Commission of Inquiry into the Decline of Sockeye Salmon in the Fraser River



Commission d'enquête sur le déclin des populations de saumon rouge du fleuve Fraser

Public Hearings

Audience publique

Commissioner

L'Honorable juge / The Honourable Justice Bruce Cohen

Commissaire

Held at:

Tenue à :

Room 801 Federal Courthouse 701 West Georgia Street Vancouver, B.C. Salle 801 Cour fédérale 701, rue West Georgia Vancouver (C.-B.)

Wednesday, June 8, 2011

le mercredi 8 juin 2011





Commission d'enquête sur le déclin des populations de saumon rouge du fleuve Fraser

Errata for the Transcript of Hearings on June 8, 2011

Page	Line	Error	Correction
69	31	in the water	is the water

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Vancouver, B.C./Vancouver
(C.-B.)
June 8, 2011/le 8 juin 2011

THE REGISTRAR: The hearing is now resumed.

MICHAEL CROWE, recalled.

CORINO SALOMI, recalled.

STACEY WILKERSON, recalled.

EXAMINATION IN CHIEF BY MS. BAKER, continuing:

- Q Thank you. When we left off yesterday, we were talking about changes in the 2000s between, I guess, with respect to the province's role in habitat management and the riparian areas, and I wanted to also ask if there was any, at that time particularly you, Mr. Crowe was there any increase in development activities in the province in that period, in the 200s?
- MR. CROWE: Yes, there was. Starting in the late 1990s and definitely picking up through the early 2000s, right into essentially 2008/'09, it was a very intensive pace of development through many sectors and within B.C. Resource extraction sectors, recreational development, infrastructure expansion, railways, highways, pipelines, new pipelines, as well as what's called looping, which means one pipeline does not have sufficient capacity, so a pipeline company will twin it, they'll put a second pipeline in. So the population was growing, you know, had been growing within B.C. quite steadily, and there was expansion in all elements of urban and commercial industries, sufficient, you know, and equivalently to that general population growth.
- Q And did you have at that time any changes in staffing in your OHEB offices?
- MR. CROWE: In the early 2000s, or through the 2000s? O Sort of 2003 and onward.
- MR. CROWE: Well, first, to help for context in my answer, I need to explain that prior to the 2000s that the Department of Fisheries and Oceans had been developing a number of different programs, we called them B-base or sunset programs, I think

you've heard of them spoken of before, such as the Green Plan. It was a sort of -- and that was followed by other programs called, as well, often named them after Ministers, the Mifflin Plan and the Anderson Plan.

There was components to those, these larger plans, that delivered specific projects. Examples would be the Habitat Restoration Salmonid Enhancement Program. And one that was particular to that, that management program was called HCSP or the Habitat Conservation Stewardship Program. This was essentially resources provided to us to develop and expand upon components of our Habitat Program to deliver a wider spectrum of strategies from the Habitat Policy.

This one, a critical part of this was to try to expand or create partnerships and essentially understanding capacity and cooperation amongst different sectors, and we've provided resources to industry, to First Nations, and to local government to understand DFO's interest in terms of habitat conservation and protection, and bring them on as partners.

So through these sequence of programs, one that usually followed after another, there was a general increase in the Habitat Management Program's capacity, while sunsetting, individuals were brought on and when they were actually made indeterminate, they became part of our core staffing contingent. Added to that there was a number of decisions that affected mostly Central and Arctic, but there was a decision of Pacific Region to join that, where we in the -- it was called the Blueprint Initiative, but there was new resources that came to mostly Central and Arctic Region, but also to the B.C. Interior specifically to increase our role in freshwater habitat management.

So over the 1990s into the early 2000s we were in a growth phase in terms of our resources and program delivery and expansion of, you know, many elements of the Habitat Policy, again speaking to trying to deliver a broader spectrum of strategies within the Habitat Policy.

In 2004 that essentially came to an end. There was a number of decisions that reprioritized federal funding and these B-base programs were,

once the last one ran out, there was no continuation, and we went through an economic review period. It was an acronym, ERC - Economic Review, I cannot remember the "C", I apologize - which determined that we were going to be realigning resources to other governmental priorities. This resulted in a change in staffing levels, as well.

So with all that background and context, and I apologize if it was too long, we -- and I'll speak specifically about the B.C. Interior, but it does expand to the larger regional Habitat Management Program, did go through a period of downsizing. Would you like me to get into specific numbers, or...

- Q I've got some documents on that I'll get to in a minute. I just wanted to get a general sense that there was a downsizing. And was this, when you were talking about the economic review, was it the Expenditure Review Committee?
- MR. CROWE: Yes. Thank you.
- Q Is that what it was? Okay.
- MR. CROWE: Yes. Thank you.
- Q All right. And was that a similar experience that you had in the Lower Mainland, Mr. Salomi?
- MR. SALOMI: Well, as Michael said, there was a bit more of an expansion through that period in the B.C. Interior. So the Lower Fraser office didn't really expand, but we were involved on the downside, to some extent.
- Q Okay. And so that left you, I take it, with fewer staff to do some of the programs that you had, your just general programs that you needed to maintain; is that right?
- MR. CROWE: That's correct. We had to determine what our priorities were, relative to our capacity to be as effective and efficient as we could with the resources we did have.
- Q Okay. And so how did you address this, how did you resolve some of these capacity issues?
- MR. CROWE: Essentially we, the managers in the B.C. Interior initiated a process called Developing Operational Principles. Later you'll hear us, I expect we'll be talking about operational statements, but this was pre-EPMP where the B.C. Interior went through essentially a detailed review process of all our programs and assigned

 priorities to each of those program elements, relative to what we assess as the managers to be the relative risk in terms of potential harm to habitat, and therefore the fish. And then essentially determine how many resources does it take to deliver on each of those program priorities, and essentially determine based on essentially a triage system, what we could and could not support, continue to support as a program, what elements of our program were going to essentially receive a different service level, be delivered in a different manner, or we were just not going to be able to attend at all.

- Q As some of the -- you mentioned that you developed different ways of delivering services. Were some of those ways described as streamlining processes?
- MR. CROWE: Yes, definitely. We developed a number of streamlining processes, essentially that would be reliance on guidance documents created by either the Department or other agencies, such as best management practices.
- Q Are those the same thing as the fact sheets we talked about yesterday?
- MR. CROWE: Essentially, yes, I'd say best management practices, operational statements, fact sheets, are all a form of guidance document that provide guidance to the proponents on how to undertake their development activities, or activities in general, in the manner that was least likely to harm fish and fish habitat.
- Q Okay. Well, let's talk a little bit about the best management practices or fact sheets. First of all, what kinds of things did they address and how were they created?
- MR. CROWE: Well, essentially, they're created by bringing together experts on a subject and asking them to use their judgments and expertise to create a document that provides guidance on how best to conduct an activity in a manner that meets our program objectives, and that usually essentially means measures that an individual should take to avoid or mitigate harm. They cover a wide spectrum of issues, how to construct bridges, how to stabilize shorelines, place water intakes into water bodies, bridge cleaning and maintenance, wide range of different activities.
- Q Was the province involved in developing any of the

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fact sheets or the best management practice documents?

- MR. CROWE: Many of them were provincially written documents. Some of them are co-authored. We would sometimes borrow from other jurisdictions, as well in the creation of these.
- Q And how would Fisheries and Oceans use those documents?
- MR. CROWE: Essentially we would try to -- if someone approached us to conduct a development activity that we felt could be managed through one of these best management practices, we would essentially, instead of responding through a letter of advice or direct engagement, we would provide them the fact sheet or best management practice, and essentially tell them to please follow this document and then re-contact us if we they could not meet the measures of standards within the document. We would often try to deliver them through other agencies, make them available through Front Desk kiosk at different government offices, place them on websites and other manners of...
 - There's one best management practice that relates to danger trees; is that right?
- MR. CROWE: That's correct, yes.
- Q And what is the danger tree best management practice?
- MR. CROWE: This BMP relates to -- a common challenge for us is that large, very large or, you know, mature trees on property that has reached an age or as to be susceptible to disease has a chance of falling. From a biological perspective, that's great. We actually want those trees falling into stream bodies. They're a great source of cover and nutrients and benefit stream configuration. However, for a property owner, they compose a danger to themselves or family and their property. So the idea is that this is a best management practice on essentially recognizing that human safety is critical, that we cannot -- we will not stop someone from removing a danger tree.

The challenge is often an individual wants to remove trees for aesthetic or landscaping reasons, and people were commonly removing trees under the pretext of a danger tree, where in fact it was a perfectly fine, healthy tree, and therefore we had

to set standards as to when and how an individual was to remove it, and that essentially was the -the best management practice was they were to get an arborist to certify that the tree was a hazard, and then the measures to remove it after they have such certification.

- Q And has that process worked satisfactorily to your view?
- MR. CROWE: It's an improvement. It seems like a small issue, but habitat management is about managing in many ways the small issues. The cumulative impacts of many property owners removing many, you know, trees, when put together over time, has an effect. You add that small development or that small activity to many others, and you start seeing over time that the cumulative incremental loss of riparian function and therefore contribution to fish and fish habitat.

So I'd say it's better. I think that there's still a tendency for individuals to take the initiative to remove trees when they're not necessarily still a hazard, but it does provide more guidance.

- And you said a certified arborist needs to make an assessment of the state of the tree before it's removed. Has that process worked out consistently?
- MR. CROWE: The challenge is that there's a whole spectrum of certifications for arborists, and that some of them I would say are more interested in meeting the property owners' objectives than fulfilling a professional obligation.
- And is there a requirement to report the use of a BMP to DFO, or does DFO do any compliance monitoring with respect to the use of the BMPs after they have been applied?
- MR. CROWE: I can't remember the details. I believe there is an expectation to notify us under that BMP, but I can't say that clearly. I can't quite recollect. There is a -- some local jurisdictions do have a bylaw for danger trees, as well, and that there would be some reporting to the city in those circumstances.
- Q Okay. And what about monitoring for compliance by DFO?
- MR. CROWE: It's deemed to be relatively low risk activity in light of all the many other monitoring

priorities for the Department. I am not aware of any monitoring that we have, as a Department, have done, but that could be possible in other areas of the Pacific Region.

Q Okay. And then another BMP is the Shoreline Erosion Protection Guideline, which I take it refers to retaining walls, in --

MR. CROWE: Yes.

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- Q -- common language. Can you tell us about that one?
- MR. CROWE: This actually is one that's very problematic for the Department, in that - I'm just not quite sure where to start - but, essentially, many property owners purchase very nice lakeshore or stream-shore properties for the purposes of enjoying the aesthetic values of the waterfront, and they want to modify their property in such a way to maximize the recreational benefit. is a very common for individuals to want to do some major foreshore modifications, including replacement of retaining walls, docks, sand importation, filling in the foreshore, and under the pretext of some small amount of erosion, they'll go in and completely modify the foreshore and say they've done it under a best management practice. And it's something that is very problematic for the Department, and we have to take a -- we need to take a far different approach in managing these types of massive foreshore developments.
- And so what has been done in that respect? MR. CROWE: Sorry, I'm trying not to -- it's for a specific issue, I don't want to make my answer too long. But essentially, we need to engage with the province and change some of the province's Water Act Regulation management practices on these foreshore areas, and actually get the BMP changed. I think it was a good idea. It was worth trying, using this BMP to manage this kind of development activity, but in my opinion it has not succeeded. And that government, between the Department of Fisheries and Oceans and the province, have to reassess the risk of this type of development activity and no longer allow it to be conducted under BMP. This is a thing that it's always good to try, but when you have information that something is not working, that this is an example

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where you change your review processes.

- Q And is there a **Water Act**, a B.C. **Water Act** approval required for changes to these retaining walls?
- MR. CROWE: This is actually where it gets to be a real challenge, that under the Water Act of the Province of British Columbia, they control works in and around a stream. So the definition of "in and around" is really what the problem is with this particular issue, in that works below the high water mark essentially fall clearly within the jurisdiction of the Water Act. Retaining walls actually occur at the water, high water mark and above, along the shoreline. And the province actually deems this not to be within the parameters of works in and around a stream, and therefore they do not actually feel they have a regulatory jurisdiction over this type of activity, and that's why we manage it through a BMP.

So we believe, based on a series of Environmental Appeal decisions, that actually the province does have the jurisdiction, and we need to engage with the province at senior levels to get them to revisit their directions and opinion on where their authorities lie in this matter, so that they can manage this type of development activity under the **Water Act**.

This actually leads into, I think, to explain why we're relying on the province in this matter needs a bit of an explanation. The Department of Fisheries and Oceans has its authorities under the Fisheries Act and we can prosecute. Prosecutions are very time consuming and very uncertain as to outcomes. It's often our attempt to work with partner agencies that have similar interests and try to determine which statutory or regulatory tool is the most appropriate to deal with the type of development activity. In many situations it will be a local government through their bylaws and building codes. In other circumstances it will be through a provincial statute, such as the Lands Act or the Water Act. And our opinion is rather than pursuing some of these consistently problematic problems through Fisheries Act prosecution, that a permitting review by the province would be a better approach.

And we're going to talk quite a bit later, or quite a bit, comma, later about the *Riparian Areas Regulation*, so I don't want to get into a lot of detail about that now. But I just want to understand, is there a gap between how that regulation would be applied and some of the issues that you're talking about here with respect to these -- with these erosion guidelines?

MR. CROWE: Sort of there's two gaps. The one is that the Water Act as presently applied by the province is below the natural boundary, or, sorry, the mean annual water mark, which is sort of the -- that means the average water elevation, and the Riparian Areas Regulation, that applies above the one-in-five-year flood elevation. So there's actually vertical distance between those two elevations that my understanding that neither the provincial Water Act or the Riparian Areas Regulation applies to.

The other gap would be that the **Riparian Areas Regulation** does not apply throughout all of B.C., and even with the areas of B.C. it applies, it's not applied consistently, or -- and so there's that gap, as well.

- Q All right. And when you talk about a gap of vertical distance, that may not sound like very much when you're looking at it straight up and down, but that could actually be on -- a low grade end could extend for quite a period of space; is that right?
- MR. CROWE: Absolutely. As an example in Shuswap Lake, it's a 40-centimetre difference in elevation. When you look at lower gradient foreshore areas, actually which are often the most important for fish and fish habitat, it can extend for tens of metres. A gradient of one to two percent on a delta area will run for many, many metres.
- Q Another, I don't know if you would consider it as a BMP or another guidance document, is the 2004 Instream Works document. I wanted to ask Mr. Salomi about that. That's in Canada's documents at Tab 18.
- MR. SALOMI: okay.
- Q Is that also a BMP that's in use by DFO? Sorry, it's Tab 18 on Canada's list.
- MR. SALOMI: So as Michael described, we actually worked with our provincial colleagues through the

2000 to 2004 period to produce things like fact sheets or guidance documents, and my feeling is this is a bit of a culmination of those documents. The staff in the Surrey office of Ministry of Environment at that time were quite involved in pulling this together, and it describes a number of common activities that occur in and around streams, and what the best practices are for those activities. It gives a little bit of direction to a proponent or a developer or a contractor that might be doing work, that if they follow certain practices here, they aren't likely to need, for example, formal permits or authorizations, but in other cases, they might.

It talks about things like beaver dams and identifies that beaver dams actually create habitat by flooding the areas that fish can then use. And so when one goes in to remove a beaver dam to prevent flooding, they've got to be careful about how they do it, and provide direction around that.

MS. BAKER: I'll have that marked, please, as the next exhibit.

THE REGISTRAR: Exhibit 1002.

