaminated sites?

Mr. Seth Cain: Thank you for the question, again.

The federal contaminated sites inventory is public, so it's available through that channel. I think it's also important to note that a given custodian of a contaminated site has the responsibility to be aware of and communicate appropriately if there are risks to human health, be that to the broader public or to employees.

Mr. Fraser Tolmie: I'll ask the same question but in a slightly different way.

If I were a base commander, a wing commander or a unit commander, and I didn't know that there was contamination in the area I was working in, that would go unnoticed unless someone had that expertise and recognized they're dealing with or working with contamination.

If you don't know, how would you be able to report that? If you don't know what you're working with, how do you find out? I mean, the reporting system is based on knowing and identifying what contaminated sites are.

That question can go to anybody.

Mr. Seth Cain: I'll offer one additional piece of insight on that. The federal contaminated sites action plan, which has been in place since 2005, has led to, especially in its early years, a comprehensive effort on the part of federal departments, agencies and real property landowners to identify potentially contaminated sites. We refer to them as “suspected.”

The process is to work through those potential sites to understand whether there is, in fact, contamination and whether it exceeds guidelines, and then work through planning and cleaning up those sites.

There's been a pretty comprehensive effort going back many years to identify potential sites. It's not to say there aren't any uncertainties left, but it has been pretty comprehensive. As an example, the program, when it started, was estimating in the range of 6,000 contaminated sites. It's now over 24,000, with the large majority of those—over 18,000—now closed. In many cases, they were closed once it was determined that the site was not, in fact, contaminated, so it was purely suspected.

● (1605)

Mr. Fraser Tolmie: Thank you. I appreciate that.

I want to have on the record.... My concern is that we're working with numerous departments, and they're siloed. Where's the chain of command, where's the hierarchy and what is the obligation if you notice a contaminated site?

How much time do I have?

The Chair: You have 30 seconds.

Mr. Fraser Tolmie: There's never enough time.

I just want to say thank you. I am concerned that members of the military might not understand what they are dealing with, and I want to make sure there is a chain of command and there is a hierarchy for answering to someone.

Thank you very much for your time.

The Chair: Thank you, Mr. Tolmie.

For the chair's edification, what's your riding, and what are the bases that are in the riding?

Mr. Fraser Tolmie: It's Moose Jaw—Lake Centre—Lanigan. It is 15 Wing, where the Snowbirds are based—we lend them out to the rest of Canada—and Dundurn, obviously. It's a site where we have a lot of old weapons that we get rid of.

The Chair: Thank you.

Ms. Lambropoulos, go ahead for six minutes, please.

Ms. Emmanuella Lambropoulos (Saint-Laurent, Lib.): Thanks, Chair.

Thank you to all of our witnesses for being here with us to answer some questions on this important topic today.

My first question is for Environment and Climate Change.

I'm wondering if you can let us know what the process is when the department receives feedback that there is a contaminated site. What happens at that point?

Mr. Seth Cain: We have set out, as a community, a 10-step process that federal real property holders follow. We refer to it as the decision-making framework.

The 10 steps start with identifying a potential or suspected contaminated site. It proceeds through different degrees and levels of evaluation, including sampling and looking at and comparing site results against guidelines, leading to confirmation that it is, in fact, contaminated, at which point a plan will be developed to remediate or put in place risk management measures for a given site. That will be implemented. There will be confirmatory sampling or long-term monitoring and, then, closure of a site.

Those are the broad strokes of how a site is managed from start to finish.

Ms. Emmanuella Lambropoulos: Thank you.

We've heard also that it could spill over into communities sometimes. I'm wondering what the process would be at that point, if a community were to let you know that there was contaminated water or whatever it might be.

Mr. Seth Cain: That does occur and it is certainly part of the responsibilities of those individual site owners—DND or any other—to understand whether the contamination may have travelled offsite, to inform landowners, stakeholders, the public or indigenous peoples, as required, and then to conduct the testing that's needed to confirm the risk and contaminants that are present and assess those like they would on federal lands. Those are the basics.

It's always important to work with landowners and to consider not just federal guidelines but also possibly provincial guidelines in cases where the contamination has gone off of federal lands.

Ms. Emmanuella Lambropoulos: Thank you.

Mr. Carreau, you mentioned that there are several things that Health Canada does in order to protect Canadians from these contaminants, these chemicals. I'm wondering if you have any thoughts on what can be added to these measures to better protect Canadians.

Mr. Greg Carreau: Indeed, Health Canada plays an important role in supporting custodians in remediating and identifying contaminated sites by way of leveraging its science-based programs, whether they be for air pollution, drinking water, chemicals or foods.

Guidelines, advice and technical input are provided to custodians so that they are well aware of the levels of risk that may be present from exposures at contaminated sites and what levels would be considered levels that would reduce that risk over time.

Leveraging that very robust science-based program at Health Canada, I think we're fully confident that the advice and guidance we provide to custodians does reflect consistent and tangible guidance that is reflective of current science on the health effects of these pollutants.

● (1610)

Ms. Emmanuella Lambropoulos: You also lightly touched on the negative health effects. You said that it affects liver, kidney and the nervous system.

Can you go a little bit more into the worst-case scenario of what the effects would be on health?

Mr. Greg Carreau: The range of pollutants that may be present at contaminated sites are highly variable, obviously, depending on what chemicals, what pollutants, what exposure scenarios may be present and whether or not they may have disproportionately impacted people on the sites, like toddlers at playgrounds or pregnant people in the environment.

It's difficult to answer that in a very succinct answer, but I would say that many of these chemicals can lead to increased risks of cancer over time. That's why it's important that the health-based input that's provided underpins the actions that custodians are taking on these contaminated sites.

Ms. Emmanuella Lambropoulos: Thank you.

As well, I know that there are different types of PFAS. Which ones are the ones that are most often found contaminating these sites, and which ones are used on these bases?

Mr. Greg Carreau: I think, as I mentioned in my opening remarks, that class of per- and polyfluoroalkyl substances, or PFAS, is upwards of a 5,000, maybe 10,000, group of chemicals internationally. In the context of contaminated sites, they're predominantly from legacy use of aqueous film-forming foams that are present either for the use of containing fires or for training purposes.

The Government of Canada has been looking at this class of chemicals for over 15 years. There are very well-characterized chemicals, including PFOS, long-chain perfluorooctane sulfonate, and also a range of other very complex but well-studied chemicals.

Health Canada has recently adopted a drinking water quality objective, which cites the most common PFAS that are being monitored at these contaminated sites, and then provides guidance on analytical methods to ensure that sampling is done to detect these chemicals and what treatment can be done, at both the domestic residential scale—

The Chair: You have the answer there, Ms. Lambropoulos.

[*Translation*]

Ms. Normandin, you have the floor for six minutes.

Ms. Christine Normandin (Saint-Jean, BQ): Thank you very much, Mr. Chair.

Thanks to all the witnesses for being here.

My questions will be similar to those of my colleague Mr. Tolmie. The first one is more for Mr. Cain, but perhaps for Mr. Carreau as well.

Before determining whether a site is contaminated, first you have to identify the contaminant. In many cases, when people use a product, they don't yet know that it's a contaminant.

I'd like to know if you have access to a list of all the chemicals that may have been used in the course of a year at a given site, or whether there's an obligation to give you access to such a list. By that I mean a registry that can subsequently be used to confirm whether a site is contaminated, in the same way as you can issue recalls of certain products. You know to whom the product was sold and can issue a recall notice.

Does that kind of system exist for the purpose of managing contaminated sites?

[*English*]

Mr. Seth Cain: Thank you for the question.

