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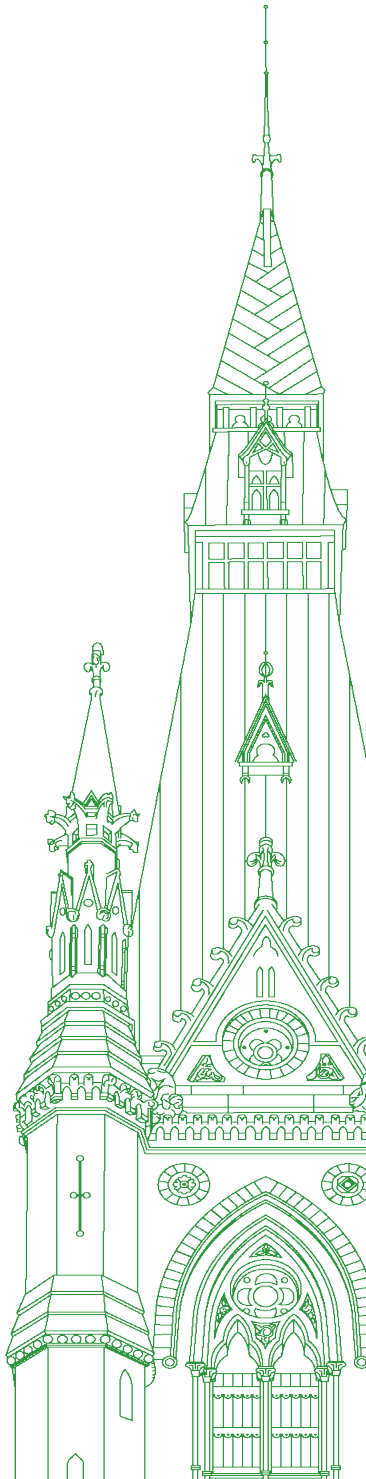

Chair: Mr. Ken McDonald

Standing Committee on Fisheries and Oceans

Tuesday, March 10, 2020

● (0845)

[*English*]

The Chair (Mr. Ken McDonald (Avalon, Lib.)): Good morning, everyone.

Pursuant to Standing Order 108(2) and our study on the state of the Pacific salmon, today we have departmental officials here to talk about that issue. I believe Big Bar is part of it.

We have with us, Jen O'Donoughue, assistant deputy minister and chief financial officer; Ms. Rebecca Reid, regional director general, Pacific region; and Andrew Thomson, regional director, fisheries management.

I know that some of you have been here before committee many times. Welcome.

Ms. Reid, I believe you're giving the opening remarks, for 10 minutes or less, please.

Ms. Rebecca Reid (Regional Director General, Pacific Region, Department of Fisheries and Oceans): Good morning, Mr. Chairman and committee members.

I'm very happy to be here and to have the opportunity to speak with you today.

[*Translation*]

Good morning everyone.

[*English*]

As already introduced, my name is Rebecca Reid. I'm the regional director general for DFO, Pacific region. I'm joined by my colleagues Ms. Jennifer O'Donoughue, chief financial officer in the national capital region, and Mr. Andrew Thomson, regional director, fisheries management, Pacific DFO.

[*Translation*]

I would like to thank the members of the committee for their invitation and the opportunity to update everyone on the department's efforts to restore safe fish passage at the Big Bar landslide site on the Fraser River and our ongoing work to protect and restore the health of wild Pacific salmon stocks.

[*English*]

Since we became aware of it, the Big Bar landslide has been an urgent priority for DFO at both the national and regional levels. Late last June, we became aware of a massive rock slide in a remote section of the Fraser River. This slide has posed and continues to pose unprecedented challenges to the ecosystem and to those who rely on it.

During a year when we saw historically low returns of sockeye salmon and at a time when many Fraser chinook stocks and steelhead were already a grave concern, it made a bad situation worse. The slide blocked the passage of many of these returning stocks, increasing the risk to conservation of these key species. It severely constrained the access for those first nations who rely on these fish for their food, social and ceremonial needs, as well as causing broader societal and economic hardships for indigenous people, recreational and commercial harvesters and the general public.

The response to the Big Bar slide was in many ways remarkable.

Within days of learning of the slide, indigenous leaders and staff from DFO, the Canadian Coast Guard and the Province of British Columbia met to establish a unified incident command post to oversee the recovery work. This collaboration created close, sustainable and dynamic working relationships within the governments of Canada, British Columbia and the many affected first nations. There was also sustained involvement with and outreach to the wider community of involved stakeholders to keep them informed and to seek input.

The response over the summer directly involved several hundred people and many more indirectly. Experts were engaged in project management, engineering, fish habitat and enhancement, science and biology.

While DFO took the federal lead to respond to the rock slide, as the summer work ended and we transitioned to a project to be managed, we realized that we needed expert help and advice about how to respond to the massive challenges ahead.

Supported by our colleagues at Public Services and Procurement Canada, we issued a request for information on November 27, 2019, which received a high level of interest and input from qualified and experienced companies and individuals. Public Services and Procurement Canada then initiated an expedited competitive bidding process on December 12.

On December 31, 2019, Peter Kiewit Sons ULC was awarded a $17.6-million contract to undertake extensive remediation efforts at the site throughout the winter months. This work began in early January 2020.

On January 17, Minister Jordan and Parliamentary Secretary Terry Beech travelled to the Big Bar landslide to see first-hand the ongoing work to address the slide and to meet with the High Bar and Stswecem'c Xgat'tem first nations and the Fraser Salmon Management Council. The minister affirmed to them and has since reaffirmed that the slide remains top of mind for the Government of Canada and an ongoing urgent priority for the department.

Last week, I had the opportunity to tour the site with colleagues from DFO and PSPC to see the work in progress and to meet with the two first nation groups who live in close proximity to the slide.

If I may, Mr. Chairman, I am going to go through the major contract winter work that is under way 24-7 to achieve as much rock removal as possible in this short time window, despite adverse wind, weather and locational logistics. I'm also going to cover two technical teams of experts assembled from government stakeholder groups, non-profit organizations and academia, who are helping to shape the comprehensive contingency and remediation plans for alternate fish passage and conservation-based enhancement if the winter work cannot achieve full fish passage by the spring freshet, which is expected within weeks.

Because of the time constraints that I have and because I could probably talk about this for an hour, my plan is to quickly run you through the presentation and then, as questions come up, come back to those points of interest to you. If I'm going too quickly, please consider the questions and we can come back to any of this.

● (0850)

I'll direct your attention to the first picture in front of you. This is the current state of the slide, and I'll explain a bit more about it.

First, for those of you who aren't familiar with the situation, the picture on the left side is from the summer. In an effort to show you what the site looked like before and after the slide, the red dotted line indicates the area where the landslide occurred. The submerged debris is causing conditions at higher flow rates that are preventing natural fish passage.

This is a very busy slide, but it speaks to three major time frames: the summer period, when an incident command post was set up; the fall, when the contract was awarded to Peter Kiewit; and the winter key points, when equipment was mobilized to the site and the groundbreaking on January 14. There's a lot of detail in there, but we can come back to it as you ask questions about what's been going on.

This essentially shows a bird’s-eye view of the site again. It's at very low water conditions, so it's in the winter. We can see a lot of the rocks. I want to point out a couple of key features, because crews are making steady progress.

If you look at number one, the Razorback, a road has been built to the site. It's incredibly remote. One of the major difficulties was getting equipment access, so a road was cut through an area called the Razorback, and you can see it there as number two. It's in place now.

You can see, in number four, the in-channel access and debris, showing the rockfall and where the obstruction occurs. This is a highly unstable location. There's been a need to install rockfall protection mesh. This is a major and significant job, and takes considerable time.

If you look at number five, the East Toe, this area on the river is currently being blasted to create more width for the water.

Finally, I'd like to point out the high line, for those of you who are into daring deeds. Because of the high winds and difficulty getting into the area, the company has installed a wire to transport equipment and people across. It's pretty exciting.

This is just to give you a sense of where we are now. The water is very low. Some blasting has been done—and here's a nice picture of it—and the result of that is the East Toe being clipped off. Since then, there's been another blast. Those three major boulders are in there, as well. I think the last one has been blasted apart. The idea is to remove rock to improve flow conditions to allow for natural fish passage.

Next we have a team of experts doing hydrological analyses of the area. This is a picture of a model that essentially demonstrates that even if Kiewit is able to do everything we've asked of them, under the current situation we don't believe that fish will be able to pass. This shows what happens when the water flows up high. You're going to have impeded fish passage.

The last thing I want to talk to you about very quickly is our contingency plan.

We are exploring a number of ideas to put into place. One is to create a natural-like fish passageway. We're looking at a fish pump system. Then we will be undertaking enhancement and continuous monitoring to evaluate the situation. Of course there are risks and uncertainties that we can talk about, but I'll leave it at that for now.

● (0855)

The Chair: Thank you, Ms. Reid.

Now we'll go to questioning. Hopefully, anything you didn't get a chance to highlight will come out in the questioning.

First, for six minutes, we'll go to the Conservative Party and Mr. Arnold.

Mr. Mel Arnold (North Okanagan—Shuswap, CPC): Thank you, Mr. Chair.

I may share part of my time with other colleagues here, but I will try to get through some questions fairly quickly.

Thank you, all, for being here today, by the way. This is extremely important for the salmon and the people who rely on them all through British Columbia, not just on the Fraser. There are many communities that rely on those salmon up and down the coast.

Ms. Reid, I'll get right down to brass tacks. You made a comment in your opening that it made a bad situation worse. How bad was the situation before the Big Bar slide?

Ms. Rebecca Reid: In 2009 the department was facing a very serious situation as it related to the return to the Fraser of sockeye. We had predicted a run that simply did not materialize. Where we had expected between two and four million fish to return, in the end, less than 600,000 of those fish returned.

At the same time we have a number of chinook species that are at risk, and we have very significant concerns for steelhead in the area as well. Just to explain, not all those fish have to cross the Big Bar area. Some of them do turn off before, so it's important to distinguish between the fish that must pass and the fish that don't have to.

We did have at least one very healthy stock of abundant fish that mercifully turned naturally off before the Big Bar slide. In any series of populations of salmon, you're going to have a mix of healthy and abundant, and less abundant.

Mr. Mel Arnold: You have to manage for the least abundant in fisheries openings and....

Ms. Rebecca Reid: We have to certainly take into account the stocks that are returning at the time. Because they come back at different times and we have a good idea of the returns and their timing, we're able to understand, through historical information and through testing and genetic information, what stocks are in the area at what times.

Mr. Mel Arnold: Thank you.

You also mentioned the expedited competitive bidding process that opened up in November. How open was that, how many companies participated and how open for viewing was the information to companies?

● (0900)

Ms. Rebecca Reid: I'll just ask Jen to respond to that question.

Ms. Jen O'Donoughue (Assistant Deputy Minister and Chief Financial Officer, Department of Fisheries and Oceans): Thank you very much.

It was an expedited process, but we managed to keep the process as open as possible. We started with a request for information and had 38 respondents. They submitted information. Not all of those respondents submitted full proposals. Some just indicated the skills they could provide.