EXHIBIT 1002: Standards and Best Practices for Instream Works, March 2004

MS. BAKER:

- Q Are there any other of these streamlining tools that were developed prior to the Environmental Protection -- the EPMP, I'm probably going to misname it if I try and go through that acronym.
- MR. SALOMI: I'd like to give a couple of other examples.
- Q Yes.
- MR. SALOMI: We talked a little bit yesterday about the Land Development Guidelines and the Stream Stewardship Series. One of the big things we tried to do was encourage local governments to adopt a similar standard within their own government bylaws, and a number of municipalities did do that. They had either a tree protection or a riparian bylaw that would help protect riparian areas. Some of them began to hire arborists and implement their own tree management bylaws, and really took on a lot of the day-to-day management

of those issues in their local municipalities. 1 Within the FREMP program, Fraser River 3 Estuary Management Program, we started to look at what were common activities that were occurring in 5 the Lower Fraser, and established a Track 1, Track 6 The Track 1 process being 2 and Track 3 process. 7 one where the Port Authority could assess those 8 projects, then use some standard BMPs to deal with 9 those activities. There was a notification 10 process where a representative on that committee 11 would be aware of the project, but really the day-12 to-day work and paperwork was handled by the local Port Authority. 13 14

- Q So the member, the person that would be on that committee was a DFO person, is that what you're saying?
- MR. SALOMI: What we had was an Environmental Review Committee where member agencies would sit around and review projects on a bimonthly basis. What we did with this Track 1 process was let the Port Authority handle those instead.
- Q But was there Fisheries and Oceans involvement at any level within that Port review?
- MR. SALOMI: If through the notification process we had concern with, you know, the information provided, or the potential BMPs that would be applied, we could then notify the Port Authority and say, "Hey, we think this one needs a bit closer look."
- Q Okay. And Track 2?
- MR. SALOMI: Track 2 is the majority of the projects where there was a feeling that those works had a potential to have significant impacts, and that it would be worthy of a review and some kind of a formal response, or tailored response.
- Q By DFO.

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- MR. SALOMI: We would coordinate the response with the FREMP program.
- Q Okay. And the Track 3?
- MR. SALOMI: Typically more of a major project type activity. Eventually the Track 3 project became almost entirely handled by the Major Projects Group at DFO and through the coordinated **B.C.**

Environmental Assessment Act/Canadian
Environmental Assessment Act process. So Track 3

didn't really apply that much.

Q Okay. And then there was a new plan, which Ms. Tsurumi has helpfully given me the words and the

acronym, it's the Environmental Process
Modernization Plan. Were there additional changes
made as a result of that plan?
MR. SALOMI: Yes. Now, the EPMP was a national

- MR. SALOMI: Yes. Now, the EPMP was a national initiative. It had five initially, and then six components, and I'll see if I can get them all. One of them was streamlining, looking at ways to streamline the review process. The other one was to improve consistency and coherence in DFO's response to developers and proponents, et cetera. Another one was improving the major projects review process. Another one was Michael, maybe you could help me out here it was working with partnerships, and the sixth element that was added was the Habitat Compliance Initiative.
- Q Okay. Well, if we can focus on the streamlining tools that were developed under that, under the EPMP. What streamlining tools were developed?
- MR. SALOMI: One of the key ones was the operational statements.
- Q Okay.

- MR. SALOMI: Basically somewhere around operational statements, they were called "national operating statements" for a while, and then were changed to "operating statements", were developed.
- Q All right. And these were developed nationally, were they?
- MR. SALOMI: Yes.
- Q Okay.
- MR. CROWE: Sorry, if I can just clarify, there was a national set, then each region was allowed to -- essentially not allowed to, but was able to modify that set and add extras to make them appropriate for a specific region.
- Q Okay.
- MR. CROWE: And just to clarify, an operational statement is essentially a best management practice.
- Q But it's a national DFO-created document.
- MR. CROWE: That is correct.
 - Q All right. And what was the purpose of these operational statements?
- MR. SALOMI: Well, a key statement in most of the operational statements is that if you carry out the activity identified in the operational statement, consistent with the guidance in that statement, the Department deemed that you would

not be causing a harmful alteration, disruption or destruction of fish habitat. And that basically was the green light to tell people you didn't need to seek a formal authorization or any kind of review from the Department.

And again is this -- was there a notice required

- And again is this -- was there a notice required to DFO when those operational statements were used by people?
- MR. SALOMI: Well, under the **Fisheries Act**, there isn't a specific section that says you must apply. There's a s. 35 says you cannot harmfully alter fish habitat, s. 35(2) says you can seek an authorization if desired, but there is not a specific requirement for notification or application. But within the operating statements there is a statement that does request that people notify the Department if they are utilizing the operational statement.
 - Q And have you found people to do that?
- MR. SALOMI: Well, we know who applies, or notifies us. But, yes, I think it's a difficult one to assess.
- And is there any kind of professional certification required that an operating statement has been complied with? Is there any kind of external review required?
- MR. SALOMI: Not that I'm aware of.
- Q Is there any --
- MR. CROWE: Sorry, if I can interrupt.
- O Oh, yes.

- MR. CROWE: A number of them do recommend that a proponent hire a qualified professional to help in the design and construction, but it's not -- it's not a requirement.
- Q Okay. And what about monitoring for compliance. Does Fisheries and Oceans do any monitoring for compliance with operational statements?
- MR. CROWE: Yes, they do. There is, as Corino said, there's a sixth element to EPMP, which is the Habitat Modernization Program, which is essentially our structured Monitoring Unit within the Habitat Management Program. And amongst other objectives of that Monitoring Program, monitoring for compliance of operational statements is a component.

I cannot tell you how much monitoring they've done. You know, essentially there is some monitoring of operational statements, but I don't

know what that is. The complicating factor is because notifications are voluntary, the only ones we can monitor are the people who issued notifications and the expectation is the ones that provide us with notifications are essentially probably the people who are going to be more cooperative and likely to have done them in the manner that they were intended. So you're going to be monitoring a component that probably has a higher likelihood of being cooperative in attempting to fulfill the obligations and intentions of these operational statements.

- What about, I guess, notices given to Fisheries and Oceans by neighbours or other parties, or just things that personnel might see when they're out doing field reviews. Has there been much compliance initiated through those other alternative ways?
- MR. CROWE: Notification from the general public and industry representatives is a very common way that we become aware if there's an activity that may be out of compliance or has not received any kind of governmental review. So we rely heavily on our federal as well as provincial reporting lines to report occurrences of possible activities that have not been reviewed or permitted, other than through ourselves or the province.
- Q And are these operational statements designed for any particular level of risk? For example, are they designed for low risk projects, medium, high risk, is there any -- is that one of the factors that was determined as to what operational statements would be created?
- MR. SALOMI: That was the intention, you know, part of the EPMP program was to establish, quote, pathways of effects to describe how effects or activities might impact fish habitat, to then categorize outcomes as low, medium or high risk, and then to apply things like operating statements to the low risk activities.
- Q And do you, in your view, has that worked effectively, for example, do you -- is there a way to assess impacts on a cumulative basis, for example, if a subdivision was created and there was repeated compliance with operational statements, but there was a whole series of them done at the same time, has that been assessed?

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No. So, for some of the operating MR. SALOMI: statements that are more maintenance-based, or really have limited impact on fish habitat, I think the assumption is okay. For other ones, and one that I have some concern with, or raised concern with in the past is, for example, the Bridge Operating Statement. I think low risk is even not the right way to put it. They are potentially low impact, if applied in an area with, say, minimal riparian habitat. But their impact is relatively certain, if you are going to place a bridge over top of the riparian zone, there will not be riparian vegetation growing under that bridge. If it's just one small bridge in the middle of nowhere where there's limited riparian impact, it's a reasonable approach. it's an area with significant development, there's large riparian trees that are important components of that stream, and you start to apply that operating statement, I think that would not be categorized as low risk. That's starting to get into the higher cumulative impact category. Q Okay. So the Bridge Operating Statement, are there any other concerns that you have with it, other than just the fact that you could have several bridges in sequence and that would have a significant effect, or it could -- bridges could be put in populated areas where there's other impacts ongoing? MR. SALOMI: Well, I think one of the items that people have picked up on is it says explicitly, if you follow this guideline, you will not be creating a harmful alteration. And it kind of sets an indication of what might be or might not be a harmful alteration. Some people have said, well, typical two-lane bridge and right-of-way is about, you know, 20 metres. So we can put in a two-lane bridge, have 20 metres of footprint over a creek and that's not really a HADD, and they pointed that out as an example. And I think that's a dangerous statement to make and a dangerous interpretation for individuals to make. example, many city lots aren't much wider than 20 metres. The suggestion is you can maybe not have 20 metres of riparian in your backyard anymore, and it's not a HADD. So there's dangerous interpretations or assumptions that come out of

1 that document.

- Q What about clearing zones associated with the operating statements, is that -- with the operating statements for bridge construction, is that a problem?
- MR. SALOMI: Well, you know, if a bridge is put in initially with compliance with the operating statement, it might have minimal impact if there's minimal trees, but you then start getting into things like operational phases of that bridge, where the local government or highways department that's operating that bridge would say, "Well, the trees beside it are leaning towards the bridge, now they're hazards," or "We need to clear it a little bit wider for sight lines." So I think there's a tendency to underestimate the potential impact from even something as small as a two-lane bridge.
- And what about planning. How does the planning process work in with the use of these operational statements?
- MR. SALOMI: Well, that's another challenge with that particular operating statement. In many urban areas, there's potentially significant road networks that are established, and without some encouragement or regulatory role, there's a potential for abuse of using that operating statement to avoid proper planning.

The other thing is historically, at least in the Lower Fraser area, local governments were aware that if they were going to be putting in a bridge, they would need an authorization from DFO. It would encourage them to plan around that, or we could use it as a way to say to a local government, "Look, we know you're going to have to put bridges in there, that will require an authorization." We're not going to be inclined to issue an authorization if the works associated with that bridge aren't up to standard. So it kind of got us out of, I will say, a regulatory hook or tool.

- Q And, Mr. Crowe, can you talk to us a little bit about small boat moorage, the Dock Operating Statement that I guess would have a little bit more use in your area of the province.
- MR. CROWE: This is an example of an operational statement, yeah, that has been problematic in the

B.C. Interior. Essentially, the problem is that our lakeshores are very important for fish rearing and spawning, and therefore it's important to maintain them in a very healthy, productive condition. But there's a directly competing interest, which is using these same areas for recreational values, where individuals want to derive personal benefit and enjoyment of their property, and, you know, respect and understand that. And quite common with recreational properties is a desire to have a dock.

So we determined that we could not keep up with the considerable number of referrals for docks and using an operational statement to try to streamline that referral process was initiated. The result was that we set some standards around the size of docks and some general guidance on locations, but the challenge is that they can be placed on spawning grounds, and as well in close proximity to fish rearing, and we don't have the ability to, because we're not looking at them, we cannot actually direct a dock's location, relative to known spawning areas. We encourage an individual to do some research, to find out if their dock may be in proximity to spawning habitat, and but it's not -- they're not compelled to do so.

Additionally, that there is a high likelihood that that dock could be in proximity to important rearing habitat, and but that's not actually, avoidance of important rearing habitat is not a condition.

Added to that, that same operational statement actually says that you can build a boathouse on the foreshore and including the removal of trees and making modifications to construct such a boathouse. So we've -- that also is contrary to many of our objectives in terms of protecting the foreshore and the in-water habitat.

So it's an operational statement that is problematic and, I mean, we're realistic here, and that's that there is more work than the Department can manage as a Habitat Management Program, and we need to find ways to manage the elements of the lower risks spectrum of our business in an efficient and effective manner. But, yes, there's some operational statements we believe are

1 continuing to contribute to the ongoing cumulative incremental harm to habitat.

- Q And does the Pacific Region have the ability to modify these operational statements for the Pacific Region, or would you simply be able to add additional ones in the Pacific Region?
- MR. CROWE: No, if we -- we can have these operational statements modified or deemed to not apply in our region. But, yeah, it's a -- there is an administrative process within the Department that we go through to have those changes made.
- Q All right. And have any attempts been made to change either the Bridge Operating Statement or the Dock Operating Statement?
- MR. CROWE: They -- some changes to the Dock
 Operational Statement were already made. There
 was actually not -- there were no limitations on
 how close these docks were to -- could be to each
 other. So, for example, a strata development with
 20 properties could have -- each property could
 have its own dock, and there's now a minimum
 distance requirement between docks. So we've had
 that change made. These other changes have not
 been made yet.
- Q And on the Bridge OS?
- MR. SALOMI: Yeah, there's been some modifications to the regional OS.
- Q But the problems that you talked about today are still not addressed in the existing OS?
- MR. SALOMI: No, those -- those fundamental problems, I think, are hard to address.
- Q Okay.

- THE COMMISSIONER: Ms. Baker, you may be coming to this, or your learned friends may be covering it, but just so I understand the context in which these answers are being given this morning, the document on the screen at the moment I think has been marked as Exhibit 1002.
- MS. BAKER: Yes.
- THE COMMISSIONER: And it is dated 2004, which the evidence I heard this morning I understand is about the time that changes are starting to happen in terms of downsizing and other --
- MS. BAKER: Right.
- THE COMMISSIONER: -- adjustments being made. In this particular document there is reference to both the requirements for the province, as well as for DFO.

And the steps that have to be taken with respect to both the province and DFO are set out 3 thoroughly in this document. Do I take it from these recent answers that the content of this 5 document you've had marked as an exhibit, and the 6 steps that persons are supposed to be taking, as 7 outlined in here, are no longer relevant? 8 MS. BAKER: The document that's on the screen is a 9 provincial and DFO BMP document, not an 10 operational statement document, which is what 11 we've been talking about just now. 12 THE COMMISSIONER: No, but what I was trying to 13 understand is that, for example, in this document 14 on page 26 - I'm not sure if it will be the same 15 page 26 - yes, just at the bottom there, it 16 explains how DFO is involved in what persons are 17 supposed to be doing and the steps they're 18 supposed to take. Do I take it that this has been 19 all changed, altered, modified? 20 MS. BAKER: I'll let the witnesses answer that. 21 MR. SALOMI: If we can just have a moment to review 22 this. 2.3 So, yes, this, leading up to 2004 and for the 24 time around 2004, this would be an accurate 25 description of the approach taken. And then 26 sometime after 2005 and EPMP, there was a number 27 of national and regional operating statements that 28 were put in place, which were essentially an 29 alternate to following this approach. 30 inconsistent, necessarily, with this approach, but 31 they were standalone documents. And you pulled up 32 that operating statement, read it, designed your 33 project to meet it, you were in theory good to go 34 without being in conflict with the Fisheries Act. 35 THE COMMISSIONER: So if I'm a member of the public, 36 and I want to understand the jurisdictional 37 differences between the province and the federal government requirements, I wouldn't be using this 38 39 document. I'd have to go to something else. 40 MR. SALOMI: I think this document is still relevant to 41 how DFO might approach proposed works. 42 operating statements are an alternate. 43 not identified in here. And we have updated our 44 website recently to provide a bit more of a 45 detailed approach to that question.

MR. CROWE: Mr. Commissioner, what I would offer is

that this is still a relevant statement and

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approach. What we have done is we have taken specific work activities and said that there is now a new stream for how those will be managed. So if your work falls within these 19 operational statements, you do not need to go through this process. You can just apply that --

THE COMMISSIONER: Oh, I see.

MR. CROWE: -- that operational statement. determine your project type, and then determine if you can use, you have to go through the traditional review process, or you can just apply this operational statement.

THE COMMISSIONER: I see.

MS. BAKER:

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- Yesterday we talked about environmental review committees within local governments, and also reviews of official community plans that DFO would become involved in. Did that change around this time when there were reductions and changes, and the EPMP was brought in, the other issues we've discussed this morning came into play?
- MR. SALOMI: Yes. So through the '90s and into early 2000, virtually any significant work in or about a stream was referred to the province, either as a notification or formal application under the Water Act. And so the province basically was in a position to touch all those, or respond to all of those. We worked with the province at DFO to share that workload, in that Fisheries and Oceans staff would often deal with the more significant proposals, or ones that would most likely require a formal Fisheries Act authorization.