I am not aware of a registry of that type. The community has been working together for many years and has identified a list of chemicals that are part of the federal contaminated sites inventory.

It is an obligation on the part of the custodians, the real property owners, to be aware of those hazards, those chemicals, and to consider if they may have been used at their sites. In the case of a potential or suspected contaminated site, this leads to making that information public on the inventory.

I think that's probably the most direct answer I can provide to that question.

● (1615)

[*Translation*]

Ms. Christine Normandin: Since sites may become contaminated, would it be helpful to have them maintain readily accessible registries of all products used on those sites, even those that aren't considered contaminants? In that way, if those products were ever identified as contaminants at a later date, it would be easier to determine which sites are contaminated. Is that a good idea?

[*English*]

Mr. Greg Carreau: Thank you for the question.

I can add from a health perspective, as you rightly pointed out, that science evolves over time and new health and environmental risks can be identified for chemicals. Oftentimes, Health Canada will develop new standards based on that new science, and that is made available to custodians as a basis to then identify new risks that may be present at their sites. I think that linkage between emerging science, emerging risks, and custodians to identify what risks may be in those areas, as well, will help identify.

[*Translation*]

Ms. Christine Normandin: Mr. Carreau, you're responsible for establishing targets and toxicity levels. However, as was mentioned, products often spread beyond a site to sites that aren't on federal property.

I'd like to know what happens in cases, for example, where federal standards differ from provincial or local standards. For example, the Institut national de santé publique du Québec could have a different standard from the federal one, as a result of which different standards would, generally speaking, apply to a single site.

What's the procedure in that situation?

Mr. Greg Carreau: Thank you for that question.

[*English*]

Indeed, in the space of environmental health and some of these health contaminants, there is jurisdiction within the provinces and territories that applies to certain contaminated sites. In those instances, there's very close collaboration between the federal government and the province or territory on the advice and guidance that are provided to the custodian.

Ultimately, if the contamination is in a provincial space under provincial jurisdiction, it would be the provincial authority that guides and provides advice to custodians. The federal government would be a very close collaborator in providing support as necessary.

[*Translation*]

Ms. Christine Normandin: I'd like you to tell us about the precautionary principle. Do you apply the precautionary principle when you don't yet know the toxicity level of an existing product? In other words, when the toxicity level of a product hasn't been reached, do you nevertheless take specific steps to prevent the public from coming into contact with a contaminant?

Mr. Greg Carreau: Thank you once again for your question.

[*English*]

The precautionary principle features prominently in all of Health Canada's activities to identify the level of risk related to a certain product or chemical. It is entrenched in the Canadian Environmental Protection Act. As I mentioned, that is the basis for many of Health Canada's legislative programs.

We've also introduced, through our risk assessments, uncertainty factors that allow for uncertainty and precaution when Health Canada comes up with a toxicity value. A good example of precaution is the PFAS example I just spoke to. The Government of Canada had been looking at a chemical-by-chemical approach but recognized the large chemical.... The drinking water objective brings together that broad class, using precaution as a basis, to protect Canadians from exposure to PFAS in drinking water.

[*Translation*]

Ms. Christine Normandin: Thank you.

The Chair: Thank you, Ms. Normandin.

[*English*]

Ms. Mathyssen, you have six minutes, please.

Ms. Lindsay Mathyssen (London—Fanshawe, NDP): Thank you, Chair.

Thank you to the witnesses today. This is an important study.

First off, there was a lot of conversation about the PFAS, but could you talk about the health risks of TCE and hydrocarbons? This is for Health Canada maybe.

Mr. Greg Carreau: Thank you very much for the question. I appreciate it.

Indeed, TCE is a well-studied chemical solvent that can cause cancer. As you may know, it's been used for many decades, primarily for automotive metal industries, degreasing and cleaning metal parts. Through the Canadian Environment Protection Act, there were regulations put in place to reduce exposure to Canadians and the environment. It is noted that people living in close proximity to contaminated sites may be exposed to TCE in drinking water as well as through air, water and food.

● (1620)

Ms. Lindsay Mathyssen: However, that's part of this fix up as well.

Mr. Greg Carreau: That's correct. Health Canada does have guidance, both in indoor air quality standards and drinking water standards, that has characterized the health risks from exposure to TCE through those various exposure pathways. That guidance is used as a basis for custodians to manage established contaminated sites.

Ms. Lindsay Mathyssen: As we explore more and more, there are conversations about needing to expand housing and the investigation of maybe using federal lands, like DND lands, for the expansion of that by selling off that property, using it for housing or even just building housing around those areas, which exist in my riding per se.

In her conversation, I think Ms. Lambropoulos asked about this. If the community found out about contamination, because there was water sampling or what have you, then they would approach Health Canada. It is for the holder of the land, the guardian of that land—DND for this example—to actively and proactively inform the community. Is that correct?

It's not just one way; it has to happen both ways.

Mr. Greg Carreau: That's correct.

Ms. Lindsay Mathyssen: You had talked about those lands that weren't federal, but there certainly is an impact. Water runs beneath. There are impacts that expand past those boundaries. Water or soil contamination doesn't just exist until the boundary.

Who's responsible for the cost of the cleanup on, say, those provincial lands if it's seeping out elsewhere?

Mr. Seth Cain: The federal contaminated sites action plan is normally able to fund the cleanup when the contamination has started on federal lands or as a result of federal activities and is considered a federal contaminated site.

Ms. Lindsay Mathyssen: Would those other jurisdictions have to go after that money, or would it be more proactively provided?

Mr. Seth Cain: Once the contamination has been identified, it's proactive. It is up to the custodian of that site—DND or whoever—to understand, communicate with an adjacent landowner and then work to sample and determine a path forward, working with a provincial regulator, as Greg mentioned, or otherwise. Then FCSAP is able to fund that work to DND or another land custodian.

Ms. Lindsay Mathyssen: Okay.

Mr. Carreau, can you clarify what role Health Canada has in the testing and assessment of the human health risks on DND properties? Is your team at any point involved in the analyzing of test results or providing guidance on interpreting those health impacts?

Mr. Greg Carreau: Thanks for the question.

We do have to provide guidance to custodians, including DND, on how to sample, where to sample and what analytical methods should be used to ensure rigorous testing is done to establish levels of concern in those areas. We also provide guidance on interpreting the results that come back, comparing them to levels of concern that we've identified.

In the case of drinking water, we'd advise on what treatment could be implemented, both domestically and community-wide, to address those concerns very much hand in hand with custodians, making sure the testing is done in a scientific and rigorous way, and then providing guidance and support on interpreting those results.

Ms. Lindsay Mathyssen: To Mr. Tolmie's point, you're providing guidance. You are not the ultimate authority.

Mr. Greg Carreau: That's correct.

Ms. Lindsay Mathyssen: Okay.

In conducting the work on identifying and assessing those contamination sites on federal lands, what expertise is required? What types and numbers of experts would you expect to be involved in that ground-level investigation?

Mr. Seth Cain: I'll start, if I may. Thank you for the question.

It very much will depend on the nature of the site. Sites can range from.... They can be quite simple, like a petroleum hydrocarbon spill that has a limited extent. That's relatively straightforward for contaminated sites experts who are available in the private sector or even within a larger department where they have a fair number of staff with science expert backgrounds.

In other cases, it can be a highly complex mixture of chemicals that risks spread and really needs the benefit of engaging with experts at Environment Canada or Health Canada to be able to determine the risks and an appropriate path forward.

The Chair: We will have to leave it there.

Mrs. Gallant, you have five minutes.

● (1625)

Mrs. Cheryl Gallant: Thank you.