Based on that, we did an evaluation of the 38, and we did what we would call a targeted tender to five of those proposals. What we did see was a lot of the different proposals. They put their names on the Buyandsell.gc.ca website and ended up joining some of the other bidders as they went through the process.

In the end we did have five people participate in the structured tender process.

Mr. Mel Arnold: Thank you.

Ms. Reid, you mentioned that there is a possibility or even a probability that full fish passage may not be possible even after the work that is being conducted right now, and you mentioned the possibility of an alternative fish passage.

On the construction of an alternative fish passage, how much vertical variance is there in the river at that location? What are the elevations and so on? How much of this could end up being taken out, should we have a flood situation down the Fraser?

Ms. Rebecca Reid: Last summer when we discovered the rock slide, there was about a five-metre drop, so that was what the fish were experiencing at the time. Since Kiewit has been in there blowing up rocks, we will have to see what it looks like at high water conditions. It should be better, so we're going to have to evaluate that.

Right now it's extremely low water, so you don't have that drop. The velocity is much lower.

Mr. Mel Arnold: There must be some predictions as to an extreme flood level situation on the Fraser. Is the work and the bench that's being built above those levels, or would it be at risk of being washed away should we have an extreme flood situation?

Ms. Rebecca Reid: That's an excellent question. It really comes to our contingency planning.

We can anticipate certain hydrology in the area, and we can see when we can expect fish to pass and when they are unable to. The question really is this: What is the velocity going to be like in the river, based on the work that's done, and are the mitigation measures—

Mr. Mel Arnold: To go back to my question, is the platform in the work area that's being constructed right now at risk of being under flood water should we have an extreme flood situation?

Ms. Rebecca Reid: The answer is that the contingencies we've built anticipate their becoming under water as time progresses. We have a series of contingencies that anticipate rising water. The first one is that we intend to create a fishway, which we expect will be flooded.

Mr. Mel Arnold: With only 15 seconds left to go, I will pass. I'm sure my colleagues will have further questions.

Thank you.

The Chair: We will now go to Mr. Hardie for six minutes or less.

Mr. Ken Hardie (Fleetwood—Port Kells, Lib.): Thank you, Mr. Chair, and good morning.

How did we find out about this slide? It appears to be in a very remote location. How far away is the nearest settlement or community of any size?

Ms. Rebecca Reid: Lillooet is about 60 kilometres from this site. We were informed by a river rafter who was on the river and noticed the slide.

Mr. Ken Hardie: Got it. Was that in June?

Ms. Rebecca Reid: That was in June. That's right.

Mr. Ken Hardie: Describe the first response and the timeline you laid out. I would imagine the timing of the fish runs factored into your calculation of what needed to be done by when.

Ms. Rebecca Reid: That's correct. As soon as we heard about the incident, we set up this incident command post and immediately started taking action. The response we were able to do was to start to secure the site and make sure it was safe. We started to look into fish transport opportunities. We also started to try to design a natural fishway to improve the passage of fish in the area. It was a multipronged response over the summer period.

● (0905)

Mr. Ken Hardie: How many runs were affected by the slide before you even got to it?

Ms. Rebecca Reid: Some of the early Chinook runs would have been impacted so we would expect they would be coming through in May.

Mr. Ken Hardie: Is that going up or down river?

Ms. Rebecca Reid: It's heading back to their natal streams.

Mr. Ken Hardie: Okay. Got it.

With respect to the water flow, if you look at the situation now after some of the work that has already been done, what do you see is the difference between what the fish can handle as far as water flow is concerned and what they are presented with at this moment?

Ms. Rebecca Reid: This picture shows you the expected water flows. Those lines represent the fish and at what level they are able to pass. What we need to do is to get the water flow below those levels in order to accomplish fish passage. If we can't get the water flows below that level, then we need to put in the contingency plans, the natural fish passage and other means to support and help the fish move across the slide safely.

Mr. Ken Hardie: When the spring runoff takes place—it should be under way now—how does that affect the water flow through that location?

Ms. Rebecca Reid: It will have a significant impact on the water flow. You're going to get a very flashy situation. There are a couple of different ways to show you what it would look like, but unless we could put some kind of mitigation contingency measures in place, we don't believe the fish will be able to pass at the high water levels.

Mr. Ken Hardie: Is that for any of the runs?

Ms. Rebecca Reid: We will have to see how successful the rock removal is, but we believe, based on modelling, that the fish will still have trouble passing.

Mr. Ken Hardie: How difficult was it to access the site right down to the side of the river?

Ms. Rebecca Reid: It was extremely difficult. It took massive equipment. It took incredible effort to build a road down the side of a very steep cliff in a very remote area. Actually, the work they have done is an incredible feat of engineering.

Mr. Ken Hardie: How long is that road?

Ms. Rebecca Reid: How long is it?

Mr. Andrew Thomson (Regional Director, Fisheries Management, Department of Fisheries and Oceans): It's probably one kilometre approximately, maybe a bit less.

Mr. Ken Hardie: It's one kilometre. It would appear that the rock face there is very sheer. It's almost straight down into the water.

Ms. Rebecca Reid: Yes. This picture was taken last week. You can see the road that goes right down to the bottom now. You can see how incredibly steep it is.

Mr. Ken Hardie: Can you describe the size of the rock face that gave away? Somebody was saying that it was equivalent to a multistorey building.

Ms. Rebecca Reid: That's right. If you think about the towers on the Lions Gate Bridge, essentially the rock that fell into the river was the size of the Lions Gate Bridge.

Mr. Ken Hardie: Did all of that rock basically break up and stay in that location, or did some of it wash down?

Ms. Rebecca Reid: That's why we did some modelling, which I can show you.

This is from a company that used LIDAR to do gasometric analysis of the river. This is actually a model of what it will look like after Kiewit does all the work and removes all the rock.

You can see the colours that relate to water velocity. The rock went so far out that it hasn't been reached yet by Kiewit's blasting, so it's still going to create a barrier, as indicated. That's based on our best knowledge right now of where the rock is and our ability to remove it.

Mr. Ken Hardie: Are you going to continue to try to remove the rock?

Ms. Rebecca Reid: Absolutely. The work is under way now and will continue until freshet actually arrives, at which point the equipment will have to be removed as the water levels go up. We have work to do over the summer to help fish pass, and there are a number of ways we're thinking about doing that. We're also considering the work that will have to happen in the winter to continue the rock removal.

The Chair: Mr. Hardie, your time is up.

Madame Gill, you have six minutes or less.

● (0910)

[*Translation*]

Mrs. Marilène Gill (Manicouagan, BQ): I'm going to give my time to Gord Johns, since this is an issue that concerns British Columbia.

[*English*]

Mr. Gord Johns (Courtenay—Alberni, NDP): You cited that the significant challenge this year has been dealing with the low returns coming before Big Bar. I want to talk a bit about the root causes. The Big Bar issue comes on top of circumstances where middle and upper Fraser salmon populations have been declining to the point where their stocks are a major concern, and you've highlighted that.

Does DFO have the resources or capacity to address the Big Bar slide within your normal budget allocation?

Ms. Rebecca Reid: No, we don't.

Mr. Gord Johns: What has the minister indicated in terms of support for this, if you don't have that?

Ms. Rebecca Reid: Is this a money question you're asking about? Perhaps I'll turn to Jen.

Ms. Jen O'Donoughue: We continue to estimate the amount of money that it will take to respond to this issue. We have support from our minister to do that. We have funding to continue the work until May, and we're currently reassessing what work needs to happen post-May.

Mr. Gord Johns: This is coming over and above the budget, okay.

We've been hearing from community members from my riding up and down the coast that there is a requirement for significant and ongoing new resources to address the salmon conservation problem, and the corresponding effect on the ecosystem, economy and workers of Canada. Simply put, a temporary infusion of new money will not adequately address the problem.

What can we do, as a committee, to ensure that DFO gets a permanent addition of significant resources, so that your department and your respective partners can address the root causes of these conservation problems?

Ms. Rebecca Reid: It's important to address this particular crisis. We are doing everything we can to put measures in place to resolve this particular issue.

As you point out, there are broader issues out there. To name a few, the conditions in the ocean are such that we have very highly unpredictable productivity for the fish, so sometimes they do well and sometimes they don't. The areas we can control are the freshwater habitats. That is an area of focus we should look at, so when the ocean conditions allow for those fish to be productive and to come back in numbers, the freshwater environment will be available for them to survive.

Mr. Gord Johns: We're hearing that for restoration, the money is not flowing. We're not seeing it in our communities for what's needed. You're working with a small amount of money. The government has made announcements, but maybe you can speak to the need. We've had the first round of the BCSRIF money and then the second round, and still many organizations aren't seeing the funding. We have hundreds of volunteers and they're not getting the resources to get the work done.

Ms. Rebecca Reid: There have been a number of investments in the past few years, which have been very helpful. The coastal restoration fund is a source of restoration money. BCSRIF, as you point out, is another excellent source. We receive funding not for restoration but for assessment under the Pacific Salmon Treaty as well, so that's $15 million a year. There has been an infusion of money. We need to make sure we use the money wisely and we put it where it's most needed. BCSRIF is helping us with that. Some of the projects we've funded help to direct money to areas most in need. I think being strategic and being smart about how we use the money is important. It's also important to work with the Province of B.C., which cares about this a lot, and with local nations and stakeholders.

Mr. Gord Johns: In December, the First Nations Leadership Council, supported by the AFN, wanted this to be declared a state of emergency. They're calling for an emergency package like the one the NDP has been calling for. We're hoping the government is going to look at that.

Do you have any plans or initiatives in terms of a relief package for the workers who have been affected by the low salmon returns? I know they've been calling for extended EI, but there's nothing. They're waiting. The August 20 date was late, as you know, and pretty much decimated the commercial fishing season. Are there any plans to help provide relief to those fishers who are affected?

Ms. Rebecca Reid: Aside from the regular types of relief that are available to fishermen, we don't have anything in addition to that.

I wonder, Andrew, if you want to speak to that at all.

Mr. Andrew Thomson: We do have a few programs in place, Mr. Johns, for a buyback of licences to provide some support for, particularly, trollers, should they choose to exit the fishery, to have some support for that. In terms of—

● (0915)

Mr. Gord Johns: I'm pretty sure that's exhausted right now at this point. You're not seeing much uptake of that, in essence.

Mr. Andrew Thomson: Not to be confrontational, but we've actually seen quite a bit of uptake in terms of the number of applications to us.

Mr. Gord Johns: That's since August, I imagine.

Mr. Andrew Thomson: Yes.

Mr. Gord Johns: The Pacific Salmon Treaty money is still sitting there. What's the plan for that money to help relief? You know the area G trollers have been waiting for that.

Mr. Andrew Thomson: We're still using it in the last two rounds of the buyback program. Applications have been coming in these last few months for it. Then we have started having discussions with area G and others as to how to expend any remaining funds at the end of this fiscal year.

Mr. Gord Johns: Okay.

Mr. Chair, I think I'm running out of her time. Do I have my six minutes coming up?

The Chair: You can just keep going, sir. I'll tell you when you're out of time.

Mr. Gord Johns: Okay. Thank you.