There's still a significant workload and there was recognition that local government had a big part to play in a lot of that workload. so what we did was to form environmental review committees where the province, DFO, the municipal planning, engineering and approvals groups would get together and review packages of maintenance activities, development proposals, et cetera. it was a much more streamlined approach. also useful because it gave us a working relationship with individual in local government. We could educate each other about our objectives. We could identify innovative ways to deal with things. It gave us a window into local government planning. We would often discuss broader scale

1 plans at that table. It was quite efficient. When at some point, that was around 2002, 3 that the province decided they were no longer going to be reviewing all those notifications in 5 detail, they also decided that they would not 6 provide that review role at an ERC. And so the 7 ERC foundation fell apart to some extent, and it 8 was often just DFO and the local government that 9 would meet, if the local government still felt the 10 need. 11 So in your area, you described how you had been 12 involved in many environmental review committees 13 in the Lower Fraser. Have they all, have you

still participate in some?
MR. SALOMI: We still participate in some. Some are fairly active. Others are a lot less regular and some have discontinued.

stopped participating in those entirely, or do you

- Q And do you continue to work with the province on developing best management practices as we discussed earlier?
- MR. SALOMI: I can't think of any significant efforts around that over the last five years at least.
- Q Could I have Exhibit 662 brought up. This is a memo that was drafted by Jason Hwang, he identified this earlier in April 5th in this inquiry. Are you familiar with this memo, either of you?
- MR. CROWE: Yes, I am.
- Q Okay. And, Mr. Salomi?
- MR. SALOMI: I have read it at some point, yes.
- Q All right. Does this, Mr. Crowe, does this reflect your views at the time?
- MR. CROWE: Yes, it does. I am in agreement with it.
- Q And, Mr. Salomi?

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- MR. SALOMI: Yes, for the most part.
- Q Okay. There's one line in this document I just wanted to ask you about. In the second paragraph, it says that:

EPMP and staff reductions have reduced our ability to engage with proponents. Meeting the regulatory minimum is not as favourable for fish habitat as what we used to be able to which was to get the lowest viable impact.

Can you explain what that means? I guess, Mr.

Crowe, you might be best able to explain what that means.

MR. CROWE: Essentially what it means is when we engage

MR. CROWE: Essentially what it means is when we engage directly with proponents, we are able to understand the details of the development plans, assess what the likely impacts are to the project, to fish and fish habitat, and set expectations, usually through some form of written guidance on what we expect of them to avoid harm, or mitigate, or compensate for effects to habitat. So getting the lowest viable impact is that engagement in negotiation to minimize the overall effect.

Streamlining tools that draw us out of that direct engagement, essentially is that -- and provide a guidance document to essentially act as a surrogate for that detailed review and comment, is what is meant by the regulatory minimum. And that the opinion is that if we are relying on a tool to deliver regulatory minimum, we will not get the same effects as previously when we had more staff and more direct engagement.

- Q And, Mr. Salomi, is this, when you were talking about the Bridge Operating Statement and the lack of ability now to get engaged in planning, is that a reflection of the same concern?
- MR. SALOMI: That would be a good example of my interpretation of what is written in the paragraph.
- THE COMMISSIONER: Can you just remind me, Ms. Baker, of what **RAR** is?
- MS. BAKER: That's the *Riparian Area Regulation*, which we're going to get into in quite a lot of detail soon.
- THE COMMISSIONER: Can I just ask the panel this question. Mr. Crowe, you mentioned, and I think it would not be a secret to say that the growth that we've experienced in the Lower Mainland, as well as in the Interior, appears to continue with regard to population growth and activity. And you both mentioned the provincial government's involvement, and this document mentions local governments, and says "not meeting the spirit and intent", et cetera. I am going to assume that the challenges faced by DFO regarding, I think, using your words, "We have more than we can manage." I think that probably would apply to the provincial government counterparts that you have, as well as

local government. Is the cooperation between local, provincial and federal agencies, who are doing the work they're doing, essential to be able to manage the challenges that are being faced by the growth and population and greater activity around streams, and so on? Or can you each do it on your own? I have a sense that you were cooperating at one point, but that seems, at least in the last five years, to not be as strong.

The landscape we're trying to manage is, MR. CROWE: you know, for our direct interest to protect fish and fish habitat, overlaps with many other agencies, jurisdictions and responsibilities and objectives between agencies, as well as levels of government. And no one can work in a stovepipe in this field, where it's essential for the purposes of good governance and expectations of the public that government cooperate and try to, wherever possible, ensure that we act in a coordinated and cooperative manner. And it also -- so therefore, it's incumbent on when we're dealing in an area where jurisdictions overlap and objectives often are somewhat similar, or even diametrically opposed, that we do our utmost within government to try to cooperate. So essentially wherever possible, it is we do try to work together.

It also speaks to the fact that where our outcomes are somewhat similar, our objectives are quite similar, it can be beneficial to every agency to cooperate and try to figure out what the best way to get it in an outcome is. Sometimes it may be using the **Fisheries Act**, and it may be sometimes other times using a local government objective.

With downsizing, through the early to mid-2000s, I'd say the province, as well as ourselves, had to retrench and focus on what our core objectives was, with the realization that that did create some dysfunction for everyone, and that we have been building back some of those cooperative relationships, since the mid to later 2000s.

But with regards to local government, I'd say the province and DFO have very similar objectives, and we find it relatively easy to cooperate and do so as much as possible. Local governments, and I'll speak to the Interior, it's a bit more of a challenge, because in my opinion, local

governments often have an objective that is quite contrary to at least my agency's objectives. They're interested in community development, servicing the desires and wishes of their constituents, and that often means expanding development activities in close proximity to water to meet recreational or private landowner or commercial objectives. And with pressures from those groups on local governments, they don't always necessarily, they're not always able to work as easily with ourselves as we are with the Where possible, we definitely try to province. formulate those arrangements, such as ERCs, but in the Interior we have not had the same degree of success.

THE COMMISSIONER: Thank you.

MS. BAKER: Thank you.

- Q If I can ask for document 6 on the Commission's list to be brought up. This is a review paper that was prepared, I understand, by you, Mr. Crowe, in 2007. Do you recognize that document?
- MR. CROWE: Yes, I do.
- Q Okay. And this sets out the staffing changes between 2003 and 2007, and it shows, just looking at the column on the first page, a reduction of 20 FTEs, full time equivalents, down to eight; that's correct?
- MR. CROWE: That's correct.
- MS. BAKER: Could I have this marked, please.
- THE REGISTRAR: Exhibit 1003.

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EXHIBIT 1003: BCI Mid-Fraser/Thompson/ Okanagan Habitat Management Section Program Review, January 2007

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MS. BAKER:

- Q All right. And --
- MR. CROWE: And sorry, I'll just add, and we have actually gone down further since then.
- Q Okay. What is your current staffing?
- MR. CROWE: Seven.
 - Q And this was a result of what? Maybe you can just explain why the staffing reduced so much. I know you've already explained in a general way, so if that's the answer, we can move on. But if there's some more detail you want to give...
 - MR. CROWE: No, it was the discontinuation of some B-

based funding, longstanding B-based funding programs, ERC and, yeah, the general redistribution of resources within Pacific Region and, you know, larger financial decisions in DFO. All right. At page 9 of this memo -- well, so, first of all I'll just explain, this memo sets out, leading up to page 9, the different staff

out, leading up to page 9, the different staff positions and outlines the workload that they have after the reductions in staffing, correct?

after the reductions in staffing, correct?

MR. CROWE: Yes.

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- Q It doesn't set out your particular workload, and you're one of the people that's been left in that group, so I take it you had to pick up a lot of the work that was being done by some of the people who left?
- MR. CROWE: That's correct. Though in my role, it's more about trying to balance and manage and apply judgment and how we're going to direct our day-to-day resources and make long-term planning decisions with my manager and counterparts.
- Q Okay. Page 9 of this document sets out an overview of program changes over the past year, and I take it that these -- has there been any substantive change to what's set out in this document since 2007?
- MR. CROWE: I wouldn't say substantive. I should also explain that this is a time where it was sort of a perfect storm of converging challenges. -- the province was going through changes and downsizing, we were going through changes and downsizing. We were developing new program delivery tools, such as through EPMP, and we were putting a lot of our direction in trying to actually create new tools, risk management frameworks, triaging systems, the operational statements. At the same time, the development sector was escalating, so declining re capacity and increasing workload was a real problem for us. So this is sort of an over, you know, a one-page summary of the things that we were essentially having to change in our program, was a one-page synthesis of everything we were doing to try to manage those compounding challenges.
- Q Just you said there hasn't been any significant changes. I just want to go to a couple of them. A number of bullets down, I'm not going to try and count them, you say that:

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We no longer participate in local government foreshore planning initiatives; [such as] CSRD, Chase, Kamloops and Sicamous.

Fraser sockeye, but -- MR. CROWE: Yes.

Q -- CSRD is certainly, and Kamloops may be as well. Has that changed?

Now, not all of those areas are relevant for

MR. CROWE: Yeah, actually, I'm glad you brought that one up, because that is one change, and that a little while after this document was written, the primarily provincial leadership, the Shuswap Lake Integrated Planning Process was initiated amongst all levels of government and other groups to try to deal with the very substantial problems with development and the rate of development and nature of development within the Shuswap area. So understanding just how what I would describe as a mess it was in terms of the character and nature of development in the Shuswap, it was essential that we get on board with the provincial initiative to try to deal with this in a more

coordinated manner between governments.
Okay, that's great. And I will come back and talk about that program in a bit more detail. But another bullet here which I wanted to ask you about, it says:

[Ministry of Environment] provides almost no assistance to DFO in the management of HADDs in resident water. There are even examples of [Ministry of Environment] causing delays by trying to keep them engaged to provide advice.

What does that actually mean? That's not clear to me.

MR. CROWE: Sorry, I appreciate I wrote this document, but I can't -- could you point me to the bullet?

Q Oh, it's just we were looking at the CSRD bullet, it's just three below that.

MR. CROWE: Oh, thank you.

This related to some of the provincial changes where they were not performing the same role that they had done historically with regards to giving advice or direction to the Department of

Fisheries and Oceans in -- when I say "management of HADDs", there's essentially an arrangement where the Department of Fisheries and Oceans is a lead regulator for development activities in salmon-bearing waters, and the province is a lead agency in resident fish-bearing waters. But only the Department of Fisheries and Oceans can authorize a HADD, harmful alteration disruption or destruction of fish habitat.

So essentially in resident fish-bearing waters, if a development is proposing one of the -- a HADD, the province would take the lead in the management up until the point it would actually -- and the authorization would be issued, and then the Department of Fisheries and Oceans would issue the authorization. With provincial changes, the province was no longer providing that same role, and expecting DFO to engage far more greatly in the review and management of those HADDs in resident fresh water. So essentially we were stepping into the province's traditional role in those resident freshwater situations.

That has somewhat adjusted again in negotiations with the province, and I think the understanding by the province is that was actually problematic for meeting their fisheries objectives. They have in, I can't say everywhere, but in large parts of the area that I'm responsible for, the province has stepped back into that role.

- Q All right. And when they were out of that role, it sounds like it's just dealing with non-salmon-bearing waters, but did that have any impact on your ability to manage the salmon-bearing waters?
- MR. CROWE: The consequence of having to step into resident fish habitat project reviews was that it left us less resources to apply to salmon-bearing waters. So essentially it was a dilution of our -- further dilution of our effectiveness.
- All right. And then the last couple of bullets talks about the fact that there are fewer stewardship programs resulting in a lack of public awareness, knowledge, and voluntary protection. Then you also refer to the fact that you're not considered a partner with ENGOs any more. And if we just flip the page, there's one more that's sort of a related concept where you talk about a

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PANEL NO. 42
In chief by Ms. Baker (cont'd)
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reduced field role which is resulting in more
            infractions. So maybe you can talk to us a little
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            about that. What's the impact of sort of dropping
            back in the field and dropping back in terms of
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            stewardship and partnering with the ENGOs.
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            does that have an impact?
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       MR. CROWE:
                  When you have a field presence and you're
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            engaged with industry sectors and the public,
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            there is an awareness of us and our objectives,
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            and the need to protect fish and fish habitat, you
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            know, essentially familiarity breeds knowledge.
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            When you are no longer engaging with individuals
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            in the same manner as frequently, and people don't
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            see you as much, there is a tendency to forget
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            about your objectives and a fall-back towards
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            practices that would, you know, we had thought
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            were managed, and the people, we were finding that
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            there was tendencies towards increased rates of
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            development, or actions that were resulting in
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            increased harm to habitat. So essentially not
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            being in the field, not maintaining a presence,
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            resulted in an increase in reports of occurrences
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            of harm or of potential violations of the
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            Fisheries Act.
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            All right. And, Mr. Salomi, is there anything you
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            wanted to add to these comments?
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                    The B.C. Interior office had a more
       MR. SALOMI:
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            significant increase in staff and then drop in
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            staff.
                    The change in the Lower Fraser was not
30
            quite as dramatic, but we face similar challenges.
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       MS. BAKER: Mr. Commissioner, I'm going to move next to
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            RAR, the Riparian Areas Regulation, so this would
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            be a good time to take the break, if you would
            like.
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       THE COMMISSIONER: Has this been marked, Ms. Baker?
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                  Yes, it was marked as Exhibit 1003.
       MS. BAKER:
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       THE COMMISSIONER:
                          1003.
                   Wasn't it? Yes.
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       MS. BAKER:
       THE COMMISSIONER: And that's Tab 6 of Commission
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            counsel's...
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       MS. BAKER:
                  Right.
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       THE COMMISSIONER:
                          Thank you very much.
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                   Thank you.
       MS. BAKER:
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       THE REGISTRAR: The hearing will now recess for 15
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            minutes.
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(PROCEEDINGS ADJOURNED FOR MORNING RECESS)

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1 (PROCEEDINGS RECONVENED) 2 3 THE REGISTRAR: Order. The hearing is now resumed. 4 MS. BAKER: Thank you. Mr. Commissioner, I'm finally 5 going to have some questions of Stacey Wilkerson, 6 who's been sitting here patiently for the last two 7 days. 8 9 EXAMINATION IN CHIEF BY MS. BAKER, continuing: 10 11 Ms. Wilkerson, we're going to be dealing now with 12 the Riparian Areas Regulation and you are the 13 coordinator for the province since 2007? 14 MS. WILKERSON: Yes, I am. 15 First of all, I'm just going to ask you to identify the regulation because I think it might 16 17 be useful to have that before us. 18 MS. BAKER: That's in Tab 3. 19 And this is just to identify, this is the 20 regulation that you are coordinating the 21 implementation of? MS. WILKERSON: Yes, it is. 22 23 MS. BAKER: I'll have that marked, please. 24 THE REGISTRAR: Exhibit 1004. 25 26 EXHIBIT 1004: The Riparian Areas Regulation 27 28 MS. BAKER: 29 All right. Now, when exactly was the Riparian 30 Areas Regulation brought into force? I understand 31 it was originally planned for 2005 but did that 32 happen? 33 MS. WILKERSON: It was planned for March 31st, 2005, and then a decision was made to give local 34 35 governments an extra year to get the appropriate 36 bylaws into place to implement. So it actually 37 came into force March 31st, 2006. 38 Okay. And it replaced the Streamside Protection 39 Regulation that had been place previously? 40 MS. WILKERSON: Yes. 41 MS. BAKER: Okay. A couple of corrections that need to 42 be made in the PPR, which I think I'll just do 43 now. If you could bring that up, it's PPR14. 44 if we can go to page 21 of that document? 45 All right. Paragraph 42 talks about the 46 application of this regulation and it says:

The RAR applies to municipalities and regional districts in the Lower Mainland, on much of Vancouver Island, in the Islands Trust area and in parts of the Southern Interior; adoption is voluntary for local governments.