There had been previous reports of military disposal on AECL land adjacent to Base Petawawa. Previously, the standing committee talked about this, but it didn't get any answers. There were reports of biological warfare containers of nerve gas, mustard gas, anthrax and other unknown agents that were buried in the waste disposal site for the low-level waste that was buried on AECL property.

Is there an inventory of what the military buried there?

The reason I ask is that they are about to exhume that soil, clean it and put in a near-surface waste disposal facility to contain it. It would be helpful for the people who are on the ground or operating a backhoe to know, if they come across a barrel with their scoop, not to puncture it as it might have nerve gas or anthrax in it. Is there an inventory?

Ms. Sarah Evans: Thank you very much for the question.

We do have the federal contaminated sites inventory, which has everything that custodians across the country have identified. In terms of the specifics for that specific site, my best advice would be, when DND officials come, to ask them specifically about that site and what detailed information they have available.

As my colleague has indicated, it's certainly within the accountability of the Department of National Defence. They would be tracking all of that sort of information.

Mrs. Cheryl Gallant: We have asked that question and they didn't know or just wouldn't tell us. I hope they tell you.

Last week, Minister Blair came to this committee and claimed that the Treasury Board made a decision to exempt the Department of National Defence and the Canadian Armed Forces from the second round of spending cuts.

Is this accurate?

The Chair: Is that relevant?

Mrs. Cheryl Gallant: It is because we're talking about money, and this project is going to cost money.

The Chair: Insofar as you can answer the question, go ahead.

Ms. Sarah Evans: I apologize to the honourable member, Mr. Chair. I'm not involved in that specific exercise, so I'm not familiar with the details of it.

Mrs. Cheryl Gallant: Would you ask the people at Treasury Board Secretariat who would know the answer to that and provide us with the documentation, so we would be able to verify that what the minister told us is true?

Treasury Board Secretariat—

The Chair: Hang on here.

Mrs. Cheryl Gallant: Can we request that? Do you need a motion?

The Chair: You can request it, but you need to request it of people who can actually deliver.

Mrs. Cheryl Gallant: I know she can't deliver it, but would she take that request to the people at Treasury Board Secretariat so that we can get the verification?

The Chair: Presumably, she could transport the request. Whether she gets the answer is another issue.

Mrs. Cheryl Gallant: Maybe somebody from Treasury Board Secretariat is watching and they'll get the question.

The Chair: It's a very loose undertaking, shall we say.

Mrs. Cheryl Gallant: Treasury Board Secretariat is also responsible, overall, for government cybersecurity.

What is the mechanism by which the centre for cybersecurity contacts the House of Commons when there is a widespread cyber-attack going on?

The Chair: Again, I'm not quite sure I see the connection here.

If somebody has an answer to Mrs. Gallant's inquiry, we're all ears.

Ms. Sarah Evans: I apologize again, Mr. Chair. I'm not familiar with the cybersecurity. That would fall under the chief information officer.

Mrs. Cheryl Gallant: Do we know that the money is in place to carry out these very important environmental remediations on military property?

What we received in the supplementary estimates was an indication that there was going to be a $2.7-billion cut to military spending. What you're doing is very important, and I want to ensure that the money is going to be there to carry out your full mission.

The Chair: Again, I'm not quite sure how this panel of witnesses would respond to a question such as that, but you are more than welcome to try to respond to Mrs. Gallant's question.

Ms. Sarah Evans: There was an announcement in the most recent budget about the renewal of the federal contaminated sites action plan program, and we're working closely with our colleagues in Environment and Climate Change Canada, as well as all custodians, to be able to move forward with implementing what was announced in the most recent budget.

● (1630)

Mrs. Cheryl Gallant: Thank you.

Mr. Fraser Tolmie is going to continue.

Mr. Fraser Tolmie: I wish I could have merged these with the other 30 seconds I had before.

Just following up, the comment was made that the military, DND, is not obligated, or does not fall under the Treasury Board or any other department, to disclose or inform you of contaminated sites. Is that correct? That's my understanding.

Ms. Sarah Evans: We have the federal contaminated sites inventory. The federal contaminated sites inventory was launched in 2002. All federal custodians, including the Department of National Defence, are required to report annually in regard to all of their suspected or confirmed contaminated sites within the federal contaminated sites inventory.

The Chair: Mr. Powlowski, you have five minutes.

Mr. Marcus Powlowski (Thunder Bay—Rainy River, Lib.): My colleague Mrs. Gallant suggested that in contaminated sites there would be a concern of barrels of anthrax. Did Canada ever use biological weapons or manufacture them or store them, to your knowledge?

Mr. Seth Cain: None of us would have that type of knowledge or expertise.

Mr. Marcus Powlowski: Would that be something that would be considered confidential?

Mr. Seth Cain: It's a question that I would defer to National Defence, I think, to respond to you.

Mr. Marcus Powlowski: I guess the question for Mr. Carreau would be this. Even if we had such things in the 1950s, is that, 70 years later, still going to be biologically active? Is there any legitimate concern about biological contaminations like that?

The Chair: I'm not quite sure that you feel comfortable answering that question, but you're more than welcome to do so.

Mr. Greg Carreau: I wouldn't be able to answer that question.

Mr. Marcus Powlowski: Let me switch over to PFAS, which I guess is what we're here to talk about. In which military sites, former or existing, have we found high levels of PFAS? Where is this? Is this in the water, the groundwater, the surface water...?

Mr. Greg Carreau: Thanks for the question.

As my colleague Ms. Evans noted, the federal contaminated sites inventory lists a number of contaminated sites across the country, including those that may contain PFAS. There are upwards of approximately 100 contaminated sites across the country that contain some levels of PFAS contamination. The contamination would largely be in soil and groundwater.

Mr. Marcus Powlowski: Are the sites primarily sites that used to be or still are air bases? My understanding is that the concern was that it was coming primarily from the foam that firefighters used to fight fires. Is it just at those sites, or is it at other sites too?

Mr. Greg Carreau: I can't speak to that. Custodians would be the best place to identify where all their sites are and what activities led to that contamination.

You are quite right, honourable member, that the contamination was resulting mostly from aqueous film-forming foams that would have been applied either to extinguish fires or to train firefighters on how to use those foams. On the repeat applications, those would be at military applications or airports or other installations that would have had those activities.

Mr. Marcus Powlowski: How do we know that the source of contamination was the military?

I looked up an article published in the New York Times, which cited a Nature Geoscience magazine. I guess it combined a whole bunch of studies of 45,000 water samples from around the world. They found that 31% of groundwater not near sources of contamination had harmful levels of PFAS in it—the levels were based on the U.S. Environmental Protection Agency levels—as did 16% of surface water. It seems like it's fairly ubiquitous even around places where you don't have obvious sources of contamination.

If you find it in a place, how do you know it was the military that caused it, or do we not know that or assume that?

Mr. Greg Carreau: Thanks for the question.

You're quite right, honourable member, that PFAS are being found and detected around the globe, including across Canada and in its remote areas and northern communities.

I'll defer to the Department of National Defence regarding whether they've attributed their plume and their activities as a source of contamination in certain areas, but I have full confidence that it's done in a very rigorous and scientific way.

● (1635)

Mr. Marcus Powlowski: Have we admitted responsibility when there is a high level, or is there a point of contention as to who caused this?

Mr. Seth Cain: It will depend on specific sites and the circumstances.

As with other contaminants, such as petroleum hydrocarbons, the hydrogeology can model and predict how these types of contaminants enter the soil, then move through soil and groundwater. While PFAS have their own unique characteristics, there is a very strong scientific basis for sampling, testing and predicting how these things move through the environment. That's the type of thing Environment Canada supports DND and others with.

DND will be able to speak about specific sites, if you have questions.