Climate change is going to have serious and significant impacts not just on salmon returns but across all aspects of DFO's mandate. What has DFO learned from this, and will this inform future emergencies such as this and others likely to come with the impacts of climate change?

Ms. Rebecca Reid: There's a lot to learn about the changing ocean conditions and weather conditions that we're facing. From a DFO perspective, what we need to do is to make sure we have the science in place to forecast as best we can and to look for those anomalies, and be responsive to those anomalies as they occur. Through planning, through other methods, being proactive and looking forward is important as we learn to deal with a period of high uncertainty.

Mr. Gord Johns: I'm going to go to the site. Is it possible to have the camera set up so that regular people can watch and see the progress that's been done?

Ms. Rebecca Reid: We do have an issue around setting up cameras. Whether we have the infrastructure in place would be a question, but what we do have is very regular information bulletins that come out with pictures and with videos. On one of the slides—I just flashed by it really fast—I wanted to show you the sites, the websites, where you can access regular up-to-date information. Over the summer, this site was updated almost daily. Right now it's weekly, but we're planning to do it more frequently.

Mr. Gord Johns: Since the cameras are there, is there any way to just make it live so people can—

Ms. Rebecca Reid: Mostly it's drones and people with cameras. I don't believe we have a camera that's just fixed in place.

Mr. Gord Johns: Okay. It's my understanding that there is a camera there. If there is, can the department make it available to the public to view?

Ms. Rebecca Reid: That's something I'd have to inquire about. I didn't know there was a fixed camera.

Mr. Gord Johns: Okay.

Will remediation work be completed by March 31, the 2020 target date? Do you believe that—

Ms. Rebecca Reid: Do you mean complete rock removal?

Mr. Gord Johns: Yes.

Ms. Rebecca Reid: No. I showed you that model. The model essentially showed that we don't believe it will be completed by that date.

Mr. Gord Johns: Okay.

In terms of the timeline of events, I want to ask about the decisions that were made in the weeks following the discovery of the slide and the early response. My understanding is that there were people involved early on who believe that blasting could have been done safely in the June-to-July time frame, but instead of removing rock the focus was really limited to transporting the fish.

Can you explain why the decision was made not to use blasting in June and July?

Ms. Rebecca Reid: Absolutely. First of all, I have to say that this site is extremely unstable. There is rock falling constantly. Safety was a massive concern.

The other thing is that you can't blast and have fish at the same time. When the fish are passing, you are not able to blast. At that time, of course, there would have been fish in the river. It would have been extremely unsafe to undertake any kind of blasting activity. It's only now, during the winter, when there are no fish—we're monitoring daily to make sure there are no fish—that we are able to blast.

Mr. Gord Johns: Can you explain why the on-site work was paused from September to January—to my understanding, it basically came to a standstill—given the importance of salmon to our coastal communities and how significantly the slide has affected the salmon returns? Was the decision made by the minister to stop on-site work?

Ms. Rebecca Reid: There were two distinct phases in this work. We had the summer work, the highly urgent incident command system, which was in place until the end of September. It was demobilized after that, after the majority of the fish had passed.

We then went into a project phase. At that point, we started to get a sense of the success of the summer work. Our understanding of that success evolved over a few months, to the point where we realized that we had not been largely successful. We realized that we needed more help and that we didn't have the expertise in the department to undertake the massive work that was required. We initiated a process to seek expert advice outside of the department. It took some time to put the contracts in place. The effort was to find the right people, to seek advice, to talk to technical advisers, to reach out and to then undertake the competitive bidding process.

● (0920)

Mr. Gord Johns: Do you feel that lost a lot of time in terms of the efforts?

Ms. Rebecca Reid: The importance of planning can never be overstated. The summer work was extremely intense. It was impossible to plan for the winter over the summer period. We needed to take the time to plan properly so that we could do the work that was required.

Mr. Gord Johns: Was there emergency procurement authority revoked at any point?

Ms. Rebecca Reid: I'll ask Jen to speak about procurement.

Ms. Jen O'Donoughue: During the summer months, the department did invoke emergency procurement authorities for some of the work we were doing in that July to August time frame. Since then, as we've been doing our planning, we've been working within the PSPC procurement authorities.

Mr. Gord Johns: Just in terms of the site, what assurances do we have in terms of a future slide happening in the same place? Can you speak a little about the risk we're looking at in terms of the future?

Ms. Rebecca Reid: I had the opportunity to be on site, and I know that Mr. Beech was on site too. You just have to go there to see—

Mr. Gord Johns: I've been there.

Ms. Rebecca Reid: Okay, so you know how unstable it is. There are big cracks.

Mr. Gord Johns: Yes. In terms of engineering, what work is being done to help prevent future slides?

Ms. Rebecca Reid: I've asked that question. It isn't the focus of our work right now to stabilize the slopes—except in the slide area, which is being done from a safety perspective.

Mr. Gord Johns: Thank you.

The Chair: Mr. Johns, you only have five seconds left in your second six minutes, so we'll go back to the Conservative Party.

Mr. Fast, you have five minutes or less, please, when you're ready.

Hon. Ed Fast (Abbotsford, CPC): All right. Let's get to it.

First of all, last year, obviously, the fish couldn't get past the slide area. You took steps to try to help them, I understand. How many fish actually got past the slide area through DFO's efforts?

Mr. Andrew Thomson: In terms of what actually got past, we moved somewhere in the neighbourhood of 600,000 fish, as I recall. But the numbers....

Sorry, the number is 60,000. I was one zero off.

A voice: Zeros matter

Mr. Andrew Thomson: Yes, zeros matter—my apologies.

As Ms. Reid spoke to, we did an extensive period of monitoring in terms of tracking those fish and their success rate in reaching the spawning grounds. We learned over that research something very valuable. The energy expended by the fish to try to overcome the slide area, and the physical injuries that some of them took, resulted in very poor success rates of the fish actually reaching the spawning grounds.

Hon. Ed Fast: Let me get down to that. Are you suggesting that, of the 60,000, not all of them survived?

Mr. Andrew Thomson: Very few survived.

Hon. Ed Fast: Effectively, the run was cancelled last year. Is that right?

Mr. Andrew Thomson: Effectively, the survival rate to the spawning grounds was very low.

Hon. Ed Fast: I heard you say that you didn't start blasting earlier because of fish in the area. Is that right?

Ms. Rebecca Reid: That's correct.

Hon. Ed Fast: We lost them all anyway, so why didn't we blast, knowing full well we were going to run out of time this year to get that work done? If the justification for not blasting earlier, as Mr. Johns asked, was that there were fish in the area, we know that based on what you tried last year, very few of those fish even survived, the ones that got past. There were only 60,000.

Tell me why we wouldn't have done blasting at the time.

Ms. Rebecca Reid: I can't imagine a scenario in which we have fish in the water trying to migrate and we're blowing up rock right beside them. To me it is inconceivable that we would kill the fish by blasting. I think we tried a number of ways—

Hon. Ed Fast: They died anyway. Isn't that right?

Ms. Rebecca Reid: We tried a number of ways to protect those fish by transporting them, by supporting them. We were unsuccessful but we made some very significant efforts to save those fish.

Hon. Ed Fast: You said the blasting will not be complete by March 31. Is that right?

Ms. Rebecca Reid: That's correct.

Hon. Ed Fast: That's not because you're running out of money, because you have money until May.

● (0925)

Ms. Rebecca Reid: That's right.

Hon. Ed Fast: We're still going to have a problem there.

Ms. Rebecca Reid: That's right.

Hon. Ed Fast: There will be incomplete work.

Ms. Rebecca Reid: Yes, and that's why—and I went through this extremely quickly—there are a number of contingency measures we are contemplating to support the fish that are obstructed at high water.

Hon. Ed Fast: I was just going to ask you to tell me about those contingency measures, but I believe Mr. Calkins is going to ask you about that.

Thanks for letting me know that.

Why is a river of such importance not being regularly monitored? We have drones available to do this. This is the most important salmon river, arguably, in the country.

Ms. Rebecca Reid: I think it's an important conversation to have. This is an incredibly remote area. It's taken us months to build a road to get down there. Technology exists now, presumably. For drones and for other things there are safety issues. People have asked whether we should be monitoring the entire river, and I think that's something that needs further discussion.

Hon. Ed Fast: Could you please take that back? I think it's a reasonable suggestion to make that we monitor at least this particular river, and there are others as well. By the way, I'm not blaming you for this. This slide simply drives home the point that perhaps we've missed an opportunity to do better.

Ms. Rebecca Reid: We do anticipate other slides in the future.

Hon. Ed Fast: All right.

Let me just talk about the costs. You have enough funding until the end of May. Is that correct?

Ms. Jen O'Donoughue: That's based on our estimates, on what we know today.

Hon. Ed Fast: That's based on your estimates. Is this a one-time expense, effectively, or do you believe there are ongoing costs that DFO will be incurring as a result of this slide?

Ms. Jen O'Donoughue: In terms of rock removal, it would be a one-time expense until the rock is removed. We're continuing to monitor. One of the complex things about this is that, as water levels change and as the vendor continues to blow up rock, we learn more and more about the slide in the river and we get more information as we go through so that we continue to adjust our estimates.

The Chair: Thank you, Mr. Fast.

Hon. Ed Fast: Is that it?

The Chair: You've gone a little bit over time, actually.

Now we go to the Liberal side.

Mr. Weiler, go ahead for five minutes or less, please.

Mr. Patrick Weiler (West Vancouver—Sunshine Coast—Sea to Sky Country, Lib.): Thank you, Mr. Chair.

Do you think that everything possible has been done to respond to this issue?

Ms. Rebecca Reid: I think we have done everything we can think of and we have asked every expert we can find.

Mr. Patrick Weiler: To your knowledge, has DFO faced an issue like the one with the Big Bar slide before?

Ms. Rebecca Reid: The closest example I could give you is the Hell's Gate slide of 1914.

Mr. Patrick Weiler: How does this slide compare with the Hell's Gate slide of 1914?

Ms. Rebecca Reid: It's similar in scope and scale. Of course, the Hell's Gate slide was different. They were aware of the slide immediately. For us, it took some time to discover it. In that case there was significant ongoing infrastructure required to ensure fish passage at that location.

Mr. Patrick Weiler: Could you speak a little to the ongoing effect that the Hell's Gate slide has had on Fraser salmon populations?

Ms. Rebecca Reid: The Hell's Gate slide resulted in a couple of years of almost complete obstruction of fish passage—three years—and has had a long term, everlasting impact on the successive years of those salmon, so you can still feel the effects of that slide.

Mr. Patrick Weiler: What types of restoration efforts are now under way to rebuild some of the affected stocks in the Fraser River?

Ms. Rebecca Reid: We have a number of management measures to protect returning stocks that Andy can talk about. We also have a salmonid enhancement program that has been in place for over 40 years. It has a hatchery component, a restoration component and a community involvement component. We have also undertaken a lot of restoration work throughout the years to support the habitat that the salmon need.

Mr. Patrick Weiler: Are these restoration efforts geared directly at the Fraser River or more generally throughout the province?

Ms. Rebecca Reid: We have restoration activities that go on throughout British Columbia and the Yukon, which is my area of responsibility. Certainly, there is a lot of focus on the Fraser because of its incredible importance, but it's not just the Fraser.