And that would be local governments which are not otherwise subject to the regulation; is that right?

MS. WILKERSON: That's right.

12 Q All right. And the regulation itself sets out
13 which municipalities and districts are subject to
14 the regulation expressly. And that can be found
15 in section 3(1) of the regulation itself. Right?
16 MS. WILKERSON: Yes, that's right.

MS. BAKER: Thank you. And then, sorry to jump around like this, if you could pull the PPR back up on the screen?

Paragraph 42, talking about where the regulation does apply in a physical sense. And the last sentence of paragraph 42 sets out all the physical areas that it does apply in. States, the very last clause that it does not apply to estuarine areas. But it also doesn't apply to marine areas; is that correct?

MS. WILKERSON: That's correct.

MS. BAKER: Thank you. And one last correction. On paragraph 44 of the PPR. Actually, the part of that paragraph that's on page 23. If you could keep moving to the next page. Oh, sorry, paragraph 45. So move to the next page.

Okay. Sub (b) that you see on the screen there says, "that its bylaws and permits under Part 267 of the Local Government Act." It's actually supposed to be "Part 26"; is that right?

MS. WILKERSON: That's correct.

- Q Okay. Thank you. Now, I'll just ask Mr. Crowe and Mr. Salomi, was Canada involved in the development of -- you know what? Before I go there, I'm just going to ask Ms. Wilkerson to just explain what the purpose of RAR is just in a general overview sense to set the stage for these questions.
- MS. WILKERSON: The main purpose of RAR is to provide directives to local governments to protect riparian areas in accordance with the regulation.

- Q Okay. And that would include developing setbacks to protect lakes and streams and things like that?

 MS. WILKERSON: That's right.
 - Q All right. And so Mr. Crowe and Mr. Salomi, was Canada involved in the development of setbacks under RAR?
 - MR. CROWE: The determination of where the setbacks should be was sort of based upon a science paper that was crafted or written by both provincial and DFO scientists. And so yes, therefore, DFO was engaged.
 - Q All right. And is that Science paper at Tab 15 of the Commission's documents? It's titled, "The technical basis of zone of sensitivity determinations under the detailed assessment procedure of the Riparian Areas Regulation".

MR. CROWE: Yes.

Q And that's, as you see at the bottom, it's authored by the Ministry of Environment, Fisheries and Oceans Canada and it's dated September 2007?

MR. CROWE: Yes.

MS. BAKER: Okay. And I'll have that marked, please. THE REGISTRAR: Exhibit 1005.

EXHIBIT 1005: The technical basis of zone of sensitivity determinations under the detailed assessment procedure of the Riparian Areas Regulation

MS. BAKER:

- Q So once DFO was involved in that paper, was it involved any further in developing the standards under the regulation or was that left to the province?
- MR. CROWE: No, my understanding is that DFO was actively engaged with the province in development of the regulations. I would say I would be happy to have Ms. Wilkerson give her opinion but the way I would describe was that the province was the lead in the development of the regulation and DFO provided a support role.
- Q All right. Is that your understanding?
- MS. WILKERSON: Yeah, I wasn't part of the process. My understanding is that a staff member from DFO or regional headquarters was quite involved in the development in the early stages.
- Q All right. Mr. Salomi, we talked about the 1992

development guidelines earlier and those
guidelines are marked as Exhibit 1001 now. Are
you content with the setbacks in the Riparian
Areas Regulation as compared with the 1992
development guidelines?

MR. SALOMI: It depends on the type of stream. The
Land Development Guidelines proscribe 15-metre

- MR. SALOMI: It depends on the type of stream. The Land Development Guidelines proscribe 15-metre from top-of-bank protection zones for most streams and 30 metres in the case of higher density development. The Riparian Areas Regulation applies different standards to different types of streams. And in many cases, for example, the smaller streams, the Riparian Areas Regulation suggests at least an initial riparian zone that's smaller than that proscribed in the Land Development Guidelines. And so your comment about am I content with it? I would say I'm not content with it in a significant portion of the smaller stream classes.
- Q And why not? What's the concern that you have? MR. SALOMI: In short, I think the width proscribed in the Riparian Areas Regulation are inadequate to protect the stream and the stream functions in the riparian zone.
- Q Primarily with small streams?
- MR. SALOMI: Yes, and some of the steeper streams.
- Q Okay. Ms. Wilkerson, back to the operation of the regulation itself, there is a Schedule of Assessment Methods that's referenced in the Regulation. And that is in Tab 11 of the Commission's documents. So this is a companion to the Regulation itself; is that right?
- MS. WILKERSON: That's right.
- MS. BAKER: All right. And I'll have that marked, please.

THE REGISTRAR: Exhibit 1006.

EXHIBIT 1006: Riparian Areas Regulation Assessment Methods

MS. BAKER:

- Q What is the Assessment Method Schedule used for? How does that work?
- MS. WILKERSON: This is the methodology that a qualified environmental professional must follow when carrying out a Riparian Areas Regulation assessment. So it describes or proscribes how a

qualified environmental professional, we call them QEPs, how they would establish the setback and then it provides a set of mitigative measures that must be used to maintain the integrity of that setback. So these measures include assessments around danger trees, wind throw, slope stability, encroachment prevention, storm water management, floodplain concerns and sediment and erosion control.

- Q Okay. Perhaps you can explain how the QEP works within the Riparian Areas Regulation. What is the theory of this Regulation?
- MS. WILKERSON: Well, it's a professional reliance model. And that means that before a proponent is able to develop, they need to hire an independent qualified professional to undertake an assessment according to this methodology and then that assessment comes to the province, DFO and the local government before they can get their development approval.
- Q Okay. And is the Riparian Areas Regulation implemented consistently across all regional districts?
- MS. WILKERSON: No, it's not.
- Q Why is that?
- MS. WILKERSON: There's several approaches that local governments can take. We have some requirements. They need to have a means of triggering an assessment or of attaining assessment. They need to have a means of basically triggering the assessment when the development is proposed. But they can do this in several different ways. So local governments have chosen different ways to do this. They can also choose the tools that they want to use to implement so they can use development permits. They can use zoning bylaws, as an example.
- Q Okay. And has the province developed a guideline to assist local governments in implementing this Regulation?
- MS. WILKERSON: Yes.
- Q Okay. And that's at Tab 4 of the materials?
- MS. WILKERSON: That's correct.
- 44 MS. BAKER: All right. I'll have that marked, please.
- THE REGISTRAR: Exhibit 1007.

1 EXHIBIT 1007: Riparian Areas Regulation 2 Implementation Guidebook 3 4 MS. BAKER: 5 And this document sets out the roles and 6 responsibilities of the different parties, 7 including DFO, and the province and local 8 governments; is that right? 9 MS. WILKERSON: That's correct. 10 Okay. I'd like to look at the different 11 assessment methods that are contained in the 12 schedule to the Regulation. 13 MS. BAKER: So if we can turn to Exhibit 1006 again. 14 Page 6 of that document identifies at the top 15 there that there's two assessment methods, a "Simple Assessment" and a "Detailed Assessment". 16 17 Can you explain, what is the Simple Assessment 18 method? 19 MS. WILKERSON: The Simple Assessment is the assessment 20 that was used originally under the Streamside 21 Protection Regulation. And because it had already 22 been adopted by some local governments, it was 23 kept for the RAR as well. So the Simple 24 Assessment looks at whether the stream is fish-25 bearing or not. 26 It looks at whether it's a permanent flow or 27 not and how much vegetation or potential 28 vegetation the area would be capable of supporting 29 based on permanent structures that are already 30 there. The Detailed Assessment was designed 31 specifically for the Riparian Areas Regulation and 32 it's a little more site-specific based on stream 33 characteristics. And it provides a setback and then the measures that I had described earlier. 34 35 So those are the main two differences. 36 Okay. And who decides whether a Simple Assessment 37 will be used or a Detailed Assessment? 38 MS. WILKERSON: If a local government's already adopted 39 the Simple Assessment in their bylaw then that's

the site.

Q All right. And will a Detailed Assessment always result in smaller setbacks than you would get using the Simple Assessment method?

the one that will be used. Otherwise, the QEP,

the Qualified Environmental Professional, will be

the one that decides what's more appropriate for

MS. WILKERSON: Not always, no.

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- Q Okay. And are there any other benefits to using the Detailed Assessment? Like is that where we hear about the mitigative measures, for example, that you referred to earlier?
- MS. WILKERSON: That's right.

- Q Okay. And I take it just reflecting the comments that Mr. Salomi had earlier, that a small stream will typically have a smaller setback using the Detailed Assessment than under the Simple Assessment?
- MS. WILKERSON: That's right.
- Q Okay. For the witnesses, Mr. Crowe and Mr. Salomi, if a proponent of a project is compliant with this Regulation, I take it that means that there's an acceptance by DFO that there will be no HADD; is that right?
- MR. CROWE: That's what's described in the Department's "sign off or support of the Regulation".
- Q Okay. So does Canada have any involvement then in the permitting stage, or I guess the application of this Regulation? Does Canada get involved at all?
- MR. CROWE: Our primary role will be in the circumstances where a proponent is looking for a variance to the setbacks proscribed once doing a simpler Detailed Assessment. Yeah, DFO is the agency responsible for granting of variances. Local governments have some limited ability but our primary role is as it relates to consideration and granting of variances.
- Q Okay. So if we can just understand how this works. If a development applicant wants to do a project, they look to the Riparian Areas Regulation, they have a QEP who will come in and either use a Simple or Detailed Assessment to determine if there will be any HADD. And if it looks like there's going to be a HADD, they need to go to DFO for a variance on this project to allow it to be built in compliance with the **Fisheries Act**; is that right?
- MR. CROWE: Well, if they can comply with the SPEA, essentially --
- Q The SPEA is what?
- MR. CROWE: Streamside Protection Enhancement Area. So once a Simple or Detailed Assessment is completed, it'll determine essentially the line that the development should be set back from, from the

water body. And that zone between the water and the setback is defined as the SPEA, streamside protection and enhancement area. So DFO has agreed that if an assessment methodology is completed appropriately and development can stay outside the SPEA, there will, therefore, not be a HADD. So it's a surrogate for our review and approval process.

Okay. And how does DFO assess variance

applications? Is there some guidelines in place?
MR. CROWE: Yes, there's a range of circumstance. One
is an individual has a development intention which
whereby they want to be closer to the water than
the SPEA allows and they can come forward and ask
for a variance and we can make a determination if
we're going to grant it or not. There is a second
category whereby after identifying the SPEA, the
remaining parcel of property is so small because
of the parcel size or configuration that it's
literally not possible to put any kind of building
or use that property in any essentially manner.

And we have agreed to this principle of sterilization by which an individual has a right to use their property. And if the SPEA essentially sterilizes their property, they have the right to be considered for a variance so they can put something on their own land. So in those situations, we agree to that principle and, therefore, will likely grant a variance. But then it gets quite complicated, which is how far back, what is the location, size and configuration of that development? And if there's a HADD, then there's likely going to be an authorization with some form of compensation.

Okay. And there's a protocol that's a draft protocol, I take it, for assessing variance applications that DFO uses; is that right?

MR. CROWE: Yes, so there is --

 If you can just confirm that then I'll have it brought up on the screen.

MR. CROWE: Yes, there is a draft variance protocol. MS. BAKER: Okay. And that's in Tab 14 of Canada's

43 MS. BAKE doc

documents.

Q Is that the document that you're referring to?
MR. CROWE: That's correct, yes.

So I'll have that marked first and then maybe you can explain a bit about it.

MS. BAKER: Could you mark that, please? THE REGISTRAR: Exhibit 1008.

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EXHIBIT 1008: Protocol for Management of Riparian Area Regulation Variances Between the Department of Fisheries & Oceans and the Ministry of Environment

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MS. BAKER:

Q Go ahead.

MR. CROWE: Within understanding the principles and objectives of RAR and agreeing that in certain circumstances where there was a potential or likely sterilization of the property and, therefore, a person would have what we'd deem to be an undue hardship, we would agree to granting them a variance. When the Regulation was first passed, it was very confusing as to when a variance should be granted and there was a great deal of negotiation and discussion with proponents as to if they had the right to a variance, well, what does that mean in terms of the use of their property? And often an individual would be trying to build a building too close to the water, too large and essentially the effect would be substantial. As well as individuals were proposing and being supported by their local governments that they had an undue hardship and we'd deem them clearly not to have an undue hardship and, therefore, they did not have a right to a variance.

I'll use, as an example, an individual wanted a pool in front of their very nice home and the local government agreed that it was an undue hardship, that they did not have the right to have a pool. Another individual had a local government agree that if their building was set back further than their neighbours, who had developed historically and were closer to the water, that it was an undue hardship, that they did not have the same nice view that the other property owners would have by having their house set further back. And I could give more examples but clearly there was too much uncertainty as to what was meant by undue hardship and where properties were to be located, as well as size. So we essentially realized that we had to create an administrative

tool to help provide guidance, consistency and coherence to when variances were to be granted, as well as the location, size and configuration of developments. And essentially this is what this document does is it was a tool we created between DFO and the Ministry of Environment to provide essentially methodology within the methodology to provide that direction on how variances were to be managed.

- Q All right. And just in the interests of time, I'm not going to take you to the PPR, but I'll note that at paragraph 52 of the PPR, we made reference to this document but we don't identify it as a draft. And I just want you to confirm that this is still a draft document?
- MR. CROWE: Yes, as the RAR is essentially agreed to by Ministry of Environment, DFO and the Union of B.C. Municipalities, we still have not received agreement by the Union of B.C. Municipalities with regards to this variance protocol so essentially we're using it operationally as a guidance tool but it has not yet become protocol within RAR.
- Q And in the circumstances that you described where the local government was in favour of some of the variances that you described like pools or better views and that sort of thing, what was DFO's role? Did DFO have to agree with the local government or could DFO make its own decision on whether a variance should be granted?
- MR. CROWE: Essentially, we make our own decisions. Our decisions are not fettered but at the same time we do take others' opinions into consideration in our decisions and essentially have two different levels of government. We're coming out to two different positions. We felt that that was confusing for the public, for agency personnel, and, therefore, it was incumbent upon us to come up with a system, a tool to provide that coherence and consistency for all parties within RAR.
- Q Okay. The model under RAR is, as you said, a reliance on professional certification. Ms. Wilkerson, does the province have any power to reject a QEP's assessment or to prevent development, if the province is not satisfied with the QEP's assessment?
- MS. WILKERSON: Well, it usually depends on the stage

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that we receive it. For instance, as reports are submitted to us, if we see that the assessment methodology has not been followed or if the report is incorrect or incomplete, then we notify the local government that they're not in position to approve or allow the development based on this assessment. If the QEP has not followed the assessment methodology and they certified that they have, then they've made an incorrect certification and so the report basically can't be accepted. So at that point, if we inform the local government, then generally we have that sort of power in that sense. But otherwise, once a report has come in and the local government has carried on with the development approvals, then no.