The Chair: Mr. Powlowski is done.

[*Translation*]

Ms. Normandin, you have the floor for five minutes.

Ms. Christine Normandin: Thank you very much, Mr. Chair.

This time my questions are for both Mr. Cain and Ms. Evans.

Mr. Cain, you discussed the costs associated with site decontamination and the fact that budgets have previously been set aside for that purpose. I'd like to know more about how those funds are used. I'm thinking, in particular, of cases where decontamination activities have to extend beyond the contaminated site and others where contamination victims seek compensation.

How are those guidelines established? Are they unique? Is there a calculation table? Are amounts determined on a case-by-case basis?

In addition, how do you discuss the matter with Treasury Board when you're forced to go beyond previously determined amounts?

I'd like to know how that works when you have to decontaminate a site and perhaps to pay compensation as well.

[*English*]

Mr. Seth Cain: Thank you for the question.

Underpinning FCSAP and the work each custodian does are the guidelines established by the Canadian Council of Ministers of the Environment. Those guidelines are designed to be protective of human health and the environment. They very much guide the work each custodian does on its sites, including in cases where the contamination has left a site. Custodians apply those guidelines in a way that is representative of the type of land use intended to occur there in the future. Cleaning a site for a future industrial purpose is different from cleaning it for residential use, for example. These types of things apply as custodians are designing their remediation and risk management plans.

If we go into a space like indemnification, that's an area where it's very much a question we would work through, case by case, with the Department of Justice and the specific custodian. I hesitate to speak in generalities about that topic area.

[*Translation*]

Ms. Christine Normandin: You've explained how this works for decontamination, but what about mitigation measures? I'm thinking more specifically of the case involving the Bagotville military base, which concerned the installation of a water filtration system by the municipality, not decontamination of the site. The matter extended beyond the decontamination field.

Are there guidelines for that kind of situation?

[*English*]

Mr. Seth Cain: Yes, thank you for the question.

Maybe it's worth spending a moment to differentiate between remediation and risk management.

Remediation, as a concept, is about removing or completely addressing the contamination away. For example, maybe they filter it out of the water on a site in order to remove it permanently.

Risk mitigation tends to be something like putting up physical barriers so people cannot access a contaminated site. It could include capping a site so rainwater is unable to penetrate it and push contaminants into groundwater. Another type of risk mitigation can be breaking the pathway between the contaminant and a human or an animal. Water filtration is a valid approach used. That is the situation you referenced in the city of Saguenay.

I'm not sure if I covered all the elements of your question. Hopefully....

● (1640)

[*Translation*]

Ms. Christine Normandin: Are there previously established monetary guidelines for this kind of situation?

[*English*]

Mr. Seth Cain: I'm not familiar with that type of scenario, so I'm unable to speak to it. In the case of Saguenay, the federal government has contributed funding and is paying most of the cost for the city to be able to add and operate water filtration. I would point to that as the situation for that community.

[*Translation*]

Ms. Christine Normandin: Does the Treasury Board Secretariat or your department communicate with the litigation branch at any time if legal action is taken? We've seen that in the past. At what point do parties communicate with the government litigation branch?

Ms. Sarah Evans: I've really never heard of that type of work at the Treasury Board Secretariat. Generally speaking, we work closely with experts. As my colleague said, there may be a few justice department employees who handle those sorts of things, but I'm not really aware of that kind of consultation.

The Chair: Thank you, Ms. Normandin.

[*English*]

Ms. Mathyssen, you have five minutes.

Ms. Lindsay Mathyssen: I'd like to go back. We were talking about the guidance that's provided, not the authority on issues....

How often does DND ask for guidance from Health Canada or from Environment Canada to come in and help with that testing in those assessments? How often has that been done?

Mr. Greg Carreau: I can start. I know that Environment and Climate Change Canada is also an expert department that receives many calls for advice. I would say that it's routine, ongoing and regular in terms of the advice and guidance that's sought by the Department of National Defence.

That will range from help in delineating potential contamination, setting a priority level of how high a priority should be on contaminated sites and determining how to do the risk assessment analysis. What is the level of risk of the current concentration on the contaminated sites? What are treatment or mitigation measures?

Then following, we also support engagements going to communities and other areas to help communicate what the risks are to communities from a human health perspective. I would characterize it as very regular, very collaborative and ongoing.

Ms. Lindsay Mathyssen: Is it like a monthly thing?

Mr. Greg Carreau: It's highly variable depending on the situation.

Mr. Seth Cain: I would echo those remarks. I don't have specific data about how often it is that DND reaches out to Environment Canada on specific sites. I would have to request that.

Ms. Lindsay Mathyssen: Is it fairly regularly?

Mr. Seth Cain: It's certainly done regularly, but I'd have to ask for data.

Ms. Lindsay Mathyssen: I'm a little bit concerned about what we've heard from others—not today—about the lack of monitoring or the auditing of the process. If Health Canada, for example, is concerned that there are human health impact assessments that are mismanaged, say, on a particular site, do you have the option to take that over to then access the test results? Do you have the option to access the site to conduct any independent tests?

If there are complaints from the public that would go through you as opposed to concerns, how would they be managed?

Mr. Greg Carreau: Certainly there's no proactive role for Health Canada in which it would proactively go and assess, as you've mentioned. However, if there are requests from the public or others, that would be a conversation we would have with the Department of National Defence to see what helping guidance we could provide.

Ms. Lindsay Mathyssen: In terms of that chain of command—and I think Mr. Tolmie was trying to get to this, too—the custodian, I think the term is, is the ultimate authority. Is there no role if there's a concern from Health Canada or Environment Canada? Is there no way to override or to enforce the rulings upon another custodian?

● (1645)

Mr. Seth Cain: It can be difficult to speak in hypotheticals.

How I would respond is to say that, if Environment Canada or Health Canada is made aware of a particular case, and DND or any custodian is in need of some supporting detailed analysis, that is possible for us to do. We can review the conclusions.

I think we would discuss it with DND or any given custodian and then assess the science, if that was required. I would point to the accountabilities of each custodian, which we've mentioned, and also to the professional obligations of the staff and the consultants who work with them to meet their ethical and professional requirements.

Ms. Lindsay Mathyssen: Ultimately, in terms of this idea of silos within departments, if Environment Canada, say, has these concerns and it goes up its totem pole, because those poles are equal, is there an auditing process? Is there an assessment of who ultimately, at the end of the day, wins for the best-case scenario of public health?

Ms. Sarah Evans: If I may, there are several lines of defence. As my colleagues indicated, it starts at the project level with the experts on the ground who are working on a specific project. There's then a program layer, which is led by my colleagues in Environment and Climate Change Canada. Part of that is, yes, primarily in terms of sharing lessons learned and best practices, but there's also governance there. Then we get to our auditing layer, which is our third party experts. If I understand your question, that is what you're looking at.

National Defence does have its own internal audit function, which is third party, but there are also roles for other third party auditors, such as the Office of the Auditor General. There's the commissioner of the environment and sustainable development, who does audits. They've done a number of audits related to contaminated sites. There was one that just came out recently, in the spring.

There are also a number of legal requirements stemming from different pieces of legislation.

The Chair: We're going to have to leave it there. Ms. Mathyssen is well over her time.

Mr. Stewart, go ahead for five minutes.

Mr. Don Stewart (Toronto—St. Paul's, CPC): Thank you, Chair.

Thank you to the witnesses for being here today.

I think this is a question for you, Ms. Evans.

What proportion of all of the sites listed on this inventory are managed by CAF or DND?

Ms. Sarah Evans: I apologize, Mr. Chair. I do have that data, but I will need to find the specific number for the member.