● (0930)

Mr. Patrick Weiler: I was hoping that you could speak a bit about the tripartite arrangement with the province and the Secwepemc Nation and about the various roles and responsibilities of each party.

Ms. Rebecca Reid: When we discovered the slide, the first thing we did was convene a discussion with the Province of B.C. and first nations leadership. Based on that, we developed this unified command post. We had first nation government representatives, B.C., DFO and Coast Guard sharing decision-making at the incident—daily operational decisions.

As well, we had a first nations leadership group that we met and consulted with regularly that provided advice and shared information. There has been an ongoing role for the local first nations—the High Bar First Nation and the Stswecem'c Xgat'tem First Nation—as well as continuing communication and outreach to first nations who have an interest in the area. I should say that, of course, there are a lot of nations that have a very high interest because Fraser salmon is very important to many, many nations.

Mr. Patrick Weiler: How much of the remedial work right now is being funded by the federal government?

Ms. Rebecca Reid: We have a cost-sharing arrangement with British Columbia, and we have a sixty-forty split, depending on the nature of the work. It's not exactly sixty-forty—it depends on what activity is going on—but that's the arrangement that we have.

Mr. Patrick Weiler: Is that arrangement split for all work or for specific types of work?

Ms. Rebecca Reid: With each different item, there is a decision about who leads—federal or provincial—and it depends on the nature of the work. Rock and water is a provincial lead. Fish is a federal lead. Overall, it works out to about a sixty-forty split, depending on the activities going on.

Mr. Patrick Weiler: With regard to the type of work that's being done now, what is the anticipated date that the work will need to be completed by before the water levels will be too high?

Ms. Rebecca Reid: We're expecting a freshet sometime in April, and a lot of the work that's under way right now we expect will be under water. By then, we want to have a natural fishway in place and have the infrastructure that we need in place for other contingency measures—for example, a fish pump and a way to trap and transport if necessary.

The Chair: Thank you, Mr. Weiler. Your time is up.

We'll now go to the Conservative Party.

Mr. Calkins, please, you have five minutes or less.

Mr. Blaine Calkins (Red Deer—Lacombe, CPC): Thank you, Mr. Chair.

I'll just get right to it. You basically told us today that plan A is not going to be as good as you had hoped it was going to be. Am I correct in saying that? Plan A is to remove the rock and blast so that we can restore the river back to as close to an original fish passage as possible.

Ms. Rebecca Reid: That's correct. Plan A will be extended to the winter.

Mr. Blaine Calkins: Just for clarification, on your timeline here it says that 140,000 fish in September got past the slide. Is that correct?

Ms. Rebecca Reid: We transported 60,000, but some actually did manage to pass themselves.

Mr. Blaine Calkins: That was my question. Out of the 140,000, 60,000 were what you moved, and another 80,000—

Ms. Rebecca Reid: They swam.

Mr. Blaine Calkins: That would be for all species. It's not indicative of one particular species.

Mr. Andrew Thomson: It was mostly coho at that point.

Mr. Blaine Calkins: Mostly coho got by, so the chinook and the sockeye were basically....

A voice: Wiped out.

Mr. Andrew Thomson: The chinook and sockeye migrate earlier, so they were there at a time when the flows were higher.

Mr. Blaine Calkins: Okay. That's good to know. The coho population, we expect.... Actually, it is not suffering nearly as badly as the other species. Is that right?

Mr. Andrew Thomson: The interior Fraser coho population has been in some difficulty for a period of time, regardless of the slide.

Mr. Blaine Calkins: Right.

So, genetics.... If you catch a fish below the slide, do you know what river or stream it should actually be going to?

Ms. Rebecca Reid: Yes.

Mr. Blaine Calkins: You'll be able to take those fish, use them as hatchery spawners and then imprint them in the correct stream. Is that correct?

Ms. Rebecca Reid: As I'm sure you know, salmon are extremely specialized in where they live and survive. Fish are adapted to where they were born. As we pick up fish for enhancement, we want to make sure we can take them back to their natal stream—their home stream.

Mr. Blaine Calkins: I understand. If you know the genetics and you know what stream it is, when you catch a fish below the dam because it can't get past, you should be able to know where it should be imprinted if it was used for brood stock. Is that correct?

Ms. Rebecca Reid: Yes, we would be able to.

Mr. Blaine Calkins: What's the current status of the mothballed hatcheries that were on the upper Fraser? Have those been stood up?

● (0935)

Ms. Rebecca Reid: Are you talking about Quesnel?

Mr. Blaine Calkins: There is Quesnel. There's Eagle River and Dome Creek. I don't even know the list of those that would be community-based hatcheries that might be mothballed.

What's the status?

Ms. Rebecca Reid: We are developing enhancement plans and looking at all available capacity, including Quesnel. I don't believe Dome Creek has the water available at this point to be able to use it effectively. We are looking far and wide because we do think enhancement is going to be an important part of our strategy this year. We need to create room for those fish.

Mr. Blaine Calkins: Is there any type of mobile or temporary hatchery capability?

Ms. Rebecca Reid: We have some strategic enhancement sites. For example, we took some of the fish to Cultus Lake last year and held them there. There's some capacity there, but not a lot. That's why we're looking across all our hatchery facilities to see what space is available.

Mr. Blaine Calkins: When you say “all our hatchery facilities”, are you talking about those that are currently owned or managed by DFO or assisted by DFO, or even those that are private sector?

Ms. Rebecca Reid: We're looking at DFO's facilities.

Mr. Blaine Calkins: Does DFO have the capacity at its facilities to do the job?

Ms. Rebecca Reid: I believe that we're going to have to make some decisions around production to make space for those fish.

Mr. Blaine Calkins: I believe Capilano was supposed to undergo renovations. Is that going to proceed now? Are any of the renovations for all the various hatcheries that I visited over the last couple of years put on hold now indefinitely until this is dealt with?

Ms. Rebecca Reid: Nothing's been put on hold.

Mr. Blaine Calkins: I see the other options you have there, including another attempt at capture and transport. Given the fact that it's been proven to be relatively ineffective, why would that still be in your list of things to try to do?

Ms. Rebecca Reid: We're proposing a series of measures—a kind of cascading series. The first thing we want to do is allow for natural fish passage. Because we think that will be unsuccessful at high water, the next thing we want to do is create a natural fishway by placing rocks and those types of things to allow the fish to swim themselves with some assistance. The next strategy we're considering is some kind of a fish pump, which is like placing a structure on a platform and literally moving the fish across the slide through tubes. Our last option would be truck and transport. As you said, it's the least preferable option.

We are stepping through our contingencies and hoping each one will be enough, but if it's not or if it's unsuccessful we have another strategy in place.

Mr. Blaine Calkins: What would be a reasonable timeline to build a fish ladder? It seems to me that would not be something we would be able to do in this construction cycle.

Ms. Rebecca Reid: We do intend to create a fish ladder. We've looked at various designs and rather than using an engineered one, we're going to try to create one out of the rock. We're creating a bed and placing boulders to create a natural fishway structure. That's the plan for right now.

The Chair: Thank you, Mr. Calkins, your time has gone over.

We'll now go to the Liberal side.

Mr. Morrissey, you have five minutes or less, please.

Mr. Robert Morrissey (Egmont, Lib.): I believe Mr. Hardie was willing to....

The Chair: Okay, we'll switch to Mr. Hardie for five minutes or less.

Mr. Ken Hardie: Thank you, Mr. Morrissey, and thank you, Mr. Chair.

As I recall, our runs tend to vary in size according to four-year cycles. What are we predicting for this year's run? What's staring at us in terms of getting something in place to preserve these stocks?

Mr. Andrew Thomson: I don't have the predictor for what this year's.... I'm assuming you're talking about Fraser sockeye in particular.

Mr. Ken Hardie: Yes, and I'm talking about chinook.

Mr. Andrew Thomson: Okay, I can speak to the other species particularly.

We don't expect a very high return on Fraser chinook for the interior Fraser populations because it's in the same low productivity zone. It is similar to interior Fraser coho. The p50 or 50% mark we're expecting for Fraser sockeye is around 900,000 fish. Pinks would be a low-run year. We don't expect a lot of pinks this coming year.

It's certainly not expected to be a big year for fisheries. There may be some sockeye TAC available.

Mr. Ken Hardie: A lot of people are going to be interested, then, in openings, based on the low runs that were expected anyway.

On this issue, can you send a signal right now to the sports fishers, the commercial fishers, about the expected openings this year?

Mr. Andrew Thomson: We're having significant conversations with recreational, commercial and of course indigenous governments around the openings, in planning for the upcoming fishing season.

Part of the challenge is trying to assess the actions that were taken in 2019 in terms of how those fishery closures that we put in place in 2019—which were more significant than we have had in the past—resulted in the protections that we planned for, for the stocks returning.

As we receive that information through coded wire tagging and DNA results we are adjusting and consulting on potential fishery plans for this year, which may include similar levels of closures for recreational sectors or different ways of doing things for recreational and commercial sectors. But we need to have some of that information and we also need to have the value of the consultative process around the fishing plans.

● (0940)

Mr. Ken Hardie: Is it possible that this incident and its impact on the runs largely negated the benefits of the closures that were put in place earlier in the year?

Mr. Andrew Thomson: It depends on which section of the runs you're talking about.

We saw a significant run of what we call Thompson 4_1 chinook return to the river. That population ended up being a significant source of food, social and ceremonial fish for the Fraser first nations. It also provides some opportunities for other fisheries as well. It becomes a very complex picture because we're dealing with multiple species and multiple stocks. In some cases the actions taken certainly supported the priority of FSC harvests over commercial and recreational.

Mr. Ken Hardie: Talk a little about the work with the first nations people in the area. First of all, have they been engaged in the actual work taking place: road building, rock blasting, etc.?

Ms. Rebecca Reid: Yes, they have. The company called Splitrock is a first nations company that does all the monitoring going on right now. In addition, Kiewit has subcontracted with local first nations to undertake some of the work that's going on.

Mr. Ken Hardie: First of all, is the ultimate goal to return that section of the river to its preslide state, and if so, how long do you think that's going to take?

Ms. Rebecca Reid: That's a great question.

That is our goal, yes. We don't know exactly how long it will take. Our experience has shown it can take three years. In some cases you have to create some kind of an artificial passage to support fish. We're hoping to return the river to its natural state, and we're going to have to adapt and evaluate as we go.

The Chair: Thank you.

I believe Ms. Gill is giving her two and a half minutes to Mr. Johns again, so he'll have a total of five minutes.

When you're ready, Mr. Johns.

Mr. Gord Johns: Thank you.

My biggest concern right now is the contingency piece that you're going to do in a step process. You already know you're not going to be able to make it in terms of flows, based on the blasting proposal.

Is it cost? Is that what's delaying your starting to already focus on contingencies one and two?

Ms. Rebecca Reid: No. Just to be clear, we are focusing on doing everything we can to put those contingencies in place right now. What's required right now is to create a berm, a pad, a place for the equipment to go, and to blast rock at the same time.

As the rock is being blasted they're creating the places for the equipment to be installed.

Mr. Gord Johns: The fishway will be in place when it's—

Ms. Rebecca Reid: That is the plan, yes.