- Q Okay. And the role of the province in trying to talk to local governments about whether they should accept a QEP assessment report, that's more of a persuasive role, I take it. The province doesn't actually have the power to say to a local government you cannot accept this report if it's been certified?
- MS. WILKERSON: Unless there are significant errors, but no.
- And as I understand it, the Riparian Areas Regulation, what it does is it prohibits a local government from allowing development unless the local government has received that certified QEP assessment report for the development, right?
- MS. WILKERSON: That's right.
- Q Okay. And then that report sets out the setbacks or the SPEAs --
- MS. WILKERSON: Yes.
- Q -- that are to be applied to protect riparian areas, right?
- MS. WILKERSON: That's right.
- Q And that report also sets out the assessment and methods that were used by the QEP in doing its assessment?
- MS. WILKERSON: That's right.
- Q Okay. Other than that, the Riparian Areas Regulation doesn't actually proscribe how the riparian areas protection should be implemented; is that fair?
- 46 MS. WILKERSON: That's fair.
- 47 Q Okay. So it doesn't say that the local government

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            must ensure that the SPEAs are protected in the
            manner set out in the QEP assessment report?
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       MS. WILKERSON: Well, in the Regulation --
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            It's in the binder at Tab 3.
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       MS. WILKERSON: -- section 6 of the Regulation directs
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            local governments here to protect riparian areas
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            in accordance with the Regulation.
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            And the Regulation simply requires them to get a
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            QEP assessment report?
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       MS. WILKERSON:
                      That's followed the methodology.
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            Okay. But it doesn't provide any requirement that
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            the local government monitor to ensure that the
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            QEP assessment report has been correctly
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            implemented --
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       MS. WILKERSON: No.
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            -- or anything like that?
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       MS. WILKERSON: No.
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            Okay.
                  And so to address that, I take it the
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            province in its guidebook, its implementation
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            guidebook, which is Exhibit 1007, has tried to
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            provide local governments with some guidance in
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            how they can actually implement and ensure that
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            these SPEAs are actually put in place and
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            protected?
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       MS. WILKERSON: That's right. It sets out a number of
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            tools and approaches that the local government can
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                 And they're just directed to use the powers
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            available to them under Part 26 of the Local
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            Government Act. So it's limited to that.
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       MS. BAKER: All right. And I'll just identify where
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            that is in the exhibit, which is page 38 and
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            following sets out the implementation tools.
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            That's at Tab 4.
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            Is that right?
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       MS. WILKERSON: That's correct.
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            Okay. And the enforcement tools are set out at
            page 52?
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       MS. WILKERSON: Correct.
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            Sorry. Actually, it begins at page 51. Sets out
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            all the compliance monitoring. And then the part
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            we're just looking at is the enforcement tools.
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            Okay. So the RAR itself doesn't require a local
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government to use any of these enforcement tools;

it's simply the quidebook tells them that these

are available to them and encourages them to use

them?

MS. WILKERSON: That's correct.

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- Q Okay. Has there been more involvement with Fisheries and Oceans and the implementation of RAR in the B.C. Interior than in the lower Fraser?
- MS. WILKERSON: Yes, I would say that's true.
- Q And do you know why that is?
- MS. WILKERSON: I would suspect it's because of the nature of the development in the two areas. As Mr. Crowe has described, the B.C. Interior has a number of large lakes and these lakes are very popular places for people to live and these lakes typically have very small lots that have been created. So these lots then often require variances and that's when DFO needs to get involved.
 - Okay. I'd like to turn to the subject of monitoring the effectiveness of the Regulation. So has there been an evaluation of compliance and effectiveness of the Riparian Areas Regulation?
- MS. WILKERSON: I'm sorry. Can you repeat that?
- Q Has there been any evaluation of compliance with the Regulation and an evaluation of the effectiveness of the Regulation in protecting riparian areas?
- MS. WILKERSON: Yes, we've started with compliance monitoring and we're currently developing an effectiveness monitoring plan.
- Q Okay. And are those monitoring strategies for both compliance and effectiveness within your job description?
- MS. WILKERSON: Yes.
- Q Is that where you work?
 - MS. WILKERSON: Yes, the oversight of them.
 - Q Okay. So starting with compliance, in the first years after RAR was implemented, what kind of compliance monitoring did B.C. do?
 - MS. WILKERSON: Well, in 2007, we monitored every report that had been submitted to date so we hired a crew to go out and look at every assessment that had been submitted. In the years following that, we used the data we collected to help inform our monitoring strategy and then we then monitored within this compliance monitoring framework that we had developed from that.
 - Q And you said you went out to the sites. Did you also look at the QEP reports?
- MS. WILKERSON: Yes. So for the first three years of implementation of the RAR, we looked at every

report that was submitted as a paper audit. So we were checking essentially for correctness and completeness of the reports. After three years, we moved to just an audit function where we looked at 20 percent of the reports because we were comfortable that we'd gotten to the level of compliance with reports that we felt comfortable with.

- Q And the QEP report reviews and the site visits, was that done in both the lower Fraser and the south coast generally? Like was it done in all areas?
- MS. WILKERSON: Yes.

- Q Okay. And for the site visits, does a property owner have to give the Ministry staff that are doing the site visit inspections access to their site to see whether they complied with the assessments?
- MS. WILKERSON: Well, we would approach it, we would explain why we wanted access to their property. And generally, people are cooperative. If they had concerns or decided that, no, they didn't want us on their property, then we would work with the local government who has the authority to go onsite to check with bylaw compliance. However, if we felt that there was concerns because there was an infraction with the Fisheries Act or Water Act, then we could send conservation officers. However, this didn't become much of an issue. The first summer when we looked at every report, I can't recall one where somebody's flat-out refused us.
 - Okay. We have in the materials a document which is at Tab 13 and it's titled "Compliance with the Riparian Areas Regulation Report on Monitoring Activities for Assessments Submitted in 2007". And it's dated May 2009. Are you familiar with that document?
- MS. WILKERSON: Yes.
- MS. BAKER: Okay. Can I have that marked, please? THE REGISTRAR: Exhibit 1009.

EXHIBIT 1009: Compliance with the Riparian Areas Regulation (RAR) Report on Monitoring Activities for Assessments Submitted in 2007

MS. BAKER:

- O And what's this document?
- MS. WILKERSON: These are the results of our monitoring that we did in 2008. So we're always monitoring the reports that were submitted the year before. So this is all based on site visits. It's not just the reports. On paper, it's the site visits. And we looked at both developer and qualified environmental professional compliance.
- All right. And it's got "Draft" written across this document. Is there further changes expected to it?
- MS. WILKERSON: No, not too many. It's something that just needs to be put through our Ministry executive, our new Ministry executive.
- Q All right. And was a compliance monitoring plan developed as a result of this review?
- MS. WILKERSON: This uses our monitoring plan that we developed based on the monitoring we did the year previously. So this report describes the methodology that we use.
- Q All right. And was Canada involved in monitoring compliance or effectiveness of the Regulation?
- MS. WILKERSON: Not formally. Well, we have no formal arrangements in place. However, I understand that last year, DFO did contribute funds for our compliance monitoring and there may have been staff that have come to some of the site visits.
- Q Okay. And Mr. Crowe or Mr. Salomi, do you have anything to add on that, Canada's involvement in monitoring compliance or effectiveness of RAR?
- MR. CROWE: No, nothing really to add. We relied on the province to lead the monitoring of the regulation. I do believe Ms. Wilkerson's correct in stating that there was some DFO staff that had participated but I think it was definitely on an opportunistic basis.
- Q Is the compliance data that is made available to the province compiled and then made available to the public?
- MS. WILKERSON: Yes, once we removed the "draft" title, it will be made available to the public.
- Q Okay. So as of today, there has been no -- there's been no compliance data made public?
- MS. WILKERSON: Not yet, no.
- Q Okay. And just looking at -- or talking about the work that was done to understand compliance, did

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1 you assess that there was satisfactory compliance in 2007?

- MS. WILKERSON: No, we set our benchmark at receiving 90 percent compliance and we did not achieve that, no.
- Q Let's break it down then into components for local governments. Were local governments compliant in 2007 with the Regulation?
- MS. WILKERSON: If I recall, they were about 60 percent compliant.
- Q Okay. So what kinds of non-compliance did you find with local governments?
- MS. WILKERSON: So local government compliance, if they're not compliant, it means that they don't have the appropriate bylaws in place to trigger regulatory action and trigger the QEP assessment report. So there are a variety of ways they can implement at that point. The 60 percent means that 60 percent of the local governments did have something in place to implement RAR. The other 40 percent, how they were non-compliant varied so there's a variety of ways they might not be on a notification system. In other words, they wouldn't be able to receive the reports. Others just had absolutely nothing in place for riparian protection and others just hadn't brought in a bylaw that we felt was effective in meeting their RAR objectives.
 - So what was done to address that state of noncompliance for local governments?
- MS. WILKERSON: Again, it would depend on the nature of the non-compliance so we tried to sort of stratify them. It also depended on how concerned we were with that particular local government. Some local governments didn't have anything in place but there's one municipality that might have had one fish-bearing ditch compared to an entire regional district, like the Columbia Shuswap that has very important fish habitat. And I know that Mr. Crowe will be speaking later to an important initiative in that regional district, the SLIPP process.

But generally, depending on the local government, we would send advisory letters, warning letters, reminding of their obligations to implement. And a lot of it was staff working with staff in the local government to help them to provide support. We recognize that it takes a lot

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of time and effort to bring in new official community plans and development permits. So we were, you know, fairly patient but also tried to encourage them to implement as quickly as possible. And have you seem improvements since 2007?

- MS. WILKERSON: Yes.
- Okay. And then moving to QEPs, which, of course, stands qualified environmental professionals.
- MS. WILKERSON: Environmental professionals, yes.
- What was their compliance in 2007 when you did the review?
- MS. WILKERSON: Well, it shows in the report a pie chart that says 48 percent of the non-compliance was attributable to QEPs. That doesn't mean that 48 percent of the QEPs were non-compliant; it means that when we looked at the reports, 48 percent of the non-compliant situations that we saw were due to QEP errors. And these ranged from small errors that weren't as big of a concern as larger errors, such as omitting a watercourse that was on the property that they didn't notice.
- And what was done to address the non-All right. compliance that you observed with QEPs in 2007?
- MS. WILKERSON: So once we do these audits, we provide feedback. The specific feedback from the site to the QEP to ensure that they're aware of where the error occurred. So it's an education for the QEP. If it was a serious concern then we would have more serious discussions with them and with the association that they would belong to. qualified environmental professional, you must belong to an association that's governed under an Act in British Columbia. So there is that recourse through the association. We've used some of the information we've collected while compliance monitoring to improve the course we provide for QEPs.

So there's a training course offered through Vancouver Island University and it's offered throughout the province and it essentially teaches QEPs the methodology on how they're supposed to submit these assessments. So we've made modifications to the course to reflect some of these issues. And then we, from time to time, offer workshops for QEPs. We sort of tell them the top ten things that we've found in the field

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that have been an issue.

Q The course that you described at Vancouver Island University, is that a mandatory course for QEPs?
MS. WILKERSON: It's not mandatory, no.

- Q Okay. Has there been any improvement in the QEP reports or however you described that, 40 percent non-compliance, has that improved the issues, improved since 2007?
- MS. WILKERSON: Some of the issues have improved and with report quality, I would say it's improved since I started looking at them. I think in general there's a greater understanding of what RAR is and what it's trying to achieve. However, we're still seeing some significant non-compliance on the ground with respect to the measures that I talked about earlier.

And one of the reasons for this might be that the setbacks are based on really proscriptive methodology and they're almost always done correctly. With the measures, it's a little bit more subjective and it might require different expertise. So you know, we really rely on the QEPs expertise in that sense and we find that those are the areas that we're finding the most issues.

- All right. And Mr. Crowe and Mr. Salomi, what has been Canada's experience with the QEP reports? Do you have anything to add to the observations that Ms. Wilkerson has made?
- MR. CROWE: I think the one piece I would add is that I understand the concepts and ideas of professional reliance models and we apply them regularly in DFO. I think some classifications of QEPs are not necessarily appropriate for being engaged in assessment of riparian areas. And therefore, there is a number of QEPs that are, I think, not appropriate to be engaged in these assessments, particularly as it relates to I don't believe they're bringing the right values into their judgments.

And we would like to engage with the province in reviewing the types of professional classifications that could be participating in these assessments as QEPs. We have recently engaged with the province in identifying a number of QEPs that have been regularly creating problems in terms of quality reports and I think bringing

the wrong values to their positions. And we're hoping to remedy those situations through their colleges. That was recent conversations between Ms. Wilkerson, myself and others. I think the professional reliance model is -- I understand it but I think that some of the systems within RAR that maybe allow a little bit more too much discretional amongst some individuals has been a problem for us.

- Is the concern that the QEPs you're discussing are not having a professional objectivity and they're advocating for the developer or what's the problem that you're describing?
- MR. CROWE: That's a very good way to put it. I would say that they do not understand the nature of habitat management in terms of cumulative incremental harms. They're clearly acting as advocates for their clients to achieve a development objective that's completely contrary to the intention of RAR and our agency's mandates.
- Q And what about follow-up with the QEP reports? Are you satisfied with the ability that any of the regulatory agencies have to ensure that those reports are actually implemented appropriately on the sites?
- MR. CROWE: It's my experience that there is not sufficient strength within the regulation to require follow-up by the property owners and their QEPs to ensure that the measures that are required within these RAR reports are completed as they were intended and that it is an area that the Regulation -- and I would be happy to speak to the strengths of the Regulation but this is one area that definitely would need to be bolstered.
- MR. SALOMI: I'd like to add that the intention of the Regulation is not to have DFO or agency staff review the reports. And so your question about do we have issues with the reports, I would say we're not reviewing them for the vast majority of the ones that occur. My responsibility, they are submitted to the online system and we don't see the report. We don't get involved. So I think that's important to keep in mind when you say do we have issues with the reports. That being said, we do get involved in reports where there's a variance being requested.

In some municipalities or jurisdictions where

they might have a higher standard than the Riparian Areas Regulation, a QEP and a proponent might bring forward an RAR-detailed assessment, as rationale why they might be allowed to go closer to the stream. In those situations, we often do see problems with QEP reports. One of the big things, as was touched on by Stacey, the measures aren't well-describe in the guide or the assessment methodologies yet the measures are one of the key things to ensure that we have a long-term functional riparian area.

Other problems are QEPs perhaps missing watercourses, in ravine scenarios perhaps missing the seepage areas or the important contributing areas around the watercourse, those kinds of things.

- Q Moving on to developers. In your report, you talked about how 48 percent of the non-compliance issues could be attributed to the QEPs but you also said in that report that 52 percent could be attributed to developer issues. So can you explain what that's about and what's been done to address those non-compliance issues?
- MS. WILKERSON: Right. So by developer we're talking about either the landowner, which is generally the case, or it could be a larger developer. It's a little more difficult to address with developers because it sort of is a one-time deal for them. You know, if this is the landowner, this is the only time they're going to do a Riparian Areas Regulation assessment and so with a QEP, you know, if they continue to do them, we can sort of provide an education that way. With developers it's a little more difficult.

So some of the strategies we've used through our compliance monitoring it's an opportunity to talk to the developer and sort of explain this amenity that's on their property and how they can take care of it. So it's a stewardship approach. A lot of times with a developer, if they haven't implemented the RAR, you know, they've missed something in the assessment report that's really key and they don't really understand it. So we try to get QEPs when they're going out and doing these assessments to actually talk to the developers. We found that QEPs had done reports and never spoken with a landowner, which was, you

know, fairly shocking to us. So that's something that we've really focused on in the QEP course; make sure you talk to the developer and let them know, you know, why this is important.

If they're having significant issues when we go out with compliance monitoring, then that's when we would look at enforcement, I guess, under local government bylaw or the **Water Act** or the **Fisheries Act**. However, with compliance monitoring, there's the odd situation that we have come across that we've been quite concerned about but for the most part, as was discussed earlier, the really big issues we tend to find through complaints. So if something fairly egregious has happened, we tend to hear about it before we monitor.

- Q Okay. Then we've been talking about compliance monitoring. Has the province done anything to understand the effectiveness of the regulation? Has there been any effectiveness monitoring or assessment?
- MS. WILKERSON: We are currently developing the effectiveness monitoring plan as part of the overall provincial effectiveness monitoring strategy so we're fitting the RAR monitoring sort of within that methodology. We've currently got a contractor who's looking at ways that we could develop an effectiveness monitoring plan for the RAR
- Q And what's the timeframe for that being completed or implemented, I guess?
- MS. WILKERSON: I can't say how long it will take to implement it. The timeframe to develop it, I'm hoping that it won't be too much longer. Once this is developed, of course, it's going to have to be something that we'll probably have to work through a little bit more. We'll want to get DFO's support to make sure that they're in agreement with how we're tackling this.
- Q Okay. And you have an annual report on the implementation of RAR, which is at Tab 13 of the materials. It's dated May 5, 2009. It's also still in draft.
- MS. BAKER: It'll just be on the screen in a second. Tab 12. Is that right? Sorry.
- THE REGISTRAR: Well, you've already marked Tab 13.
 MS. BAKER: Tab 12.