In total, there are about 24,000 sites within the federal contaminated sites inventory. About 18,000 of those are closed and about 6,000 are still active. I have the figures, so if I can't find it quickly for you, I will get back to you with those specific figures of how many of those are DND sites.

Mr. Seth Cain: I have the numbers at my fingertips. I had a chance to search while Sarah spoke.

DND has 1,947 contaminated sites listed in the inventory. Of those, 1,200 are closed, 627 are active and then 119 are suspected. That data is accurate to the end of last fiscal year.

Mr. Don Stewart: Is that around 700 of the 7,000? Around 10% of the total are DND sites then, roughly.

Ms. Sarah Evans: That's correct. About 750 of the 6,000 active sites are DND.

Mr. Don Stewart: It's little higher—like 12% or something like that.

Are new chemicals being added to the list of contaminants from time to time?

Ms. Sarah Evans: Yes, we recently added PFAS to the federal contaminated sites inventory, as my colleague spoke about.

In terms of what we report through the inventory, we work closely with the expert departments to determine what additional chemicals should be added.

Mr. Don Stewart: That number of 627, was that at like 400, and then when PFAS were added, all these new sites needed to be added?

Ms. Sarah Evans: My understanding is that it's on existing sites. On existing sites, we've now identified additional chemicals. It can happen that sites could be closed and then reopened because additional chemicals are identified.

● (1650)

Mr. Don Stewart: Is there any significant difference between per- and polyfluoroalkyl substances?

Mr. Greg Carreau: Thank you for the question.

It's a class of all perfluorinated compounds, which are, in essence, to be treated as a class, recognizing they all have similar uses and similar health and environmental concerns.

Mr. Don Stewart: When it comes to remediation for PFAS or things like TCE, are the techniques roughly the same?

If it's a soil contamination, do you dig the soil up, put a liner in, put it through a machine, clean it and then put it back, whether it's TCE or PFAS?

Mr. Greg Carreau: I can speak from a drinking water perspective. The treatment is very unique to the chemical and how the contaminant behaves, so a treatment for perfluorinated compounds would not necessarily be the exact same treatment as for other chemicals.

Mr. Don Stewart: In aggregate, is it that we're going to pump the water, treat it and put it back, with a specific routine of decontamination specific to the chemical?

Is that kind of the macro way it's done? Is that the same, or is it completely different?

Mr. Seth Cain: There are common approaches used—for example, removing contaminated soil from the site and taking it to a certified disposal facility where it can be treated. Another technique that's commonly used is pumping, cleaning and returning groundwater. Working it through filters is part of that process. There can be various barriers and things that are put up to allow for treatment as well.

There's a mixture, but there are common ones that get used. As to whether they work specifically in a context, that can be very site-specific.

Mr. Don Stewart: What if there was, at the time, proper disposal into a disposal area, but it turns out that, in terms of the disposal techniques, what they thought at the time was a proper liner for a contaminated disposal site just failed? The engineering perhaps wasn't what it maybe should have been at the time.

Mr. Seth Cain: Thank you for the question.

The quality of the science and information we have certainly evolves. There are circumstances where a site managed and treated in one fashion has proved to be inadequate in the long term. One situation where that is occurring these days is in relation to climate change. Certain types of risk mitigation measures put in place, such as capping or relying on the permafrost layer to keep contaminants in place, are changing in ways that we couldn't have predicted a few decades ago.

I think the short answer is, yes, and if you have any questions, I would have a site-specific example.

The Chair: Thank you.

Mr. Collins, you have five minutes.

Mr. Chad Collins (Hamilton East—Stoney Creek, Lib.): Thanks, Mr. Chairman.

Welcome to our witnesses.

Way back in 1995, when I was first elected, the City of Hamilton took ownership of Transport Canada lands around the John C. Munro airport. It wasn't until about 2011 that we found off-site migration of PFAS materials on neighbouring properties. We traced it back to a firefighter training facility on airport lands.

I have to tell you that, from my experience, it was not an enjoyable process to deal with either the former government or the current government in terms of receiving compensation for the contaminants that were found. In the end, government officials paid for the off-site cleanup on lands that surrounded the airport, but the private operator that operated the airport on the municipality's behalf was stuck with the bill to pay for the contaminants that were found on the airport property.

I'm thinking of a scenario right now where our affordable housing strategy and national housing strategy will use Department of National Defence lands and transfer those properties to non-profit service providers. From a municipal perspective, we had enough resources to deal with the federal lawyers and all the ministry officials to defend our rights as landowners and seek compensation. I can't imagine a scenario where a non-profit housing provider would have the same types of resources if they found contaminants on their properties years later.

I'd like to ask you a question in terms of the current scenario. I'll use the example in Hamilton. I've given you the bare-bones version of what happened. It certainly left a bad taste in our ratepayers' mouths. Municipal council certainly could have some very colourful language to use in terms of how we dealt with that situation. How do we avoid those scenarios in terms of knowing that non-profit housing providers are going to use former DND lands? If they find surprises in the future, they don't have deep pockets.

I'm looking for your recommendations to the committee so that we can improve the legislation we have right now and ensure that this doesn't happen to someone who doesn't have the resources to fight the federal government.

● (1655)

Ms. Sarah Evans: I can start, Mr. Chair.

Certainly, within the directive on the management of real property, whenever a site is being disposed of, it's required that custodians are transparent about whatever information they have. Following up with regard to legal liability for something that may be discovered years down the line, that's something that would have to be specified within the agreement in terms of the sale of the property, but it certainly is a requirement that the department would have to be clear and up front with whatever information is known at the time.

Mr. Chad Collins: A couple of times during your testimony, you mentioned that these sites were used and abused decades ago. I'll use the Hamilton airport scenario as an example. The records just don't exist in terms of trying to find out who did what way back when. It's an airport in the middle of a farmer's field. We know that there was a training facility there, and we have people who used to work there who testified on our behalf, who said that these activities occurred when the federal government owned the property.

Again, non-profits don't have the ability to go back in time. They won't be able to do their due diligence in terms of hiring firms to go out and find that information. I understand that we can only deal with the information that we have in hand at the time when those land transfers take place. However, I think it's incumbent on the federal government to take responsibility for some of these legacy issues that come up and are a surprise.

I come from Hamilton. We've used and abused many of our waterfront lands for industrial purposes for good reason. The steel that we built in Hamilton has built not just our city, our province, but our country and many other parts of the world, but there are surprises that come up.

I'm looking to you for some kind of hope that there's an opportunity to change the legislation so that it doesn't make non-profit housing providers jump through hoops in order to get the compensation they deserve when a surprise comes up. I know you're not lawyers. Everyone's trying to deal with risk and those issues that come with it, and sometimes there's a hefty price tag. The current system doesn't work for many, and I'm just looking for recommendations that might improve the legislation that we have now so that others don't have to face the same.

The Chair: It looks like you're going to get something in writing someday.

That brings the second round to a close. I propose to run a third round of questions, and I think Mr. Tolmie is up.

With that, we'll start with Mr. Tolmie.

Mr. Fraser Tolmie: Thank you, Mr. Chair.

I'd just like to piggyback on something that my colleague Mrs. Gallant brought up earlier.

I spent some time in the U.K., in London. There would be a number of times when they would shut down parts of a block or a city because of unexploded bombs that had been dropped in World War II. They were considered dangerous. They weren't considered dormant. They were considered a risk to the community around them.

When Mrs. Gallant asked the question earlier about a base that is located in her riding, I was a little disappointed that there were some questions about where she was going and the fact that there could be things like anthrax, nerve gas and even mustard gas that may be located in a site on or close to the base and that there might be people who are exposed to that. They're going to be remediating that. I don't care whether it's 100 years or 50 years. I think that's a concern, and that's a valid concern that should be brought up.