Mr. Gord Johns: Okay.

The other question I have is around the hazing. Can you talk abut the stress and how to keep the fish away while you're blasting? Can you talk about what that looks like in terms of the impact that's going to have on those stocks?

Ms. Rebecca Reid: There are no fish in the area right now. We have a monitor in place and we haven't seen any fish.

Mr. Gord Johns: Okay.

You talked about working with first nations. They wanted the government to declare it a state of emergency. We've heard them ask for an emergency package as well, which is the same thing the NDP has been calling for.

Can you talk a little about their emergency request?

Ms. Rebecca Reid: First nations have indicated their very strong concern about food security. They speak to this particular issue but to other issues around floods and fire that have impacted the terrestrial food as well, so it is a very significant concern for them.

In addition to that they've spoken about the economic impact of the low returns of sockeye and chinook. Those are the concerns they've identified from a food and economic perspective.

Mr. Gord Johns: Clearly, with the numbers that we were going to see pre-Big Bar, we're going to have the lowest return in recorded history in the world's largest salmon-producing river. Given that, clearly there are not enough resources being distributed for restoration, habitat protection and climate adaptation. Is there a number you can give us that would bring us up to what is needed, or is it internal and you can't communicate that?

● (0945)

Ms. Rebecca Reid: I don't have a number.

I don't know, Jen, if you want to comment.

Ms. Jen O'Donoughue: I think we're still assessing it. We don't have a number at this point in time.

Mr. Gord Johns: In hearing from organizations on the coast, they're looking for $500 million just in restoration alone over the next five years. On the $142 million from the BCSRIF, can you talk a bit about how much of that is rolled out in rounds one and two?

Ms. Rebecca Reid: Yes. The BCSRIF has $142 million dedicated to it. We have spent $55 million so far for approved projects. When the next batch of projects goes through, that will be about $13 million more, so we have some money remaining from the original $142 million.

Mr. Gord Johns: H ave you been instructed by the minister to spend it right now, the $142 million that's built in, to get it out the door because there is this emergency when it comes to our salmon? It's a crisis that's clearly in place right now.

Ms. Rebecca Reid: The BCSRIF is proposal driven. We accept proposals, evaluate them and pick the best ones. We're not restricted—

Mr. Gord Johns: There's a number of good projects that are getting rejected, though, right now.

Ms. Rebecca Reid: That's true, but I think it's because when we're looking at proposals we want to make best use of the money, so we're picking the ones that we think best accomplish the objectives that have been set for the program.

Mr. Gord Johns: Can you explain why you wouldn't spend the money right now given that there are a lot of good projects getting turned away?

Ms. Rebecca Reid: We have an evaluation process with B.C. We're working with B.C. on it and we are looking at what the projects are. There is a capacity issue, I think. We need to evaluate each of the proposals, work with the proponents and undertake the agreement. It's just a matter of making sure that we pick the right projects and get them in place.

Mr. Gord Johns: Is it mainly because they want to spread it out over five years? Is that the idea?

Ms. Rebecca Reid: We haven't been directed to hold back any amount, but it really is about picking the best projects going forward.

Mr. Gord Johns: Okay. Thank you.

The Chair: Your time is up, Mr. Johns. Thank you.

We've completed the first and second rounds, so now we'll just keep repeating the second round until we run out of time, I guess. We'll go now to the Conservative Party for five minutes or less.

Mr. Arnold, please.

Mr. Mel Arnold: Thank you, Mr. Chair. I'm glad we have a second round.

Ms. Reid, can you tell me what plans are in place to rebuild at least the one lost year that we already have and potentially more? These salmon are multi-year fish. That group will be coming back again in four to five years' time, depending on their particular stream type. What plans are in place to rebuild those stocks to historical levels?

Ms. Rebecca Reid: We have a sort of three-pronged plan in place. The first one is to create conditions for those fish to pass naturally so that we get as many fish back as we can—

Mr. Mel Arnold: No. For the one year that has been lost completely, last year's stock, what are you doing to rebuild that stock?

Ms. Rebecca Reid: Part of our strategy is enhancement, so that is another part of it.

There are three things. One is having whatever fish are able to return and spawn naturally. The second is enhancement. The third is making sure that fisheries management tools are in place to allow as many of those fish to escape as possible, that is, to not have fisheries on those stocks that we have a concern on. We need to take those three elements into consideration.

Mr. Mel Arnold: What's being done on the enhancement part of it? Is it hatchery enhancement, stream work and so on?

Ms. Rebecca Reid: We're working on an enhancement plan for those fish. We have a couple of different scenarios in place. If the fish can't pass, we have a plan, but even if they can pass, we have some ideas about—

Mr. Mel Arnold: I want to go back to the ones that didn't get past last year. You're going to have to rebuild that subset. That returning group every four years is going to be in trouble. How long will it take until you can rebuild it?

● (0950)

Ms. Rebecca Reid: The fish that are lost are lost. As the next-year class comes through—

Mr. Mel Arnold: No, that particular subset that will come back every four or five years....

Ms. Rebecca Reid: That's what I'm trying to explain. For those fish that have been lost, that year-class has been lost, but as the next year-class comes through, you can have fish replaced. Fish can stray and move into areas where there are absences, so over time you can recover, somewhat, the fish that have been lost.

We did do enhancement last year. It wasn't very successful so our efforts would be to support the returns of fish to allow as strong a return as possible.

Mr. Mel Arnold: Are you looking at additional hatchery capacity to help rebuild that stock that's basically lost?

Ms. Rebecca Reid: Right now we're looking at what production space is available to increase enhancement.

Mr. Mel Arnold: Are you looking at increasing any production space?

Ms. Rebecca Reid: Are you talking about building new hatcheries?

Mr. Mel Arnold: I'm not necessarily looking at building new hatcheries. Are you aware that portable hatcheries exist?

Ms. Rebecca Reid: We don't have any portable hatchery plans in place, no.

Mr. Mel Arnold: Are you aware that they exist?

Ms. Rebecca Reid: I'm not personally familiar with portable hatcheries.

Mr. Mel Arnold: I am. I saw one just a couple of weeks ago. They fit in a 20-foot shipping container, available for about $35,000 a piece. Apparently DFO is not interested in purchasing any. I'm just wondering if you know why.

To me it seems like a fit. They could be put on any particular stream.

Ms. Rebecca Reid: We have two technical teams, and one of them is focused entirely on enhancement. That's certainly a question we could take back to them.

Mr. Mel Arnold: Okay, I'd appreciate it if you could report back as to why portable hatcheries aren't being considered.

If there's any time remaining, I'll turn it over to Mr. Fast or Mr. Calkins.

The Chair: You have 40 seconds, whichever one of you is taking it.

Mr. Calkins.

Mr. Blaine Calkins: I'd like a quick clarification. Obviously, the salmon are having trouble moving up over the bar. There's no indication to think that salmon will have any trouble. For any of the smolts, the juveniles, there shouldn't be any issues coming downstream. Is that correct?

Ms. Rebecca Reid: That's correct.

Mr. Blaine Calkins: My other question is this. If you're going to build a permanent structure that has no ability to flex in where its upper or lower end is, can you give me some kind of indication of how a fishway on the west side of the slide, would work when you don't know what the...? You gave us a slide with a massive fluctuation in water levels. How would a structure work with no flexibility to change the upper end and the lower end? Can you tell me how that would be engineered and how that would work because I'm having a hard time wrapping my head around that?

Ms. Rebecca Reid: First of all, I'm not an engineer but, from what I understand, we anticipate at some point the natural fishway could become overcome by high waters and be less effective, so we don't anticipate its being effective during a very high water event.

Mr. Blaine Calkins: Aren't high water events the ones we're struggling with?

The Chair: Mr. Calkins, your time is way over. You've gone 30 seconds over.

Mr. Hardie, for five minutes or less, please.

Mr. Ken Hardie: First, we'll allow you to answer Mr. Calkins' question.

Ms. Rebecca Reid: This is why we're looking at other contingencies, for example, the fish pump, as another way. If the fish can't pass through the natural fish passway, we have another way of helping them move, the idea being that rock removal is the ultimate solution.

Mr. Ken Hardie: Did you say that it's really going to be about three years before you totally remediate the area?

Ms. Rebecca Reid: I don't know. We're hoping that next winter's work would be sufficient, but I don't know.

Mr. Ken Hardie: I want to talk a little again about the work that was actually under way. I heard a reference go by at some point in discussions—not here but in other places—of a 200-year flood event. Did that occur?

Ms. Rebecca Reid: Yes.

Mr. Ken Hardie: Talk about that. When and what was the impact?

Ms. Rebecca Reid: Last year there was some very high water in the river and it had a very significant impact on fish passage. At times it impeded our ability to do work in the area and it impeded fish passage significantly. It was a very unfortunate set of events last year.

Mr. Ken Hardie: Through the fall and winter, when you were building roads, drilling, blasting and hanging mesh, from the look of that location, with the wind tunnel effect and Lord knows whatever minus temperatures, that must have made for very uncomfortable working conditions.

Ms. Rebecca Reid: That's absolutely true. We did lose a number of helicopter days as a result of high winds.

● (0955)

Mr. Ken Hardie: Speak a little bit about the crews and some of the conditions that they had to deal with and how they dealt with them.

Ms. Rebecca Reid: There are a number of activities that had to take place. The most dangerous, I think, was the rock scaling that was going on. You had individuals literally hanging off the cliffs moving rock to stop it from falling on people below.

For the road construction there, you have rocks coming down and you have people building a road. The reason they spend a lot of time putting up rock mesh is for the protection of the workers. That has been a very important factor.

Mr. Ken Hardie: You had a skid-way in place to skid equipment down there. What size equipment were you winching down the cliff?

Ms. Rebecca Reid: There were massive excavators. They were winching excavators down the side of the cliff on a cable as one of their first attempts to move equipment down there.

Mr. Ken Hardie: Inevitably, when you have a situation like this, you make decisions and plans and you follow them through. Have you seen anything so far that made you say that, if the exact same thing happened again, we would do this differently?

Ms. Rebecca Reid: I think 20/20 hindsight is always a luxury.

Mr. Ken Hardie: Of course, but that's what we're here for.

Ms. Rebecca Reid: I think so. Every situation is different, but we certainly learned a lot from this experience and I'm sure we could do better.

Mr. Ken Hardie: Are there any particular areas?

Ms. Rebecca Reid: Some of the work in the summer in how we moved fish and some of the efforts to put things in place.... We did our best with the knowledge that we had. I don't know how we would redesign it.

Do you have a view, Andy?

Mr. Andrew Thomson: I think some of the monitoring as to the fish populations turned out to be quite critical. Having some of those programs in place and understanding the impact of the movement of fish would have been useful from the point of view of knowing how well or how successfully the helicopter moving was going.

Certainly, there are successes as well. The standing up of a tripartite group and the close partnership with B.C. and first nations in the area was a big win for us. It will benefit us going forward in terms of that close collaboration. It serves as a good groundwork for other unforeseen events that may occur.

The Chair: Thank you, Mr. Hardie.

Before I go back to the Conservative side, I want to remind members that the analysts are trying to note all the information. When we get anyone talking, especially up close to this end of the table, it's very annoying. I don't want to have to start calling out names, but I will if I have to.