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MS. WILKERSON: It's 12.
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       THE REGISTRAR: That'll be marked as 1010.
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       MS. BAKER: Okay. Well, let me ask the witness if she
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            knows what it is first.
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            Is this a report you're familiar with?
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                      Yes, I am.
       MS. WILKERSON:
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                  Okay. Now, let's get it marked.
       MS. BAKER:
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       THE COMMISSIONER: Then we'll take a break.
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       THE REGISTRAR: It'll be marked as Exhibit 1010.
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                 EXHIBIT 1010: Annual Report on the
                 Implementation of the Riparian Areas
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                 Regulation (RAR) 2008-09
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       THE REGISTRAR:
                       The hearing is now adjourned until 2:00
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            p.m.
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                 (PROCEEDINGS ADJOURNED FOR NOON RECESS)
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                       Order. The hearing is now resumed.
       THE REGISTRAR:
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       MS. BAKER: Thank you, Mr. Commissioner.
                                                 There was a
            couple of housekeeping matters, you remember from
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            yesterday.
                        I indicated that we would be marking
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            the questions that were posed in writing to Karl
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            English and the answers that were provided today,
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            so I'll just take care of that quickly.
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                 The first document is dated April 20, 2011.
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            These are the questions posed by the Area E
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            Gillnetters and B.C. Fisheries Survival Coalition,
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            questions posed to Karl English. So we'd like
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            that marked as the first exhibit. And just for
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            the record, those questions were redacted as per
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            the Commissioner's ruling.
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                 And then the --
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       THE REGISTRAR:
                      That will be marked as 1011.
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                 EXHIBIT 1011: Area E Gillnetters and B.C.
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                 Fisheries Survival Coalition redacted
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                 questions to Karl English, dated April 20,
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                 2011
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       MS. BAKER: All right. And then the next document
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            would be the answers that were provided by Karl
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            English. They still maintain the date of April
            20, 2011, although they were provided on June 3rd.
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So that will be an A, so --

1 THE REGISTRAR: Yes, that will be marked as 1011A.

EXHIBIT 1011A: Karl English's answers to Area E. Gillnetters and B.C. Fisheries Survival Coalition redacted questions of April 20, 2011, provided June 3, 2011

MS. BAKER: Thank you. And then the next set of questions and answers are re-examination questions directed to Karl English from Commission Counsel, dated May 27, 2011. That should be the next exhibit.

THE REGISTRAR: 1012.

EXHIBIT 1012: Commission Counsel reexamination questions to Karl English, dated May 27, 2011

MS. BAKER: And then the answers to those questions, also dated on May 27, although provided on June 3rd, would be --

THE REGISTRAR: 1012A.

EXHIBIT 1012A: Karl English's answers to Commission Counsel's re-examination questions of May 27, 2011, provided June 3, 2011

MS. BAKER: Thank you.

EXAMINATION IN CHIEF BY MS. BAKER, continuing:

- All right, to move back to the witnesses we have here, today. Mr. Crowe, I'd like to just talk to you about areas where RAR is not in effect. We've heard, today, that it's in -- RAR is in effect in certain areas, since they're indicated in the regulation. In areas where RAR is not in effect, what is the role of Canada in assessing riparian area impacts?
- MR. CROWE: Essentially, we perform our traditional role of reviewing development activities in riparian zones through the **Fisheries Act** lens, meaning we review a project to ensure compliance with the **Fisheries Act** and ensure that there is no net loss of habitat through, yeah, project reviews.
- Q And would the 1992 land development guidelines

that we reviewed earlier apply? 1 MR. CROWE: Yes, that would be the foundational 3 document. As we spoke yesterday, there's 4 additional documents that have complimented it, 5 but that is still foundational and still provides 6 the primary guidance and direction with regards to 7 what kind of standards we expect in terms of 8 setbacks and activities in that riparian area, 9 near shore area. 10 Okay. And the streamlining processes that we 11 talked about earlier today, those would also be in 12 effect in the other areas of the province where RAR is not in effect? 13 14 MR. CROWE: That's correct. 15 Okay. And Mr. Salomi, earlier in your testimony 16 you referred to a number of municipalities where DFO was engaged in planning processes in your 17 18 area, and I understand that some of those 19 municipalities had streamside protection bylaws or 20 policies or guidelines prior to RAR coming in; is 21 that right? 22 MR. SALOMI: That's correct. Okay. And what has happened in those 23 24 municipalities since the introduction of RAR? 25 MR. SALOMI: A large number of the municipalities recognize the benefits of the SPR and the 26 27 additional protection they might provide to --Sorry, just to -- the "SPR" meaning what? 28 29 MR. SALOMI: Sorry. Between the ISO land development 30 guidelines and the implementation of the RAR, 31 there was a short period where a Streamside 32 Protection Regulation was adopted by the 33 provincial government. Some municipalities adopted that Streamside Protection Regulation 34 35 before it was replaced by the Riparian Areas 36 Regulation. It's more consistent with the simple 37 assessment that is now in the Riparian Areas Regulation. A fair number of municipalities in 38 39 the Lower Mainland adopted or implemented that. 40 They still maintain that type of approach. 41 A few municipalities notably, you know, City 42 of Coquitlam, went from the Streamside Protection 43 Regulation to the RAR, that largely applies 44 detailed assessment, for example. In some 45 municipalities they're still applying the SPR-type 46 approach, or a land development guideline 47 approach. But it's a challenging situation for

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them, because there's this detailed assessment out there that may offer a substantially smaller riparian width and so they're having, I think, at times a challenge and probably had a challenge rationalizing the wider riparian buffers that they would otherwise apply.

- Q Okay. And we've been talking today and yesterday about physical intrusions into the riparian areas, primarily. What about hydrological intrusions, is that also a concern?
- MR. SALOMI: In urban areas, typical of the ones around the Lower Mainland where there's significant development, I would say the two primary items that are activities that are causing decreases in watershed health and productivity are (a) intrusions into the riparian zone, and (b) changes So when you cut down all the in the hydrology. significant portion of the forest in a watershed, that changes the rainfall interception and delivery of water to the ground and to the streams. When you replace soil and trees with rooftops and roadways, again, when that rain falls instead of it being soaked into the treetops or the ground, it gets funnelled quite rapidly to the stream. The volume of water that gets delivered increases, and this causes a massive erosion and destabilization of streams.

Similarly, because that rainfall is being intercepted, there's often less groundwater recharge, so during summer periods there's less base flow.

So, you know, when we're talking about urban development here it's important to keep in mind that both riparian integrity and the nature of the watershed and how swim water is managed is very important.

- Q Now, prior to the *Riparian Areas Regulation* being brought in, was DFO working with Metro Vancouver on an integrated stormwater management plan?
 MR. SALOMI: Yes.
- Q And how was that -- what are the important features of that plan that we should be knowing about here, today?
- MR. SALOMI: In recognition of the situation I just described, there was some effort to put together a way to describe watershed health in relation to riparian areas and hydrological changes, and the

Integrated Stormwater Management Planning document, pages 2-3, has a chart that shows the relationship between riparian areas and hydrology. And it basically laid out a way that local governments could protect riparian zones and put in stormwater management features to maintain the watershed integrity.

So it's based on one measuring and planning for sustainable riparian buffers, it's a 30-metre buffer width, and implementing land use patterns that minimize hydrological changes in the watershed, minimize development footprint, and then incorporating things like rainwater filtration features. So instead of the rainwater going down a catch basin in a pipe at the creek, it might first pass through a vegetative roadside swale, have the opportunity to have pollutants filtered out, have the opportunity to recharge the groundwater, and then if it must be released, be released in a slow way that tries to mimic natural conditions.

So that was an approach that the Metro Vancouver/GVRD municipalities worked on.

- Q And just maybe to make the record complete, at Tab 19 of Canada's documents is the Stormwater Source Control Design Guidelines 2005. Is that the document you're referring to?
- MR. SALOMI: That document describes best management practices or rainwater infiltration features to help try and minimize the impacts of impervious services in a watershed, and it compliments the Integrated Stormwater Planning document.
- MS. BAKER: Okay. I'll have that marked, please, as the next exhibit.

THE REGISTRAR: Exhibit 1013.

EXHIBIT 1013: Stormwater Source Control Design Guidelines 2005

MS. BAKER: Thank you.

Regulation?

 And the planning that you were doing with -- that DFO was doing with Metro Vancouver with respect to stormwater impacts, has that been impacted at all by the introduction of the *Riparian Areas*

MR. SALOMI: Well, as I mentioned, the watershed health tracking approach that Metro Vancouver was

utilizing in that document had one of the axis's based on riparian forest integrity, and the width that they utilized was a 30-metre buffer width. The challenge is the *Riparian Areas Regulation* often specifies 10 to 15 metre setbacks for smaller streams, say five metres and less, which represents a large portion of stream length in mini watersheds.

So right off the bat, if one was to default to the detailed assessment approach, you might find yourself in a 50 percent riparian forest integrity situation. Then you take, on top of that, you know, road crossings, power line crossings and other unavoidable intrusions, it puts riparian forcing integrity into a challenging scenario.

Fortunately, some of the local governments have realized their commitment to this integrated stormwater management planning approach and have maintained the larger buffer zones.

- Q Under **RAR** there is an exemption given to institutions. Can you explain how that works and if that gives rise to any concerns? Well, first of all, I'll ask Ms. Wilkerson, how does the institutional exemption work?
- MS. WILKERSON: Well, there's not a specific exemption in **RAR** for institutions, it's just that it doesn't the institutions aren't caught in the description of "development" so the **RAR** applies only to residential, commercial and industrial development.
- Q Okay. Does that give rise to any concerns from the provincial perspective?
- MS. WILKERSON: Well, they would still be -- they would still have to be compliant with the *Fisheries Act*.
- Q Okay. And Mr. Salomi, do you have any concerns with, well, I called it an exemption, but I guess it's not an express exemption it's just it does not include it in the --
- MS. WILKERSON: Yeah.
- Q -- works that are covered. Do you have any concern with the way institutions are treated or not treated under the **RAR**?
- MR. SALOMI: It does give rise to some challenges, for example, the question is: Well then what standard should be used? Should we default to the land development guidelines that were in place prior to

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the Streamside Protection Regulation? Should we apply the Streamside Protection Regulation or detailed assessment approach that's in the RAR?
What if the local government is not keen on supporting riparian protection? How do we encourage or require it? So it does cause some challenges.
Okav. And what about agriculture lands? Ms.

- Q Okay. And what about agriculture lands? Ms. Wilkerson, are agricultural lands exempt under **RAR**?
- MS. WILKERSON: Again, it's the activity that's caught under *RAR*, not the land. So on agricultural lands or in the *ALR* a residential activity, for example, would be subject to the *RAR*, but any agricultural activities would not be subject to the *RAR*.
- Q And does that cause any concerns with the province? Is there an intention to do anything about that?
- MS. WILKERSON: There are standards being set at the Minister of Environment with the Ministry of Agriculture for farm building setbacks and the similar agricultural development guidelines that are consistent with RAR, so that's in development right now.
- Q And how are those lands treated by Fisheries and Oceans right now, Mr. Salomi?
- MR. SALOMI: Well, one of the challenges with agricultural land is much of it's already developed, so it's not as if there's wide treed buffer zones or riparian areas on a lot of agricultural land, so we're often not involved. Local governments have limited roles on agricultural lands; the Right to Farm Act supersedes local government authority in a lot of cases. So we don't often get referrals for that kind of thing.

Where there is trees, where it's clear there's fish habitat, we would apply appropriate standards, such as land development guidelines or the *Riparian Areas Regulation*. Where there isn't vegetation there's this new guideline which Stacey has referred to. I believe it was finalized in February and it's starting to be rolled out now.

- Q Can you use s. 35 of the **Fisheries Act** with respect to agricultural lands?
- MR. SALOMI: You can where there's riparian vegetation. It's a bit more challenging when farmers are

regularly ploughing and cropping a field adjacent to a creek that the argument that there's a harmful alteration becomes a lot more difficult. All right. Ms. Wilkerson, from your perspective,

- Q All right. Ms. Wilkerson, from your perspective, has **RAR** provided any benefits to salmon habitat protection over previous legislation and regulation?
- MS. WILKERSON: Well, I guess the main benefit would be that it's a requirement for local governments, now, in the areas where RAR applies to have riparian protection within their bylaws, where before it wasn't a requirement. And from a practical perspective, I think, you know, in respect to the lakeshore development that we've seen over the past few years, there are a lot more developments, I think, that would have been in much closer proximity to the lake if something like RAR had not been implemented.
- Q And what about deficiencies with **RAR**? Where would you like to see improvements made in that regulation?
- MS. WILKERSON: Well, I think from a practical perspective we've been challenged mostly with enforcing infractions. RAR, itself, isn't enforceable. It was not designed to be. It was designed to be so if somebody is in violation of the RAR they're either going to be in violation of a local government bylaw, the Fisheries Act or the Water Act. But as been discussed earlier, the Fisheries Act, you know, becomes difficult because of prosecution. With the local government bylaw, it has been effective in some cases. Some local governments have been quite good about enforcing their bylaws, but if they won't then that becomes a challenge.
- Q All right. And Mr. Crowe, what is your view of this regulation? Has it been a benefit to protecting riparian area habitats in B.C., or in BCI, where you work?
- MR. CROWE: I have two opinions of the *Riparian Areas*Regulation. One, is that it has definitely provided some benefits. I like that riparian setbacks are now under regulation to compliment the *Fisheries Act*. I think it has that has been a substantial improvement. Before, we went from a guideline land development, guidelines were just that, guidelines. Now, there's actually a

regulation for standards.

And the other piece actually that's very important is the *Riparian Areas Regulation* actually also applies to Brownfield sites. A Brownfield site is a previously disturbed area. And where there's been, previously, a historical high degree of development and essentially the habitat features and functions have been eliminated because of historic practices, the *Fisheries Act* is essentially not easily applied to new development, because we're not protecting habitat; it's already missing.

The Riparian Areas Regulation's strength is that it identifies streamside protection and enhancement areas, and the enhancement is the key piece here in that it does not necessarily recognize just habitat features, but also potential for habitat, so that it protects an area for the purposes of trying to promote the restoration or recovery of that area.

So in terms of the primary objective of the habitat policy, which is for the net gain -- the national policy for habitat management, which is the net gain of habitat, this enhancement component to the **RAR** is definitely complimentary and something that I strongly support and endorse as an improvement in our ability to regulate foreshore areas.

- Q All right. And do you have similar concerns that Ms. Wilkerson identified with respect to enforceability?
- MR. CROWE: Yes, I share her concerns. I think that the delivery through local governments creates a very complicated environment for senior governments, the province and DFO to try to deliver a standard and level playing field essentially being the regulations subjected to the variances between local governments actually results in a, yeah, a somewhat very disjointed and I'd describe sort of Balkanized regulatory environment for us to work within.

I will use an example like the Columbia Shuswap Regional District, where the setback standards actually vary between electoral districts within one regional district. The reliance essentially on local governments to deliver administrative penalties I think is a

shortcoming and does not give the Department of Fisheries and Oceans or the Minister of Environment a lot of the compelling tools to get a higher degree of compliance by local governments, proponents and QEPs.