I would like to know if those chemicals are on your list: anthrax, mustard gas, nerve gas or any types of agents that the military may have used.

● (1700)

Mr. Seth Cain: For my part, I would have to ask our experts about those types of chemicals. I say that in part because those are not the common types of contaminants that we find on the vast majority of federal contaminated sites. I think I could take that question away and send a response back to the committee. They're not the types of contaminants that we see. This may be, in some cases, the first time I've ever heard of them in a federal context of a contaminated site, so we would have to look into it.

Mr. Fraser Tolmie: Just bringing it full circle here, where we have concerns is whether there are chemicals that the military uses that are not on your list. How do they disclose that to Environment Canada, the Treasury Board and to Health Canada? How do we know?

Is there a set standard that the federal government has put in place that all departments are required to answer or identify?

Mr. Greg Carreau: I can say that, under the Canadian Environmental Protection Act, there is a list of chemicals, an inventory of chemicals, that are permitted in Canada, whether they be private entities or federal jurisdictions that are allowed to be using those. Anything that's not on that list would have to be notified to both Environment and Climate Change Canada and Health Canada before their market access.

There is a well-defined list of chemicals that are currently used in Canadian commerce, including at DND bases. Those are actively being assessed, both at Environment and Climate Change Canada and Health Canada, for the risks.

Mr. Fraser Tolmie: Okay.

I want to say for the record that I understand that you're trying to put in a standard. That's important. It's important for the safety of employees. It's important for the safety of the Department of National Defence. The concern I have is where the gaps are and how we can address them in this committee in order to prevent other people in the future from being exposed to chemicals that could be toxic.

Is there a plan that you have going forward to identify chemicals that are not on your list? Do you have a plan in place for that, which the military and the Department of National Defence is following?

Mr. Seth Cain: I think for the space that these questions are in now, it will be good to hear from DND about that. We're probably into some occupational health and safety as well as some types of issues that may be in more in a uniquely defence space, so I will suggest that.

In terms of the process for identifying chemicals of concern—and I may refer this question to Greg in a moment—there is the chemicals management plan that the federal government has. Health Canada and Environment Canada co-lead that. It is not my particular area of focus, but it is a long-standing program that's been working through the many industrial chemicals that have been developed over the last 100 years and identifying and learning about those so as to understand the risks to human health and the environment.

The Chair: Thank you, Mr. Tolmie.

The defence department is coming next Tuesday. That's a question that probably should be directed to DND because it is quite a legitimate question of as to whether they have a list.

Ms. Lapointe, you have five minutes.

Ms. Viviane Lapointe (Sudbury, Lib.): Thank you, Chair.

I have to say that I would be remiss, as the member of Parliament for Sudbury, not to take this opportunity to highlight one of the most remarkable remediation projects in the world, and that's the regreening of Sudbury.

My question is directed to you, Mr. Cain.

The initiative of the regreening of Sudbury has transformed a once heavily contaminated environment, which negatively impacted our air, our water, our soil and, consequently, the health of our residents, our wildlife and our natural ecosystems. Having witnessed what it takes to reverse such damage on such a large scale, I'm very keen to learn more about your processes.

Could you outline for the committee how Environment and Climate Change Canada approaches large-scale remediation projects and what the key steps involved are in tackling these types of challenges?

● (1705)

Mr. Seth Cain: There are multiple success stories coming from the federal contaminated sites action plan, and I think DND will be well placed to speak to some of the successes that it's had in some detail. These major types of situations like you're speaking about in Sudbury are complex and are often the result of decades-long efforts to assess, plan and clean up sites and then provide nature time to recuperate and fully restore.

I think I would invite DND, when they're here, to speak to their efforts in Esquimalt, in the harbour there, where 200 years' worth of industrial and various activities have created multiple hot spots and difficulties, both for the harbour and first nations. After extended efforts, there are signs of sea life returning to Esquimalt Harbour. There are those types of cases.

Hamilton Harbour is another place where, through work on the Great Lakes action plan, there's been significant work to contain and restore it. That's a site that has been worked on outside of FCSAP, but it is certainly a very long, collaborative effort with the city and the province, and there are certainly many more like that. There is a lot of good work being done, certainly, across DND and other partners.

Ms. Viviane Lapointe: Can you tell us how your department collaborates with other federal entities or stakeholders to address contamination challenges, and how you ensure the efficient use of resources?

Mr. Seth Cain: The FCSAP program, I think, is really the heart of how we work collaboratively. It is a horizontal initiative involving expert science departments providing the sort of guidance and expertise that can be the basis for custodians to know, to plan and to understand risks. We use a common set of nationally used classification approaches that were developed by the CCME. That set of tools allows the custodians to be able to identify the sites that pose the higher risk to human health and the environment.

Per Treasury Board policy, custodians must then focus on those sites first, as a general rule. It is that collaborative effort of basing the program on sound science, of assessing sites first to understand the sorts of contaminants that are there and of then relying on the expertise of custodians, the private sector and departments to develop the right types of remediation and risk management plans and to make sure they make sense. Poor decisions can cost a lot of money, and good decisions can save a lot of money. Working together, I think, is at the heart of it.

Ms. Viviane Lapointe: Ms. Evans, I have a similar question for you.

How does the Treasury Board Secretariat work with the many federal departments to establish priority projects and achieve measurable results?

Ms. Sarah Evans: As my colleague indicated, we have a common set of standards, which is something that we work together on, not just across federal departments but also with provinces and municipalities, in order to have that set standard, which is established, as my colleague indicated, by the Canadian Council of Ministers of the Environment. Then we use the tools within the Treasury Board policy instruments to ensure that all of the custodians are working together.

The governance, which is led by my colleagues at Environment and Climate Change Canada, really makes sure that we're bringing people together, and that's supported by us within the Treasury Board Secretariat.

Ms. Viviane Lapointe: Can you provide the committee...?

Do I have time?

The Chair: No.

However, I heartily endorse Ms. Lapointe's view on Sudbury. It's quite a remarkable transformation. I would even say that it's miraculous, especially for those of us who were ensconced in the luxury of the Holiday Inn that time.

You have five minutes, Madame Normandin.

[*Translation*]

Ms. Christine Normandin: Thank you very much.

I'm going to continue in the same vein with Ms. Mathyssen and discuss the recommendations that are made to site custodian organizations.

I understand that they aren't binding. The site custodian organizations are solely responsible for implementing those recommendations. Unless others can make binding decisions, ultimately, the site custodian organization is solely responsible for implementing recommendations. Is that right?

● (1710)

[*English*]

Mr. Seth Cain: You know, custodians are responsible for meeting applicable federal laws and regulations. If the contamination goes onto non-federal lands, provincial or territorial regulations may apply. It is working to meet those standards and guidelines. It's not always as simple as a black-or-white type of answer. However, that's ultimately what they are expected to meet.

[*Translation*]

Ms. Christine Normandin: Are the recommendations that you make public? Are they protected by professional privilege, as is the case with lawyers? Can anyone obtain them via information access requests? What's the status of your recommendations?

[*English*]

Mr. Seth Cain: If I've understood your question correctly, you're asking whether the information is available, whether it can be made available, through, say, an access to information request. I would say that, generally, yes. Unless there is a particular security element or something, information can be made available.

One of the roles that Health Canada has helped FCSAP with is to communicate risks. The risks associated with a particular contaminate or with groups of contaminates are not always obvious. They can vary greatly depending on the length of exposure or the particular demographic or person, so I think it's just important to keep in mind that communicating responsibly is part of the role of the program and of government. It's to, yes, share and be transparent, but it's also to provide context. Otherwise, things can be more frightening than they actually are, in fact, once there's the proper context.