We'll now move to the Conservative side with Mr. Fast for five minutes or less, please.

Hon. Ed Fast: Thank you, Mr. Chair.

I want to go to the report dated December 1.

You stated here earlier that there were 60,000 fish that were assisted past the slide, of which very few survived. A total of 140,000 went through, so that means another 80,000 went through naturally. Do you know how many of those 80,000 survived?

Mr. Andrew Thomson: I don't have the exact figures in front of me per stock. We know that the additional fish moved through at lower flow rates and got through on their own, but they still may have been stressed somewhat.

We looked, as we do each year, at the number of fish that reach the spawning grounds.

Hon. Ed Fast: Your report of December 1 was prepared by DFO. Is that correct?

● (1000)

Mr. Andrew Thomson: Yes.

Hon. Ed Fast: It says here that 30,000 fish per day were monitored passing unassisted through the slide. Were there 30,000 fish per day going past there? Is that a typo? Can you explain that?

It sounds like it's inconsistent with the testimony you gave earlier that a total of 60,000 were artificially assisted past the slide and 80,000 made it through naturally.

Ms. Rebecca Reid: That total upstream salmon passage past Big Bar at that time, according to the numbers I have, was about 275,000 Fraser salmon. Natural passage was 245,300 and transported was 60,000.

Hon. Ed Fast: I thought you said there was a total of 140,000 that actually made it past.

Ms. Rebecca Reid: Well—

Hon. Ed Fast: I'm really confused now.

Ms. Rebecca Reid: These are the numbers I have, and my apologies if I misspoke before.

Hon. Ed Fast: Okay, then, I'll ask you to get back to us with clarification. We want to know how many were assisted and how many went through naturally.

The other question is this: When did this slide actually occur? We know when someone noticed it, which was someone doing river rafting, but do we know exactly when that slide happened? I understand there's an indication that it could have been in 2018?

Ms. Rebecca Reid: We believe it was in November 2018.

Hon. Ed Fast: I'll go back to my suggestion that had there been regular monitoring, whether by drone, by foot or otherwise, or the identification of key critical areas that were perhaps at risk, and the regular monitoring of those, it would have identified this problem earlier and you could have actually had more time to remediate and reduce the risk to the salmon population.

Ms. Rebecca Reid: Yes, if we had known, we could have started earlier.

Hon. Ed Fast: Yes.

Why did it take five months to issue the RFI? The RFI was issued in November, but you already knew in June that we had a crisis here. Why five months? Did it take that long to craft the parameters of the RFI?

Ms. Rebecca Reid: I'm sure Jen will want to jump in, but the incident command system was in place until the end of September. At that point, we demobilized and moved to project management. It was then that we started looking at what's next and realizing we needed more expertise to help design a plan.

Hon. Ed Fast: It sounds like you were overwhelmed with the critical nature of this problem.

Ms. Rebecca Reid: We were entirely focused on doing everything we could at the time to resolve the problem, and we were very optimistic that we would be able to do so.

Hon. Ed Fast: Has that optimism been rewarded?

Ms. Rebecca Reid: We are disappointed that we weren't more successful. Absolutely.

Hon. Ed Fast: Let me get to cost. Have you identified what the total cost will be to remediate the slide?

Ms. Jen O'Donoughue: I don't think we're in a position to say what the total cost is at this point, because it's evolving daily as we go through. We can talk about what we're estimating to spend before the end of this fiscal year, if that's a helpful answer.

Hon. Ed Fast: If you have an estimate of what it will take to get you to the end of the fiscal year, it seems to me you will have already done some planning of what happens beyond and what that cost would look like.

Ms. Jen O'Donoughue: We're still estimating exactly what the total cost will be to remediate. We're anticipating that the federal portion of the spend by the end of this fiscal year will be in the range of $24 million. That continues to change as we go through our work. That doesn't include the provincial portion. Then there is an additional approximately $20 million we're anticipating spending between now and the end of May. That's the federal portion, not including the provincial portion.

The Chair: Thank you, Mr. Fast.

We will now go to Mr. Morrissey.

Mr. Robert Morrissey: Thank you, Chair.

Each year on B.C. rivers, how many events occur that must be managed by DFO? I mean natural events that cause a disruption to rivers, any event that's natural and interferes with the water flow or salmon movement on the rivers.

Ms. Rebecca Reid: From a slide perspective, I'm familiar with several, but it's just a handful.

● (1005)

Mr. Robert Morrissey: Is that on a yearly basis?

Ms. Rebecca Reid: Yes.

Mr. Robert Morrissey: Did I hear you correctly that the only previous slide event of this nature occurred in 1914?

Ms. Rebecca Reid: That's an equivalent comparison, yes.

Mr. Robert Morrissey: Could you explain it to us then? How is the department prepared to deal with these events? Do you have a specific section of the department that's constantly responsible for responding to events?

Ms. Rebecca Reid: In this event, the department doesn't have an incident command system in place.

We rely on the Canadian Coast Guard's expertise. In this particular incident, we worked with the B.C. Wildfire Service and the Canadian Coast Guard, which are trained and have teams available to respond to emergencies, not normally of this nature but in this case they showed up.

Mr. Robert Morrissey: Are they the primary division charged with preparing for how you're going to respond to it?

Ms. Rebecca Reid: No, I would say that they showed up based on the urgency on an exceptional basis, based on our requests.

Mr. Robert Morrissey: Okay.

In an answer to an earlier question by my colleague Mr. Arnold, you referenced that this made a bad situation worse. You referenced 2009 and I was wondering why. In the year 2009, you indicated that the predicted salmon spawn, I take it, did not materialize.

Ms. Rebecca Reid: I misspoke. I intended to say 2019.

Mr. Robert Morrissey: That was 2019. Okay, so there was no event that occurred back at that particular time.

Again, going back to the situation, the department exhausted all resources that it could to carry out work that was practical at that time. Am I correct in that?

Ms. Rebecca Reid: That's correct.

Mr. Robert Morrissey: There wasn't anything else that would be physically capable of being done to remediate the situation that would have had a more positive impact on the salmon run.

Ms. Rebecca Reid: We did everything we could, and we reached out to every expert we could find to seek advice on how best to respond.

Mr. Robert Morrissey: You're going to continue that course as we go forward—

Ms. Rebecca Reid: We are.

Mr. Robert Morrissey: —until...? When will you determine, or how will you determine that you have now achieved returning the river to as close a preslide water flow situation as possible?

Could you walk us through that a bit?

Ms. Rebecca Reid: We have a consultant who is an expert in such matters, who does have the capability to scan the riverbed and to evaluate the rocks that are there and to model the impact of those rocks.

Mr. Robert Morrissey: I believe you showed us this one.

How far away have you determined we are from reaching preslide conditions?

Is that a fair question? Do you know that?

Ms. Rebecca Reid: If you can see in this picture where it goes smooth and then rough, there's sort of a lip of rock that's still there that's been modelled that will be causing an impediment to fish passage. We need to be able to reach that lip, that rock, and remove it, and right now we are unable to reach it.

That's the winter work.

Mr. Robert Morrissey: You're unable to reach it at present. When do you anticipate reaching it?

Ms. Rebecca Reid: The plan would be to.... Because we're going to run out of time because of the freshet, we'll need to come back in the winter when the water is low again and continue to do rock work.

Mr. Robert Morrissey: Because of the natural elements you're restricted from going any farther. Money wouldn't make.... No matter how much money would be thrown at it, you cannot move any faster than you're going now.

Ms. Rebecca Reid: That's correct.

Once the freshet arrives, everything will be under water and then the fish will arrive. After that we'll have to stop the rock work.

Mr. Robert Morrissey: A lot of your timelines are being driven by the natural environment you're working in, and I mean the natural environment that was created by the slide because the slide is a natural environment. Am I correct?

Ms. Rebecca Reid: It is a natural event. You're right.

The Chair: Thank you, Mr. Morrissey.

Now we'll go to Mr. Johns, I believe, who's using up Madame Gill's time again.

You're going to owe her a big favour, Gord. I better remember this.

You have a total of five minutes, sir.

Mr. Gord Johns: Thank you.

One thing that really concerns me is the B.C. salmon restoration fund, which you talked about. With the $13 million, when that gets out the door, you're at $68 million, which isn't even half of the $142 million earmarked for restoration. This is a crisis right now.

I know you've cited that capacity is a big issue and this is where my concern is about short-term funding instead of long-term funding, because clearly we need to build capacity. Would that not be correct in terms of being able to get money out the door when we have need to invest heavily in restoration right now?

● (1010)

Ms. Rebecca Reid: From a SRIF perspective, the SRIF was put into place before the rock slide, and we're not using it as a solution to the rock slide. Your point on restoration is well taken. We have a number of restoration activities under way. It's important for us to be strategic about what sites we select, and it takes time and capacity. It also takes DFO capacity to help support restoration activities.

Mr. Gord Johns: Right. I guess my concern is that it is interconnected because we have the lowest return in recorded history, despite the Big Bar. Now we have the Big Bar and we've lost a ton of fish, at least 60,000 that we know of. Is that correct?

Ms. Rebecca Reid: No, it's way more than that.

Mr. Gord Johns: It's way more than 60,000, so this would be the time that the department, for the long term, needs to build capacity, because it's going to take years to rebuild those stocks. Given that, and in terms of inflation, is it true that SEP is running at a shortfall of about $6 million a year right now because of the cost of inflation and that it hasn't had an increase in years?

Ms. Rebecca Reid: SEP hasn't had an increase, but it's not running at a deficit. We balance our budget, if that's what you're asking.

Mr. Gord Johns: Yes, I know, so it is a deficit that it's operating at if you look year over year.

We're talking about the people who are being affected by it. We're hearing that a lot of the recreation, sport and commercial fishers want to mark all hatchery fish. What's the roadblock on doing that? Clearly, they're doing the hard work of making sure those fish come back. They're not even asking for more fish to be enhanced. They're talking about marking all the fish and being able to retain the hatchery fish at sea. Can you speak to that?

Ms. Rebecca Reid: It will be hard to be concise, but I'll say two things about marking. One is that mass marking affects our stock assessment work. As we mark more fish, we lose information about stocks. The second thing is that unless you do the marking in a particular way, you end up killing wild fish. That's not to say you can't do it, but you need to be careful. You need to have a plan. You can't rush into it. You need to be very deliberate and thoughtful about how you move into a mass marking or a mark-selective fishery regime.

Mr. Gord Johns: They're doing that, obviously, in Oregon and Washington. We're catching some of that fish. Why is it that we're not tying in with what they're doing?

Ms. Rebecca Reid: We have looked at what Washington is doing. It has a very different situation down there. Our priority here is wild fish, so in order to protect wild fish, we need to make sure they are able to return to their streams. Having huge marked fishing opportunities means you're picking up wild fish and marked fish at the same time, and there is an impact on those wild fish. That's not to say you can't do it, but you need to be thoughtful about it.

Mr. Gord Johns: They're already doing it right now. They're catching fish and releasing. In terms of conservation, we see this as a pathway forward. We can have a longer debate about this, and I hope there's room at some point, because the communities want the department to come to the communities and have this conversation. It's of utmost importance, and we're hearing it from everyone up and down the coast.