I think the professional reliance model has its place. I'm not sure it's necessarily the most appropriately delivered in this situation. Yeah, so essentially I share many of the same concerns as Ms. Wilkerson. I think that it has some great strengths, but there's clearly areas where regulation could be far more effective in meeting our mutual objectives, program objectives.

- Q Are there any other improvements that you would like to see to the regulation, other than what you've just touched on now?
- MR. CROWE: I think a more standardized approach, a more compelling system of -- to ensure compliance and, yeah, I think those are my two primary concerns.
- Q All right. And DFO's role under **RAR** is, in terms of operational involvement, is limited to the issuance of variances. Do you understand that to be consistent with DFO's s. 35 responsibilities?
- MR. CROWE: This actually is a very interesting point. It's actually in front of the B.C. Court of Appeal right now, which is that the Department of Fisheries and Oceans Habitat Management staff, we get our authority through the habitat provisions of the *Fisheries Act*, and that is essentially to protect habitat.

Now, under the *Riparian Areas Regulation*, we are responsible for the adjudication of all variances, regardless of whether or not it's a Greenfield site where any variance will likely result in a HADD, or a Brownfield, which is a previously disturbed site, where the habitat values may be highly degraded, and, therefore, we're asked to adjudicate development plans that don't necessarily have a HADD and a -- right now, in front of the B.C. Court of Appeal we are being -- the regulation is being challenged as that the feeling -- the opinion is that DFO does not actually have the authority to adjudicate those variances where there's not going to be a HADD.

So I think it's important to get that legal issue resolved to confirm whether and how

variances are to be managed particularly in Brownfield circumstances.

4 5 Mr. Salomi, would you like to address anything on these two issues?

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MR. CROWE: Sorry, can I just offer one more? Yeah.

I'd like to support what Michael and MR. SALOMI: Stacey have said about some of the positives of the *Riparian Areas Regulation*. For example, it requires local government, through regulation, to address riparian areas. That's good for local governments that weren't doing that. Some of the other shortcomings, I feel, with the RAR are, first of all, it's a fairly complicated process, the whole QEP assessment is, in my mind, overly complicated. There's a lot of work to come up with either a 10-metre or a 15-metre setback, and I'm not sure that the parsing out of 10, 10.5, 11, 12, 13, whatever metre setbacks is really that relevant. At the end of the day what we want is a functional riparian zones that is going to be sustained in an urban environment, and to do that I think it's more important to focus on what is

the sustainable width and what are the measures

regulation or the assessment methodology is weak.

that will sustain it, and that part of the

The other thing is I think it's a poor planning tool, and it makes it difficult for local governments to plan in a sustainable way. What's nice is if a local government says, "Here's the vision we have for this watershed. Here's what we'd like to see in terms of sustaining fish habitat into the future. What do we need to do to make that happen?" and I think the Riparian Areas **Regulation** takes that away, to some extent, because it simply says on a site by site basis you can do a detailed assessment and come up with a riparian zone with it.

You could apply the Riparian Areas Regulation at a subdivision phase or land planning phase when you don't really know what the adjacent development's going to be, and so you can't prescribe the measures and right then come up with a minimum width that would not be adequate in the future plans. So it's not an ideal planning tool. Okay. Thank you.

MR. CROWE: I'll keep it very short. But in any

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process where we're trying to coordinate and cooperate with the other bodies, it's important that everyone essentially is in agreement with the overall objective. And where a local government is in agreement with the objectives of RAR and is essentially a willing partner to deliver a mutually agreed upon objective, I think RAR can be very effective. The challenge is that - and I come back to the statement of Balkanization - I will speak to my area, there's still many local governments who don't actually necessarily feel it's their responsibility and obligation to deliver RAR, that that's the responsibility of the Province and DFO, and essentially resent and disagree with their responsibilities and work, I would say, against the objectives of RAR.

So it has to do with ensuring that you're working with partners. You cannot compel a partner to work with you cooperatively. I think partnerships have to be done and when people come to you willingly.

Thank you. And on that note, I'd like to move to the last two issues I wanted to cover today. One, is the Columbia -- sorry, the Shuswap Lake Integrated Planning Process, which has been called SLIPP. And then I wanted to talk to Ms. Wilkerson about a project that she's worked on as well, which is the Lakeshore Development Compliance Project.

So I'll start with SLIPP, and most of these questions are directed to you, Mr. Crowe. I'll first start by calling up the document at Tab 17, which is the SLIPP Strategic Plan. Are you familiar with this?

MR. CROWE: Yes, I am.

Q All right. Well, I'll get that marked, please, off the bat.

THE REGISTRAR: Exhibit 1014.

EXHIBIT 1014: Shuswap lake Integrated Planning Process, Strategic Plan for Shuswap and Mara Lakes

MS. BAKER:

Q Okay, and can you tell us what SLIPP is and why it was created?

MR. CROWE: I'll try to keep this short, but to explain

SLIPP you have to understand the development context of Shuswap Lake. Essentially, for the longest time Shuswap Lake was a -- which is in southern B.C. interior, a fairly slow-growing, quiet lake, some recreational development, but a lot of people had chosen to live around this lake for lifestyles and they liked how quiet it was, and actually there was an active desire by the constituents not to have much in the way of local government control and authority. So therefore, for much of this lake system, it does have some communities, like Sicamous and Salmon Arm on it, but much of it does not have standard local government controls, such as official community plans, bylaws, building inspections, and so on, and essentially the community liked it that way.

About 10 years ago council chose to vote in some increased governance and they were actually voted out at the next government elections and all those systems that were put in place were rescinded.

Approximately 10 years ago, 10 to 15 years ago, as I spoke of earlier, the rate of developments, particularly of an intensive recreational character, expanded substantially and essentially the community and the lake was changing. There was a great number of very large resort developments, very large marinas, more houseboats, larger homes, bigger boats and, in actual fact, the people of the lake did not feel that they -- the values that they had -- that had drawn them to the lake and kept them there were being maintained, and there was actually, starting in the mid-2000s, actually, a desire to have more government control activities in Shuswap Lake system.

The problem was that, as I explained, there was no local government control that are normally standard for determining where development occurred, the character, and nature development. There was no zoning and bylaws, building inspection and so on, so it was -- and, therefore, resorts were popping up all over the place.

In the absence of local government controls, plus at a time when the Provincial and Federal Governments were downsizing and redirecting their priorities, there was really no overall governance

or management of Shuswap Lake in a fairly effective or coherent manner. And in this sort of atmosphere of, I'd say it was a bit chaotic, a Provincial colleague felt that it was time to actually implement, in the absence of strong, local or Provincial and Federal engagement and control, that we really needed to look at another way of governing Shuswap Lake. Therefore, he coordinated with representatives of the three levels of government, the Fraser Basin Council, approaches to First Nations, and tried to basically create an integrated management planning process that would step in and fill the vacuum created by the, you know, the absence of the governance.

So that essentially was the background to the Shuswap Lake integrated planning process. It was essentially an attempt at the local level to try to get those agencies that had some effect or authority to coordinate and be more effective in how they did their business, to try to stem the rate and location and character of much of the development of Shuswap Lake and try to, yeah, just fill basically a governance or regulatory gap. And what was the Department of Fisheries and Oceans role in this project?

MR. CROWE: Well, the SLIPP process had a number of key objectives. There was an attempt to manage for water quality, an attempt to direct and manage recreation, and an attempt to manage foreshore development, with some overarching strategies or objectives with regards to improved education, better enforcement, coordinated enforcement on the lake, and a few other strategies. I can't quite remember them, though, they're in the document.

The Department of Fisheries and Oceans joined the Steering Committee, became a member of the Foreshore Development Technical Review Committee, became a member of the Compliance and Enforcement Coordinated Enforcement -- Compliance and Enforcement Group, and took a role with regards to helping basically hold a number of public meetings and so on to try to determine if there was public interest and if we could garner support for this type of initiative.

Another piece that was quite important for the Department of Fisheries and Oceans was

developing a foreshore mapping tool, because we understood that to manage this lake system we had to have a good inventory of all the development initiatives on the lake, and that actually, then, has led to a -- so foreshore management product, which then led into a habitat index analysis, and that has led, now, to guidance tools to try to give more specific direction to how development activity should occur on the lake.

- Q And Shuswap Lake, obviously, is an important lake for Fraser River sockeye?
- MR. CROWE: Yes. Shuswap Lake is essentially the rearing lake for the Adams River run. Actually, in this picture here, you can see the Adams River in the bottom, right-hand corner, running into Shuswap Lake at the western end of the lake.
- And this lake system was one of the lake systems where there was incomplete coverage with -- once **RAR** was brought in, right? It had -- some areas were not covered by **RAR**, some were covered by **RAR** but wasn't properly implemented initially, and so there was a mixed riparian protection regime for this lake system; is that fair?
- MR. CROWE: Yes. In '07 there was virtually no Official Community Plans, which are foundational to developing zoning and bylaws. We now have an OCP for the North Shore, but large other portions of the lake don't even have OCPs yet.
- Q All right. Do you think that the SLIPP project is a good project? Has it been successful in bringing some planning coherence to this lake and protecting riparian areas in the lake?
- MR. CROWE: I think it's been a very good process. think it has refocused agencies on the importance of the management of Shuswap Lake. I think it has done a good job of bringing agencies with possibly divergent interests to the table to figure out ways to coordinate and cooperate, reach mutual objectives, and I think it has brought a degree of understanding amongst all sectors, including the development sector, to help development should it occur on Shuswap Lake. And I think it has been a motivation to the Columbia Shuswap Regional District to continue moving forward with the development of bylaws and other local governance tools to control Shuswap Lake into the future. You know, I think the Provincial staff

deserve full credit for coming up with this idea and having driven it from its inception. And is there funding provided by the Federal

- Q And is there funding provided by the Federal Government or the Province to the SLIPP process?
- MR. CROWE: Yes, but nothing secure. We apply to our own funding sources to contribute to specific projects with regards to SLIPP. The Province, it's my understanding, does essentially the same. But there's no secure body of funding for Shuswap Lake Integrated Planning Process.

Right now, actually, the Steering Committee, which has evolved and is now delivered primarily through local government representatives, is actually trying to come up with a taxation system to provide secure, long term funding for SLIPP.

- Thank you. I just want to identify a document that was marked Monday or Tuesday this week, which is Exhibit 983, and I just want you to ask you to identify whether this document reflects the Water Quality Monitoring Plan that has been brought in through this -- or for that lake system, which has been brought in through the SLIPP process; is that what this is?
- MR. CROWE: That's right. That was one Water Quality Monitoring Plan project that was conceived of and implemented for the purposes of supporting particularly the water quality management objective of SLIPP.
- Q Okay. Thank you. And now, the last questions relate to the Lakeshore Development Compliance Project. These questions are for Ms. Wilkerson. At Tab 14 of our materials has a document which is the Lakeshore Development Compliance Project document, Phase 1, Defining the Issues Across B.C. What is this project and is it related at all to RAR?
- MS. WILKERSON: Well, this project came about -- the compliance division of the Ministry of Environment said to the ecosystems branch, "We will fund a compliance project for you, so what is your biggest compliance concern, provincially?" and almost every region came back and said that lakeshore development was one of the biggest issues that we had, or that we thought we had with compliance in the province.

So we started this project to really look at the scope of the problem to see whether this

really was a problem; we suspected it was. And so we chose 32 lakes across the province where we did a baseline inventory and compliance assessments. So baseline inventory, we essentially videotaped the shoreline to give us a benchmark of where the state of development was right now.

Sometimes prosecutions can be difficult because we don't have sort of a historical look at what the lakeshore might have looked like the year before, and so when development occurs that's not compliant, then we felt like this would give us a tool to show sort of a before and after picture, essentially. It also gave us the state of the foreshore. We looked at, you know, we measured the amount of riparian vegetation, foreshore modifications, just things that would give us a picture of where we were at, and then we did a compliance assessment on selected areas of the lakes to see what compliance levels were.

We originally thought we would look at all sorts of different statues. We thought we -- and this was a multi-agency project. We brought members in from stewardship groups, from other ministries within the Provincial Government, and we had a DFO rep on the project as well. So we thought we'd look at Fisheries Act compliance, Water Act compliance, RAR, and then we realized what a huge project that was and that just looking at the Water Act alone would be very informative. So we kept it to the Water Act.

- Q And how do you anticipate this information will be used by the Province, now?
- MS. WILKERSON: Well, it's been used in different regions and, I mean, the headquarters-driven part of the project is completed, now, but regionally it's been used to start collaborative planning processes between the different levels of government and stewardship groups. Several regions have used it to develop shoreline management guidelines. And some regions have told me that they're starting to use it now to look at compliance -- taking compliance actions.
- Q And do you expect that this work will be continued into the future?
- MS. WILKERSON: Like I said, it will be continued regionally. We now have -- with this project we developed a pretty extensive methodology, and so

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MR. SALOMI: Yes, I was referring to diagrams on page

with this, so we have that available for regions. We also have shared this with other groups that want to do some more work. And this is related to the SLIPP work we just heard about through Mr. Crowe?

now that methodology is now available, and we have the equipment, a lot of equipment was involved

MS. WILKERSON: Well, it's similar in the -- in that the issue is very similar, but we specifically didn't look at Shuswap Lake because SLIPP was going on at the same time. We had a member on our project from DFO that was also, I believe, involved with the SLIPP process at the time. there were some similarities, but they were sort of being developed at the same time.

MS. BAKER: And I should have this marked, please, as the next exhibit.

THE REGISTRAR: Exhibit 1015.

EXHIBIT 1015: Lakeshore Development Compliance Project - Defining the Issue Across B.C. 2008-09, Phase 1, April 2010

MS. BAKER: Thank you. Those are the questions, thank you very much. I know it was a long day with me, but thank you very much. Our next person to ask you questions will be Mr. Fugère, from Canada.

MR. FUGÈRE: Thank you, Ms. Baker. My name is Charles Fugère, F-u-q-e-r-e, counsel for the Government of Canada. I'm here with my colleague, Mr. Hugh I was initially allocated 30 minutes MacAulay. and then told to try to keep it as short as possible, so I'll do my very best to be done in less than 30 minutes.

CROSS-EXAMINATION BY MR. FUGÈRE:

the details of this topic, and my questions will try to focus on the bigger picture. Before I begin, however, I wonder if we could have Document 17 on Canada's list of documents brought up. Could we go to the next page, please. Third page. Okay, so Mr. Salomi, is this the Integrated Stormwater Management Planning that you were discussing with Ms. Baker earlier today?

Basically, Ms. Baker has covered very thoroughly

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PANEL NO. 42
Cross-exam by Mr. Fugère (CAN)

1 2-3 and 2-4 of this document. MR. FUGERE: Could we have this marked as the next 3 exhibit, please. THE REGISTRAR: 1016. 5 6 EXHIBIT 1016: Letter dated March 23, 2006, 7 from Kerr Wood Leidl, to GVRD, Regional Utility Planning, Policy and Planning 8 Department, and attached Template for 9 10 Integrated Stormwater Management Planning 11 2005, Submission of Draft Report 12 13 MR. FUGÈRE: 14 And can we go to page 2-3 and 2-4, I know it's a 15 weird numbering system. MR. SALOMI: 16 I'd suggest 2-4 --17 18 MR. SALOMI: -- if we have limited time. 19 Is this the graph that you had in mind? 20 MR. SALOMI: Yes. 21 Can you please comment on how you interpret this 22 graph? 23 MR. SALOMI: Well, I believe there was some discussion 24 of the CABIN process earlier. This health 25 tracking process is based on a similar process; that is, you can look at the diversity and numbers 26 27 of benthic organisms, or organisms which are 28 growing in the stream, the bugs of the stream, and 29 if you go to a stream and you sample a number of 30 the bugs and you lay out the different numbers and 31 types, you can get an idea of the health of that 32 stream. 33 If there's pollution, you have one type of 34 worm that's abundant, for example; if it's 35 unpolluted, you have a good diversity of bugs. 36

So using that as a basis, Metro Vancouver correlated bug scores or stream health with riparian forest integrity and total impervious area. And, you know, with all things science, the exact correlation is sometimes, you know, hard to pin down, but looking at a significant number of streams in the Lower Mainland and the Pacific Northwest, this graph makes a lot of sense, and it basically says the better the forest integrity and the lower the impervious or effective impervious area in the watershed, the healthier your stream is going to be.