[*Translation*]

Ms. Christine Normandin: Let's talk about cases where contaminants spread outside a federal site. We've heard that, in some instances, contamination may come from a source other than the federal site.

Are any of you responsible for assessing the contamination source in that instance? For example, you could determine that the Department of National Defence may not be responsible for the contamination and that a nearby private business is the source.

Who's responsible for conducting that kind of assessment?

[*English*]

Mr. Greg Carreau: Thanks for the question.

There is very clear guidance on how to delineate contamination. There's a lot known about these chemicals—how they behave in the environment, how they behave in groundwater and soil, and how they move based on geology and other characteristics. The source of contamination is well understood at these sites based on a very science-rigorous process of identifying the concentrations and how they're moving across a property.

If they move from federal land to a provincial space, clearly the building landowner gets engaged. The province in question also gets engaged. It's a very collaborative process, from that perspective.

[*Translation*]

Ms. Christine Normandin: My question was more specific. Let's consider a case involving information to the effect that another entity, a private business, for example, is responsible for the contamination, not the federal site. Theoretically, who conducts that assessment?

[*English*]

Mr. Seth Cain: Thank you for the question.

If we're speaking about non-federal land, the general answer is that the province or territory is the correct authority to refer a question to, as a landowner. You work with the relevant province and their authorities, be it their department of environment or whatever, in order to understand and investigate.

[*Translation*]

Ms. Christine Normandin: Once again, I don't think that answers my question.

Let's consider a case in which a federal site has contaminated a provincial site, but the federal entity asserts that another organization is the source of contamination, not the federal site. Who conducts the assessment in that instance?

[*English*]

Mr. Seth Cain: I may not be quite understanding the question. I'm going to listen again with the translation, in case I'm missing a nuance. I apologize.

● (1715)

[*Translation*]

Ms. Christine Normandin: Information may occasionally be received to the effect that a federal site is the source of contamination of another, non-federal site. Consider the example of the Bagotville military base and the Ville de Saguenay. Let's say the federal government informs us that there may be a source of contamination that isn't the federal site. It could be a private company, for example. In that case, who conducts the study to determine whether an entity other than the federal site is possibly the contamination source?

[*English*]

Mr. Seth Cain: I'll build on part of the earlier responses from me and Mr. Carreau.

Hydrologic-type modelling can help us understand how contamination moves in the environment. Ultimately, in the case you're thinking of, that analysis would have been done by National Defence.

However, custodians work with local municipalities and provinces to identify other potential sources of contaminants, be they a garage, a repair shop or another group that uses chemicals of this nature. From there, you can start to identify those other sources and then how much they may have contributed to a given—

The Chair: We'll have to leave the answer. That was a very long five minutes.

All right, Ms. Mathyssen. You have five minutes.

Ms. Lindsay Mathyssen: Thank you, Chair.

Just to go back a little to when we were talking about these workplace exposures, things that you have to deal with and trying to assess.... People are working every day, and they may not understand or be made aware of the toxicity of the things that they're working with. Then, time goes by and they have these longer-term side effects.

You mentioned that communication is very important, and that the conversation, the awareness, is consistently there, but beyond a long-term cancer risk there are so many different kinds of exposures. There's reproductive health. People might not directly attribute it to their workplaces, but they may see other things or try to look at family history—all of these things. What assessment is being done? What is the federal government doing to ensure that the communication is happening actively so that people and workers truly understand, in federal workplaces, that they are potentially in an exposed state, that they are exposed, I guess you could say?

Mr. Greg Carreau: Thank you very much for that question.

Health Canada does not play a role in the occupational health and safety space, but I can offer that there is a very elaborate occupational health and safety program across the country, delivered from both provinces and territories and at the federal government, through the labour program in Canada.

Department of National Defence officials could speak more eloquently about how they communicate to workers the risks that may be at their facilities, whether they are from just regular practices, day-to-day activities or exposure to contaminated sites. Again, there is a well-defined list of chemicals currently in commerce. There's a well-identified body of science, which is evolving, that understands the risks. The current occupational health and safety program is reliant on a base of decades of science that understands these chemicals and other risks that may be present in the workplace.

Ms. Lindsay Mathyssen: In my riding the Department of National Defence owns a property. It used to be an ordnance depot. It's directly now beside the site where they're building a large amount of housing. There's a community park. It's quite an active area. When I started to look at the potentials of the use of DND land—as in building housing and the uses of it—I discovered that it's listed under the federal contaminated sites inventory. It's an active site of chlorinated volatile organic compounds contamination with high priority for action.

Now, the government spent nearly $18 million on remediation of this site. There have been 38,600 metric tons of soil treated and 48.5 million litres of contaminated water. Can you comment on the scope of this site and, then, what you would have expected your departments, the custodian DND, to communicate, related to the scope of that contaminated site, to the community?

● (1720)

Mr. Seth Cain: I think I know the site you're referencing. Is it the Highbury Complex, maybe? It's not a site that we've been involved in. It's not an area where DND needed advice from us about ecological risks, so I can't really offer specific perspectives about that site and how DND managed it other than to say, at a high level, that it followed the standard steps of proceeding through assessment, planning and remediation.

We understand it's closer to the finish line now than it is to the starting line, but the details would have to be spoken to by DND.

Ms. Lindsay Mathyssen: That doesn't really answer...and maybe it's something that you can't. However, is that, in your expert opinion, a large site? How are the dangers of that site, the potential risks and so on, related to the size of that site? How are they communicated to the public in that area?

Then, I would ask, are they public? Is that consultation public?

The Chair: There are three or four questions, and we are over time. Can you answer those briefly?

Mr. Seth Cain: They would have be asked of National Defence.

The Chair: Okay.

Mrs. Gallant, you have five minutes.

Mrs. Cheryl Gallant: There's confirmation of PFAS contamination on Base Petawawa. What would be the short- and long-term consequences of PFAS exposure?

This site was specifically on Garrison Petawawa's firefighting training area.

Mr. Greg Carreau: PFAS are well characterized, as I've explained earlier in some of the comments I've made. There's a well-defined body of science that shows effects on health, including on multiple organisms and systems, including the liver, the kidneys, the thyroid, the immune system and the nervous system. There are also reproductive and developmental effects. The risks from PFAS have been well characterized in a lot of the science publications that have been put forward.

I don't know the specifics, necessarily, of the Petawawa base, but I can say that a drinking water quality objective has been established by Health Canada that identifies a threshold toward which it would be the expectation of all provincial, municipal and federal entities to strive. That would not mean that a single exceedance would cause dramatic health effects. However, it's exposure over time that we would be concerned about with regard to increasing the health risks of the issues I just outlined.

Mrs. Cheryl Gallant: How would they even capture or make the observation of the health effects versus that contaminant in the soil? These are the types of conditions that would occur as a regular consequence of firefighting—cancer, etc. Has there ever been a study done that looks at the medical records of firefighters—former firefighters and existing firefighters—and compares those to the potential consequences of their being exposed to it? Is that something that has been done?

Mr. Greg Carreau: Firefighters have been identified as a population more disproportionately impacted by a lot of chemicals and concerns, not just PFAS but also other chemicals and issues of concern.

The federal government has looked at biomonitoring data and cancer rates amongst firefighters. There was just recently a firefighter action plan that this federal government put forward, and it assesses a variety of chemicals that firefighters are more predominantly exposed to.

In short, it's clear that firefighters are a vulnerable population with regard to chemicals exposures. The actions that have been put forward to reduce PFAS are geared towards minimizing the exposure to the entire population but also to firefighters.