Ms. Rebecca Reid: We are having that conversation, and that's part of some of the chinook meetings that we are leading right now.

Mr. Gord Johns: What's happening with the relief package that UFAWU and Unifor called for? They asked for moorage relief, their salmon licence fees from last season to be returned, loans up to $10,000 and EI relief. They haven't seen a thing. This is a problem. We see oil workers getting help when times are tough. When there's a flood in eastern Canada or a forest fire in Alberta, there's relief, but we're not seeing relief for these fishers. Is there a plan?

Ms. Rebecca Reid: I'm not able to answer that question.

Mr. Gord Johns: Okay, that's probably what they're feeling right now from everybody, so I'm urging the department to seriously step up to the plate. People are losing their homes.

On the salmon stamp fee, the NDP doesn't typically support increases in user fees except in this situation, since they would go to restoration. Is that being revisited and looked at?

Ms. Rebecca Reid: Certainly the Pacific Salmon Foundation has recommended an increase in the fee, and we are looking at that.

Mr. Gord Johns: We support that. Thank you.

The Chair: All of your five minutes is up. I think we have time to go to another round if it's the will of the committee, and probably leave five or 10 minutes at the end to do a small bit of committee business.

Now we go to the Conservative Party.

Mr. Arnold, go ahead for five minutes or less, please.

● (1015)

Mr. Mel Arnold: Thank you, Mr. Chair.

I'll get right to brass tacks here. How often does DFO conduct monitoring flights on the Fraser?

Ms. Rebecca Reid: Do you mean monitoring for fishing?

Mr. Mel Arnold: I mean monitoring flights on the Fraser. Can you send that report back to the committee so we can take a look at that? I know they're done regularly during the fishing season to monitor how many fishermen are on the river, but how many other monitoring flights does DFO do on the river?

Mr. Andrew Thomson: To clarify, we do monitoring flights for stock assessment purposes and we also do monitoring flights for enforcement purposes, looking for nets and also doing counts.

Mr. Mel Arnold: Could you provide the committee with a report on all monitoring flights done on the Fraser River over the past four years?

Next, how many days were the fish transfer operations conducted last fall?

Ms. Rebecca Reid: I can't tell you offhand.

Mr. Andrew Thomson: I think we started in mid-July and we ended in the first week of September.

Mr. Mel Arnold: Was it approximately two months, 60 days?

Mr. Andrew Thomson: Approximately.

Ms. Rebecca Reid: That sounds about right.

Mr. Mel Arnold: The report said that 30,000 fish per day were passing through the slide unassisted. A quick calculation of 30,000 times 60 days would be what, 180,000 fish?

Mr. Andrew Thomson: No....

Mr. Mel Arnold: No, it's 1.8 million fish.

Ms. Rebecca Reid: I think at certain points there were those numbers of fish passing, but you want the numbers and we'll clarify, because we have the numbers. They're a bit unclear at this point.

Mr. Mel Arnold: Thirty thousand fish per day passing unassisted is certainly a misleading report, and that's DFO's official report on the website.

Mr. Andrew Thomson: It is the number that passed. Once the level of the river came down to a point where natural fish passage could occur, you saw a very significant increase very quickly in the numbers of fish that could pass.

Mr. Mel Arnold: A time reference on that report would probably be very beneficial.

Next, how many smolts will be required to restore that one lost year? How many smolts per year would need to be back in the streams to migrate back down in order to replace that loss? What would be the typical smolt output in that year class?

Ms. Rebecca Reid: That's a very difficult question to answer. It would depend on the productivity in the ocean, the survivability, the conditions. I can't answer that offhand.

Mr. Mel Arnold: How many smolts would typically be produced in that run class from the expected passage rate? Of the natural spawning and rearing, how many smolts would be expected to be migrating out from that year class?

Ms. Rebecca Reid: I'm sorry. I don't have that number.

Mr. Mel Arnold: Could you provide that to the committee, please? Thank you.

Earlier you mentioned that you're looking at current DFO hatchery sites. Why are you not looking at private or NGO hatchery capacity as well, to help with the restoration?

Ms. Rebecca Reid: We have an enhancement team that's looking at all viable options. Where there is hatchery capacity, we'll be looking at it. However, DFO is going to need to have some management oversight of those hatcheries in order to ensure that the enhancement activities take place in the way we need.

Mr. Mel Arnold: Yes, that's understandable.

What other contingency plans are being put in place to increase the in-stream habitat to possibly boost the natural reproduction to rebuild those stocks?

Ms. Rebecca Reid: Related to this incident itself, we don't have any restoration activities of that nature as part of our contingency, but there are broader restoration activities going on.

Mr. Mel Arnold: Then there's nothing focused on restoring these particular stocks that have been impacted so severely.

Mr. Andrew Thomson: There is an overlap, because the stocks that migrated above the slide were already stocks that in some cases were in some difficulty.

Some of our restoration activities focus on those stocks and were already focused on them prior to the slide.

● (1020)

Mr. Mel Arnold: We're out. Thank you.

The Chair: Thank you, Mr. Arnold

We'll now go to the Liberal side, with Mr. Weiler, for five minutes or less, please.

Mr. Patrick Weiler: Thank you.

In this process of responding to the Big Bar slide, what types of stakeholders are involved in the technical working groups, and how are these different experts selected?

Ms. Rebecca Reid: There are a number of different experts. Right now, we have two technical teams: one on enhancement, and one on alternative fish passage. We also have a number of engineers,biologists and scientists from within the department.

We also have a number of consultants: Pacific Salmon Foundation, a number of first nations, Upper Fraser Fisheries Conservation Alliance, Okanagan Nation Alliance, the sport fishing advisory committee, people from UBC and from the Province of B.C., as well as community groups.

How were they selected? In a way, they were self-selected. We asked for people who were interested. We reached out to others. We were looking far and wide for support. People are very interested in this project, so we've had an overwhelming response of support.

Mr. Patrick Weiler: How do these technical working groups operate? How do they come to different decisions and options?

Ms. Rebecca Reid: They convene as a group. They explore ideas. I don't know their specific governance but it is a collaborative process. We are looking for ideas. We're looking for things that are technically feasible. These groups have explored a huge number of ideas that I haven't identified today. They have discarded the ones that are least likely and have come up with the ones that are most likely, which are the ones I presented.

Mr. Patrick Weiler: At which points are these technical working groups providing information for different decisions?

Ms. Rebecca Reid: They are focused on how to respond, what to do and the feasibility.

Mr. Patrick Weiler: That's great. For this project overall has access to financial resources been a constraining element?

Ms. Rebecca Reid: No, it has not.

Mr. Patrick Weiler: Overall, for the department, how have funding levels changed over the last four and a half years for both research and enhancement for salmon?

Ms. Rebecca Reid: There has been a big increase in the department's funds.

Jennifer, do you want to speak to this?

Ms. Jen O'Donoughue: Is the question specifically about salmon?

Mr. Patrick Weiler: Yes.

Ms. Rebecca Reid: We've had a number of investments that support salmon, for example, the BCSRIF or the Pacific Salmon Foundation. There's an investment in science that directly benefited salmon, so there are a number of different situations and examples: the coastal restoration fund, for example.

Mr. Patrick Weiler: Have similar areas of potential slope instability along the Fraser and other major salmon-bearing rivers been identified in the wake of this project?

Ms. Rebecca Reid: This particular location has some cracks that we've been looking at that could have been there for a thousand years or one year. DFO hasn't undertaken a thorough review of the slope stability, although I think it is understood that it's an unstable area.

Mr. Patrick Weiler: Okay.

What other disaster mitigation strategies and management lessons have been learned throughout this process?

Ms. Rebecca Reid: The lesson of collaboration is a huge one for us, as are the importance of reaching out to experts, the extreme importance of communication and making sure people feel engaged and have the opportunity to provide input, taking quick action and doing what you can as soon as you can, and planning proactively for the future.

Mr. Patrick Weiler: The contingency measures are listed in an order of one to four. Is there some significance to that?

Ms. Rebecca Reid: They are listed somewhat chronologically, as in, here's the first thing, then the next, then the next. Just to be clear, we do need to put all the infrastructure in place at the same time before the water levels rise so that we can add these things. We would also anticipate.... It's not entirely sequential because the water is flashy. If it drops, maybe the fish will be able to pass naturally again. If it rises, maybe the fishway will work. If it doesn't work, maybe the fish pump will work.

We are looking at those contingencies as needed.

● (1025)

Mr. Patrick Weiler: Will the technical working group be engaged to determine what contingency measures will be taken going forward?

Ms. Rebecca Reid: As we operationalize the activities this summer, we will continue to engage our technical experts in the way forward. We're going to need to have a very regular evaluation and adaptation approach to make sure we do everything possible to support fish passage.

Mr. Patrick Weiler: That's great.

The Chair: Thank you, Mr. Weiler.

Now we'll go to Mr. Fast, for five minutes or less, please.

Hon. Ed Fast: Thank you.

You made a statement earlier that your priority is wild fish. That can be taken a number of ways. If you speak to our sport fishing stakeholders, they would be taken aback because their only opportunity to take fish is marked hatchery fish. Is that correct?

Mr. Andrew Thomson: No.

Hon. Ed Fast: No? For chinook that's the case.

Mr. Andrew Thomson: No, we provide opportunities for wild and marked fish in various fishing locations throughout British Columbia, depending on the abundance of the fish returning.

Hon. Ed Fast: I understand that, certainly, at the mouth of the Fraser...?

Mr. Andrew Thomson: In the Fraser we put in place last year very restrictive fishing access because of returning stocks' being low, and also, of course, because of the impact of the Big Bar landslide, where we sought to have only catch-release fisheries at the mouth of the Fraser throughout the course of the year.

Hon. Ed Fast: That was catch-and-release for wild salmon, not for—

Mr. Andrew Thomson: It was for all fish, actually.

Hon. Ed Fast: Okay.

The recreational or sports fishers obviously would love to see mass marking of hatchery fish.

Ms. Rebecca Reid: Actually, I don't believe that's the case.

Hon. Ed Fast: I met with them yesterday. That is the case. They were with me in my office.

Ms. Rebecca Reid: More selective fishing is what they have told us they want. They're not proposing mass marking. There is a difference between those.

Hon. Ed Fast: I understand the difference, but they want to see more opportunities to catch fish. It's a significant industry on the west coast. Maybe they're telling me something quite different from what they're telling you, but they would love to see much greater marking of fish. I did notice a reluctance on your part earlier to go down that path. I'd like to know why.

Ms. Rebecca Reid: I was trying to explain in just a few short words some of the technical considerations around mark-selective fishing, and particularly mass making. We're going to need to adapt our systems and processes in order to ensure we have the scientific information we need and that we can protect wild salmon.

There are ways to do it and we are looking at those. We're working with the sports industry on that.

My point was simply that we need to be thoughtful and careful about how we proceed down that path.

Hon. Ed Fast: What's happening in Washington state with mass marking?

Ms. Rebecca Reid: Their situation is very different down there. They have a higher reliance on hatchery fish. Here we have the wild salmon policy, which prescribes our approach to protect wild salmon. In that way we need to be careful about how many hatchery fish we put into the system, because they do have an impact on those wild returns.

Hon. Ed Fast: In Washington state they obviously have as much concern for protecting the wild salmon, yet they have much broader marking of fish than we do on the west coast of B.C. I just don't see why we wouldn't be exploring the experience of Washington state to try to enhance the opportunities for the sports fishers in British Columbia.

Mr. Andrew Thomson: We do have a pilot program this year at Conuma hatchery on the northwest coast of Vancouver Island, where we'll be having a pilot marking and mark-selective fishery.

Hon. Ed Fast: Is it a mass marking project?

Mr. Andrew Thomson: Yes.

Hon. Ed Fast: Okay. I'm glad to hear you're open to that.

By the way, let me say you have a really tough job. You have challenges all over the map right now with respect to the west coast fishery, the salmon fishery. I don't envy you your job. If we're asking you tough questions, it's because we care as much as you do about this and we want to make sure we get to the bottom of it.

In getting back to the 60,000 and 80,000 fish, you mentioned there were 140,000 that got past the slide one way or another. You said it might be higher, and you're going to get back to us with those numbers. Do we know how many of them survived?

● (1030)

Mr. Andrew Thomson: It depends on the stock. I have some numbers in terms of our escapement estimates. For the spring 4_2s—these are the different chinook stocks we count—about 6,000 was the escapement estimate. For spring 5_2s, it was 3,500. For summer 5_2s it was 5,000.

Hon. Ed Fast: Are these the numbers that survived?

Mr. Andrew Thomson: These are escapement to the spawning grounds, fish that actually made it to the spawning grounds.

Hon. Ed Fast: Great.

That doesn't mean they're healthy enough to spawn. Is that right?

Mr. Andrew Thomson: Certainly we don't have a measure of exactly how healthy they are until we see the outmigration.

Ms. Rebecca Reid: We have to count the fish, the babies coming out.

Mr. Andrew Thomson: Yes, but these were the number of fish that were on the grounds. How successful they were in the spawning is yet to be seen.

Hon. Ed Fast: How effective are you—

The Chair: Sorry, Mr. Fast, you're over your time, actually. I just wanted to let the answer happen.

We'll now go to back to the Liberal side, to Mr. Hardie, for five minutes or fewer, please, when you're ready.

Mr. Ken Hardie: Thank you.

I'll just look to my colleagues to make sure they don't have any questions to wrap things up.

You mentioned the timing of the blasting to get rid of the rocks. I think you called it the Toe...or what was it?

Ms. Rebecca Reid: It's the East Toe, yes.

Mr. Ken Hardie: Did you monitor the impact on fish with that blasting?

Ms. Rebecca Reid: Yes, we did.

Mr. Ken Hardie: What was the result of that monitoring?

Ms. Rebecca Reid: There were no fish there. We didn't blast when there were fish.

Mr. Ken Hardie: There were no fish, so no bodies?

Ms. Rebecca Reid: No bodies, no fish.

Mr. Ken Hardie: Okay. Looking ahead to the next blasting season, if we want to call it that, what will the timing be?

Ms. Rebecca Reid: It will be at low water conditions, with no fish around.

Mr. Ken Hardie: The time of year would be approximately...?

Ms. Rebecca Reid: It would be the winter.

Mr. Ken Hardie: Would it be December, January?

Ms. Rebecca Reid: It'll be whenever the water is lowest. I can't say exactly, but it would presumably be around the same time period.

Mr. Ken Hardie: Basically, how much more blasting will need to be done? I know you've estimated maybe two more years' worth of work, but obviously the number of discharges that take place will depend on how difficult it is to prepare a particular boulder or whatever. How many more times will you actually have to blast, and then what happens after you blow something up?

Ms. Rebecca Reid: Those are excellent questions. The contractor that's in there right now, Kiewit, has the engineers and the experts who will know the success of the blasting. I did say before that my experience in the past has been that it takes up to three years, or sometimes even more, to remove an obstruction. I don't know in this particular case what it will take. We're hopeful that, not this month but perhaps in the next blasting period, we'll be successful. But Kiewit's going to have to assess that.

Mr. Ken Hardie: We hope they'll be in a for a subsequent hearing.

What was the role the Canadian and U.S. military played in all of this?

Ms. Rebecca Reid: In our efforts to reach out for advice, we did reach out to the U.S. Army Corps. They did offer us some advice, but in the end we took a different route.

Mr. Ken Hardie: I'm sorry...?

Ms. Rebecca Reid: They offered us some advice, but they weren't in a position to do the work for us. They provided us their opinion, but we proceeded along the contracting line to get Kiewit in place.

Mr. Ken Hardie: Were there any military people on site during the course of the work?

Ms. Rebecca Reid: We had some people come up to look at the site—not during the blasting period, if that's what you mean, but in advance. When they were evaluating what to do, we had people on site.

Mr. Ken Hardie: We're now beyond the time when it's basically feasible or safe to be working in that area. What are your plans, then, for ongoing monitoring and measuring? Are there other works that will be taking place even though the blasting and clearing can't take place?

Ms. Rebecca Reid: Do you mean monitoring for fish or monitoring for slides?

Mr. Ken Hardie: I mean working on the slide, working on getting rid of the obstruction or mitigating its impact. If we're not down there trying to remove the obstruction, because of the freshet and then the movement of fish, what other work will be going on in the meantime? Will there be eyes and ears on that site throughout the entire coming season?

● (1035)

Ms. Rebecca Reid: Absolutely. To be clear, we still are there. We are blasting every day right now. Now that the road's in place, the company is working furiously to remove as much of the rock as it can. They will be there until the freshet chases them away. After that, there will still be people in place because we'll be installing our contingency measures, and we will be on site throughout the summer.

Mr. Ken Hardie: You mentioned that the incident command function has basically been disbanded now. Is that no longer needed?

Ms. Rebecca Reid: Yes. After the summer period, we moved to the project management approach. As we move into the summer period, we're going to need a process to do those operational activities as well. Whether it looks like it did last year hasn't been determined yet, but there's no question that we're going to need on-site people managing the project.

Mr. Ken Hardie: Have you in fact—

I'm sorry, have I finished?

The Chair: Mr. Hardie, your time is up.

I'm going to go out on a limb here and assume, Mr. Johns, that you're going to use Madame Gill's time again as well?

[*Translation*]

Mrs. Marilène Gill: I'm going to give my time to Mr. Vis since this concerns his riding.

Mr. Brad Vis (Mission—Matsqui—Fraser Canyon, CPC): Thank you very much, Ms. Gill.

[*English*]

Thank you for letting me sit on this committee, Chair McDonald.

I'm thankful for a lot of the questions asked by all sides so far. I think it's been a very productive discussion, from what I've heard.

Back in December, I was briefed that the blasting would take place in advance of the freshet, as we've heard today, but there was no indication that blasting would continue into subsequent years. What I've heard today is that blasting will continue next year. Is that an indication that the initial scenarios put forward to the public, and advised by the technical team, haven't reached their desired objectives this spring?

Ms. Rebecca Reid: As the water has dropped, we've had the opportunity to learn more about the situation of the slide. We are learning as we are going. The new information has led us to believe that there won't be enough blasting done before the freshet to clear the obstruction.

Mr. Brad Vis: Okay.

I think you've done a great job of answering questions today, but I do have to ask you this. I'm going to Lillooet next week in my constituency and will go and speak with the first nations. If you were to go and stand before those first nations, would you say that you've done everything in your power as a public official, that you've worked your hardest, to ensure the protection of salmon populations on the upper Fraser and keeping them for future generations?

Ms. Rebecca Reid: I did stand before them last week, and I did say those things, yes. Thank you.

Mr. Brad Vis: I'm really glad to hear that. Thank you.

Those are really the only questions I have.

The Chair: Are you going to take the remaining time, Mr. Arnold? You have 40 seconds.

Mr. Mel Arnold: Thank you, Mr. Chair. I think I can fit this in.

Very quickly, are you able to do sufficient stock assessments on the stocks affected by the Big Bar slide and on other declining salmon stocks in British Columbia? Are you able to do sufficient and effective stock assessments to know how many salmon we have returning and how many we don't have returning?

Ms. Rebecca Reid: I think we have a strong stock assessment program, yes. You can always do more, but I believe that we do have a good program.

The Chair: Thank you, Mr. Arnold.

Mr. Johns, you have two and a half minutes.

Mr. Gord Johns: I want to reiterate what Mr. Fast said. Thank you so much for your testimony and for your work. It's a long two hours here.

We want to avoid what happened last year, obviously, which was the worst return in recorded history. Maybe you can assume that the current project will work and that fish passage at Big Bar is restored. What is the next biggest priority your department is working on to ensure that Fraser salmon flourish in the future?

Ms. Rebecca Reid: There's no question that there are concerns about Fraser returns, regardless of the slide. We do need to put management measures in place to ensure the protection of those stocks. That would be my biggest priority.

Mr. Gord Johns: Maybe you can talk about three to five things that you're working on to make the salmon fishery flourish again on the west coast. What's it going to take? What resources do you need?

● (1040)

Ms. Rebecca Reid: We need to have the proper management tools and management measures. We need to have good science. We need to have the co-operation of our stakeholders and our indigenous groups to work collaboratively. We need restoration activities. We need to work with the Province of B.C. That's five things.

Mr. Gord Johns: That's pretty quick. Good job.

When we look at our partners to the south and to the north—Alaska, Washington and Oregon—in terms of what they invest in their fisheries compared with ours, do you do that analysis? What does it look like in terms of what we're doing here? To me, it looks like there is clearly a massive shortfall coming from Canada in terms of our partnership here in the Pacific northwest.

Ms. Rebecca Reid: A conversation about money would take more time. The context is different down in the south, though, if you look at what goes on down there versus here. Their investment in hatcheries is significantly different from ours, for different reasons. What goes on in Alaska is that they have very good science programs up there. We do work effectively with our U.S. colleagues and collaboratively on the science. I think that's important. I don't know what else to say.

Mr. Gord Johns: What kinds of investments are you making at management tables? In my riding, I have West Coast Aquatic. They are chronically underfunded, and they serve such a great role. They take the pressure off DFO and bring all stakeholders together. Can you speak about what kinds of resources you're looking at to support those tables? We want the minister to actually go and join them.

Ms. Rebecca Reid: One of the things that I'm really happy about is the new investments in the Fisheries Act, because parts of those new investments are around integrated watershed planning processes. On the support for West Coast Aquatic and the investment in oceans management and oceans planning, those pieces are fundamental to supporting where we go with the department. We need those integrated kinds of freshwater and ocean water planning pieces. West Coast Aquatic is very well positioned to support those types of activities. They are a very effective group.

Mr. Gord Johns: Will we see those resources soon?

The Chair: I'm sorry, Mr. Johns. You are way over.

I want to do a couple of minutes of committee business, so I will quickly say thank you to our guests today for being back once again to present before committee.

It has been a gruelling two hours of questioning as well, of course, so again, thank you for your time and for everything you do for the department and for our fish stocks right across this country.

We'll suspend for a moment. I just have one question to deal with in committee business, so we will give you some time to go in camera. Thank you.

[*Proceedings continue in camera*]