● (1725)

Mrs. Cheryl Gallant: Okay. I have two quick questions.

Is there anything to suggest that the contaminated sites on Canadian Armed Forces bases would have been excavated and carried off site for any reason?

Mr. Seth Cain: It is common practice in contaminated sites management to exhume contaminated soils and to move those to a certified disposal facility.

Mrs. Cheryl Gallant: Okay. However, if there was a new construction going on and they didn't have this money available, if they just needed to dig the hole and do something with the soil, would that stay on base, or would they just get rid of it for whoever was willing to pay for the build?

Mr. Seth Cain: I'm unable to speak to that.

Mrs. Cheryl Gallant: Okay.

Along with the contamination and the firefighters, there are also the ranges. There are decades of spent ammunition and lead in the soil, so much so that the ranges are no longer able to be used because there are depressions. If we have to send soldiers off to war or even to monitor a hot zone, it would be nice if they knew how to shoot. However, in Petawawa, they've had to close down a number of the ranges because they're just all sinking from the contamination.

What plans are there to decontaminate these range sites so that they can be rebuilt so that our soldiers can use them to practice shooting?

Mr. Seth Cain: I'm not aware of the details of the DND's plans for remediating any of its ranges.

Mrs. Cheryl Gallant: It's only chemicals, not the spent ammunition or anything that would have leached from the ammunition, that are be ameliorated at this time.

Ms. Sarah Evans: DND would be best placed to speak to the specifics. My general understanding is that DND has a specific program for unexploded ordnance in addition to the federal contaminated sites program.

The DND officials would be best placed to provide the details for those specific sites to you.

Mrs. Cheryl Gallant: Do they have any money for that? No.

The Chair: Soldiers who can shoot; that's a concept.

Mrs. Lalonde, go ahead.

Mrs. Marie-France Lalonde (Orléans, Lib.): Thank you very much, Mr. Chair.

I want to say thank you to the witnesses for their appearance today.

Mr. Cain, I hope you'll be able to answer these questions.

I was made aware of the work the government is doing under the chemicals management plan on the current state of the science for PFAS in Canada. The government made a science-based decision to exempt a class of fluoropolymers. I'm not an expert on those big words. From the scope of that report....

Actually, can you explain to this committee what those substances are and the rationale behind the decisions to isolate that group of chemicals? Could you also please remind us what the next steps are under the process to focus on substances of concern?

Mr. Greg Carreau: I can certainly respond on behalf of....

Indeed, there was a recent report that published the scientific findings of the class of per- and polyfluorinated alkyl substances. Based on that assessment, it determined there was a subclass for which there was a certain amount of uncertainty on both the health and environmental effects of that subclass within that broader class of PFAS chemicals.

There's a certain threshold by which it is determined under the Canadian Environmental Protection Act to take regulatory action on this class of chemicals. It was felt that further analysis was required on that subclass prior to making a full scientific determination.

In terms of a path forward, there has been a commitment to add fluoropolymers to the plan of priorities, which is a requirement under the Canadian Environmental Protection Act. There is a commitment to undertake an assessment in the near future of that subclass of fluoropolymers to determine whether or not they do have any health or environmental effects.

Mrs. Marie-France Lalonde: Thank you very much, Mr. Carreau, for a very thoughtful answer.

I have quick follow-up.

I think you mentioned a subgroup of PFAS substances that are known substitutes for the Kigali substances. The government has expressed its concern about regrettable substitutions, which is a valid concern for sure.

I'm told that certain industry players are concerned about a possible need to find a substitute for a substitute after millions of dollars in investment. Can you explain to the committee what the process to find viable alternatives entails and what regulatory markers or exemptions the government will consider as we work to find the lowest impact alternative for an undesirable chemistry?

● (1730)

Mr. Greg Carreau: Indeed, a regrettable substitution is an area that has been a concern of government officials, industry and all Canadians, I would say. An approach moving forward is that a chemical assessment is being done from more of a class-based approach that understands similar chemistry, a similar mode of action and similar uses to be able to identify which of those may be a concern and which of those may not. That would give predictability to industry on the chemistries there are concerns about from an environmental or human health perspective and those about which there are not concerns.

There's also a new mechanism under the Canadian Environmental Protection Act called a watch list that lists chemicals for which there may be concerns from a health and environmental perspective. That is a communication mechanism for industry and Canadians to stay away from that chemistry, recognizing the concerns we have. That's a basis upon which investments in alternatives can be made that would not be in areas of concern identified by the government.

Mrs. Marie-France Lalonde: Thank you very much.

Ms. Evans, I just had a conversation. We talked a lot about each of the roles and everything, but there were a few mentions of the collaboration between provincial and territorial governments in addressing contaminated sites and what roles they play.

Can you please tell us in a little bit more detail how that works in the practical terms of that collaboration? That is for either of you, but particularly Ms. Evans.

Ms. Sarah Evans: I can get started, and then I'll turn it to my colleagues from the expert departments.

When we're setting our standards and our policy for all custodians to follow, we want to make sure we're setting something that meets the federal standards and is aligned with provincial and municipal standards. What I referenced was the Canadian Council of Ministers of the Environment. They set those standards, and we reference those within Treasury Board policy to ensure those common standards apply to all federal custodians.

In terms of how it works practically, I'll turn to my colleagues from the expert departments.

Mr. Seth Cain: Thank you for the question. To build on that, those standards are set by a working group under the council. It's a contaminated sites working group. It has federal, provincial and territorial participants. Environment Canada, another part of the department, is a lead for that, and we work closely with Health Canada.

In setting those guidelines we are looking to, as Sarah mentioned, set standards that make sense for the country and are going to be used widely.

The Chair: We have a point of order. How exciting.

Mrs. Cheryl Gallant: I believe that Ms. Evans explained something about the UXO removal. There's a difference between the UXO program and actually the spent ammunition. The spent ammunition has lead in it and is leaching into the ground, so there are two different things.

When you come back with the answers, I would hope that this distinction would be made.

The Chair: I don't think that was anywhere close to a point of order, but it might be a point of clarification. If it needs clarification, we'll leave it to you to do so.

Before I let you go, to clean up a contaminated site, is that a Crown liability or a departmental liability?

Ms. Sarah Evans: Through the annual reporting process for the federal contaminated sites inventory all of the departments report their liabilities on a site-by-site basis, and then that's rolled up as part of the public accounts and is reported as a liability of the Crown.

The Chair: The contamination cleanup, does that come out of the department budget or come out of some other budget?

Ms. Sarah Evans: The federal contaminated sites action plan is an overarching program, and within that program, each department has a specific allocation. However, as you've noted, it essentially balances it out to a certain extent, so we're reducing liability while we're making those investments.

The Chair: I'm not sure I follow that. If I have a $100-million cleanup at Mrs. Gallant's site, is that coming out of DND's budget or is that coming out of some other budget?

● (1735)

Ms. Sarah Evans: There's a specific program budget for the federal contaminated sites action plan program. There is a portion of the remediation work that comes out of DND as existing reference levels, but there's also funding that comes out through the federal contaminated sites action plan program that's provided to each of the custodians to support that remediation work.

The Chair: Okay. I think we need to.... Mrs. Lalonde seemed to be able to follow that bouncing ball. I'm not sure I was.

Having said that, I just want, on behalf of the committee, to thank you for your appearance here today and the economical use of your time in giving your opening remarks. Thank you.

With that, colleagues, we're about to adjourn. Minister Duclos and colleagues will be here on Thursday, and then we resume this study next Tuesday and next Thursday.

With that, the meeting is adjourned.