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So I'll be moving onto my bigger Q Thank you. picture theme, and I'll start with a question which is following up on a question raised by Mr. Commissioner yesterday. So I will be addressing that question to you, Mr. Crowe, since you answered yesterday's question. And it has to do with the importance and the situation of riparian habitat within the bigger concept of fish habitat. Is it your understanding that the definition of fish habitat, under the Fisheries Act in the fish habitat protection provisions, includes and covers riparian habitat? MR. CROWE: Yes, it does. The definition of fish

- MR. CROWE: Yes, it does. The definition of fish habitat in the **Fisheries Act** includes those elements that effect fish directly and indirectly. So you have things that are quite clear, like spawning sub-strait that clearly effect fish, but it also does include and encompass things like trees because of everything they do to control the conditions within the streams. And as an example, bugs are also fish habitat, because of the fish the fish's dependence on them. And those processes that support the bugs, essentially it would be an indirect form of fish habitat.
- Q Thank you. And if we take any given stream or lake that is considered sockeye habitat and we completely destroy the natural riparian habitat by developing without compensation projects, how is this likely to affect sockeye survival and productivity in that stream or lake? In other words, in the water portion of the habitat sufficient if we lose the riparian portion of the habitat?
- It is not possible to maintain a healthy MR. CROWE: stream without a healthy riparian zone. There's just too many components of a stream that are directly dependent on the health of the riparian area. And I can provide you with quite a number of examples where historical development activities have degraded entirely the riparian area and effectively the stream has lost its -all of its capacity to support fish. The channels change shape, they've gone wider and shallower, the sub-straits fill in with sediment that washes out the banks, they become highly mobile, shifting back and forth. All the cover features of the juvenile fish are absolutely dependent upon to

survive disappear. There is no way to have a healthy stream without healthy riparian areas. And there's a very quick collapse in fish utilization of streams once they are -- once the riparian areas disappear.

We have seen that very frequently in situations where you have a healthy riparian zone, you have good functioning stream systems in terms of how they're supposed to behave hydraulically and physically, and they have good fish populations. Where that habitat basically is lost, fish do not -- the salmon and trout species cannot survive in those fish -- those areas, unlike, you know, some species, such as perch and bass, which are not particularly dependent on riparian areas and they can essentially be quite successful with -- in very poor habitat conditions. Sockeye, other salmon and trout are very dependent on healthy aquatic ecosystems. cannot have healthy fish populations without healthy streams, and that's completely dependent on healthy riparian areas.

- And you referred to there being several examples of a situation where the fish population suffered. Can you give us one quick example?
- MR. CROWE: Well, the one that would come to mind immediately would be the Salmon River near Salmon Arm, where, after decades of agricultural development, transportation corridors, transmission lines, rural and developments, the stream became exceedingly unhealthy. It once had a sockeye population of half a million and there's just a remnant number of, you know, a few dozen to a hundred on the dominant Adams years. Most years there's no sockeye in that stream. Chinook and coho populations have also collapsed and are only surviving due to our intensive hatchery productions support programs.
- Q Than you. Next question, for Mr. Salomi. Is the concept of cumulative impacts something that is relevant in evaluating the risk posed by urbanization and development on sockeye salmon?
- MR. SALOMI: I think it's one of the key items that impact fish habitat. It's no one thing, in most cases, that can be pointed to as causing declines of fish or impacts of fish. It's often the cumulative impacts. It's not just having no

riparian standard; it's the road crossings that eliminate the riparian areas; it's the residential properties where individuals have removed some of the trees and the temperature of the stream has increased because of that; it's pollution that comes from run-off, or sediment that comes from run-off that enters the stream; it's intrusions into the riparian zone by various activities that might occur in an urban area; it's the often constant pressure that fish habitat and riparian zones receive from recreational activity, from development, from maintenance activities for things flooding. It's all these things that, together, begin to degrade the overall health and then the quality of a stream and a fish habitat. Thank you. Now, back to Mr. Crowe. I take it

- Q Thank you. Now, back to Mr. Crowe. I take it that you're generally familiar with DFO's Wild Salmon Policy?
- MR. CROWE: Yes, I am.

- Q So I don't need to go to the document, in the interest of time. But could you tell me, is the protection of healthy riparian habitat a necessary condition to the success of the Wild Salmon Policy in sustaining Fraser River sockeye?
- MR. CROWE: It's an essential part. It's under Strategy 2, which is sort of essentially the inventory and understanding of our watershed health, ecosystem health. We need -- you cannot have, as I said, healthy systems without healthy riparian zones. Therefore, to be able to deliver on the Wild Salmon Policy to protect wild stocks' conservation units, it's essential that you have healthy riparian areas.
- Q Thank you. Continuing with you, Mr. Crowe, the Commissioner has heard during this Commission that urbanization and development booms in the past have had very negative impacts on sockeye habitat, and yesterday I think you gave evidence that in your area in the last 10 years there was a marked increase in waterfront development. And you also indicated, I think, today, that your area was likely to undergo a population growth, and same thing for the Lower Fraser area.

And in that context, my question to you is: Do we have any knowledge, now, that we did not have before, to allow us to manage development in a sockeye-friendly way, or is development directly

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incompatible with protecting fish habitat? MR. CROWE: When you look at salmon populations in North America, where have they collapsed? They've collapsed on the east coast and to the south of us through the western states. And we can point to factors such as fishing as a component of those collapses, but clearly it is development impacting habitat that has resulted in, in large part, to those populations, conservation units, being essentially eliminated. And now the United States is spending a substantial amount of money trying to restore salmon populations, viable populations, in many of the western states, and there's quite a number that are listed under the **Endangered** Species Act, and it's a next to impossible task to recover those types of populations once the habitat has been destroyed.

We have a situation, now, where we can reflect on what has happened before. I know that science papers 3 and 12 for this Commission were not able to make a strong -- any correlation between population effects and any type of the indicators that were chosen for those studies. I'm not necessarily in agreement with the methods within those studies, and I feel that there was actually some mistakes made. So I don't agree with the findings. I think habitat clearly has an effect on the health of salmon populations. look particularly at species like chinook and coho and how they have preceded sockeye in terms of population level effect changes in large part to freshwater changes. You can only predict that unless we change our management of habitat, that sockeye will continue down to -- will have continuing problems.

I suggest that the habitat management program with the Department of Fisheries and Oceans is here to try to protect what remains, to prevent another Cultus Lake circumstance which is, of course, devastating for that CU, but also has such substantial effects to fishing communities and fishermen and the economy.

So my answer is, yes, we understand how development can occur -- proceed in such a way to protect and conserve fish populations and stocks, but I do believe that means collectively we have to figure out better ways to manage the habitat

that remains and restore some that's lost. But it really is about managing the cumulative, incremental harms that occur over time, the thousands of little cuts that appear not to be a big deal but effectively, over time, do have a substantial effect.

- Thank you. That's actually a very nice transition into my next question for Mr. Salomi. One of the things that we've heard from this panel, today, is the importance of partnerships and that DFO and the Province can't do it alone. Can you please tell us, who are the key partners that you need around the table to get the fish protection habitat protection work done? Could you list the partners and explain what you would ideally want from them?
- MR. SALOMI: Well, I guess, in short, the easy answer is us and everyone else. It starts with individuals in the community that raised the importance of salmon with their elected officials, and encouraged the steps required to protect salmon habitat. I think one of the key players in -- key partners is the local land use authority, be it the regional district, be it the local First Nation, be it the local municipality or the port authority. The land use authority that dictates the future plans and the OCP and how we develop are really the ones that are going to be dictating the nature of the cumulative impacts. You know, I showed you the graph with the impervious area in a watershed and how that effects hydrology and stream health.

DFO has, or the Province, has limited ability to push a local government to design a development so that the houses are more compact and there's less impervious area. We have limited ability to go to a local government and tell them to implement green infrastructure or those infiltrating features everywhere. That's the kind of thing that the local government has to plan for and implement themselves. But for local government to do that, they need elected officials that have the support from their community to do that. So we need community groups and citizens to ensure that they speak their voice about what they see as important in their community.

We need user groups like First Nations and

1 fishermen to make sure they speak their -- or represent their values for salmon and ensure that 3 they say, "Look, we recognize the importance of habitat and good planning if we want to have 5 salmon into the future." 6 So I think it's everyone, but ultimately I 7 think vision and leadership from provincial, 8 federal and local land use authorities is key. 9 Thank you. I will direct my next question to Ms. 10 Wilkerson. We've heard about the issue of 11 compliance with RAR at the local government level, 12 and this was covered by Ms. Baker. I was 13 wondering if you could tell us, as someone who has 14 very good knowledge and familiarity with the RAR 15 regime, what should be the next step in terms of 16 -- next changes or next steps in terms of 17 improving local government compliance with RAR? 18 Is it a matter of integrating harsh enforcement 19 provisions in RAR? Is it a matter of educating 20 local governments on the importance of riparian 21 habitat? What input would you offer? 22 MS. WILKERSON: Well, as far as improving local 23 government compliance, that's something that --24 we're at the point, now, we've been sort of 25 reluctant, I guess, to -- our role has been to 26 support them, encourage them, to comply and, you 27 know, we're seeing improvements in compliance with 28 local governments that we didn't think we'd ever 29 So we are feeling positive about that. 30 However, we're probably getting to the point soon where if local governments refuse to comply 31 32 then we have to look at what we can do under the 33 regulation to either -- to do some sort of 34 regulatory change that would allow us to have more 35 -- to include enforcement provisions for local 36 governments, or to actually look at -- yeah, actually, I'll leave it at that. 37 38 Thank you. And in terms of the relationship 39 between DFO and B.C. on the implementation of RAR 40 and the collaboration between the Province and 41 Canada, what do you think could be improved? 42 could DFO and B.C. work better together at 43 implementing RAR? 44 MS. WILKERSON: Well, I think -- my experience has been 45

a fairly positive one since I started on the RAR.

We have a coordination committee that meets

monthly and it's DFO, the Province, and a

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representative from the Union of British Columbia Municipalities, and I always find that those are -- we have really open and frank discussions about where we're at and what we need to move forward with.

I think having consistent contacts for us. I think the biggest challenge for me is that people's roles within DFO change fairly regularly, as do in the Province, and to keep -- always keep somebody as a contact, either in regional headquarters, to communicate with me, so somebody in my equivalent position, would be very helpful. Perhaps I'll finish by inviting Mr. Salomi and Mr. Crowe to comment, if you have anything to add to the sense of improving B.C. and DFO work on RAR?

MR. CROWE: I would agree with Ms. Wilkerson that, yes, DFO's struggles to maintain a somewhat consistent representation has been problematic. I would say that in light of many pressures on the program from different sources, it has been hard to keep senior management focused on this issue and some of the challenges that have to be resolved between the two senior — between the governments at a more senior level. So I would concur with her comment.

The other piece is I -- yeah, I'm sorry, I think that I'll leave it there.

Q Thank you. Mr. Salomi?

MR. SALOMI: I reinforce the comments from my colleagues here. As well, I think something that would help is some effort around efficacy. Some of the challenges that we face is, you know, questions about the efficacy of RAR from not only colleagues but users, and it's been in place for some time, now. It would be nice to do some efficacy assessment to see if there are areas for adjustment or improvement, some true science that could help support the application and, therefore, promote the application of the regulation.

MR. FUGÈRE: Thank you. Thank you, Mr. Commissioner. Those are my questions.

THE COMMISSIONER: Thank you very much.

MS. BAKER: Mr. Commissioner, Mr. Prowse, for the Province, would be next and he said he's got less than five minutes, if we could do that, then maybe we can split the afternoon between the other two parties?

MR. PROWSE: Yes, thank you.

CROSS-EXAMINATION BY MR. PROWSE:

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Q Ms. Wilkerson, I just wanted to ask if you had anything that you wanted to add to anything that you've had to say today?

MS. WILKERSON: Not at the moment.

- Q That will make Ms. Baker very happy. And my second question may be a bit of a commentary, is to Mr. Crowe. Mr. Crowe, first of all, thank you very much for your compliments to the Province on the SLIPP process, which I think will be much appreciated. By the same token, the role of DFO that you explained in that process was obviously was very critical to the process, would you not agree?
- MR. CROWE: I would agree.
- And likewise, one of the good parts of what I think is a very good news story, is that the CSRD over the years has had a somewhat miraculous transformation as well, has become quite vigilant on these issues; is that not correct as something you've observed over the last few years, particularly with respect to the SLIPP process, they've firmly endorsed it?
- MR. CROWE: Yes, I -- as I said, I think that the SLIPP process has helped motivate the Columbia Shuswap Regional Directors to become far more supportive and engaged in moving towards coordinating and cooperating with SLIPP as well as starting to make the changes within the CSRD with regards to their authorities to, I think, make -- set the Columbia Shuswap Regional District up for a more sustainable future in terms of conservation protection of foreshore values, habitat and meeting water quality and other recreational and societal objectives.
- And finally, Mr. Crowe, your colleague referred to work in the riparian area as being everybody's job, and my understanding, and I may be wrong, is that that's reflected that the process document itself, Exhibit 1014, is a document that doesn't have an author simply because it was the document that was the result of work by everybody who was involved in that process, which I think is a model for collaboration; would you not agree?

MR. CROWE: I would, yes. MR. PROWSE: Thank you. MS. BAKER: We have two questioners left so if we were to take a break, this would be the time to do it, I think. THE COMMISSIONER: Okay. THE REGISTRAR: The hearing will now recess for 10 minutes. (PROCEEDINGS ADJOURNED FOR AFTERNOON RECESS) (PROCEEDINGS RECONVENED) THE REGISTRAR: The hearing is now resumed. MR. HARRISON: Good afternoon, Mr. Commissioner. Judah Harrison for the Conservation Coalition,

which is a group of non-governmental organizations and individuals focused on the conservation of the resource. I note that we have about 45 minutes left and there's two more participants, so I've been asked to split the time equally with the First Nations Coalition. I will endeavour to go as fast as I can. I will be going a little faster than I had intended.

If we could start please at -- it was just

If we could start please at -- it was just marked as Exhibit 1007, please. This is the "Riparian Areas Regulation Implementation Guidebook." If you could turn to page four of this document, and I believe it might be ringtail 5, but it'll say four in the bottom right corner. Back one.

CROSS-EXAMINATION BY MR. HARRISON:

Q In the second paragraph in the middle - thank you - it says:

The integrity of a riparian area depends on, and is influenced by, the upland area as well as the upstream environment. British Columbia has lost hundreds of kilometres of riparian habitat in the past decades in the Lower Mainland alone.

My question, and I'll ask just Mr. Palomi (sic) and Mr. Crowe, is do you agree with this statement that we have lost hundreds of kilometres of riparian vegetation, and secondly, is this

continuing today as we speak? 1 MR. SALOMI: That's probably a fairly accurate 3 statement. 4 And would you agree that we are continuing, as we 5 speak today, to continue to lose riparian habitat 6 in the Fraser River? 7 MR. SALOMI: Yes. 8 Thank you. Mr. Crowe? 9 10 stream habitat, including riparian. 11 12 13 14 15

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- MR. CROWE: Yes, I would agree we're continuing to lose
- Thank you. There has been some discussion, some very helpful discussion on what riparian habitat is. Mr. Fugère noted that the definition of habitat contains riparian habitat, but I want to go to page 12 of this document as well, please.
- MR. HARRISON: Again it will be 12 on the bottom right corner. Thank you.
- The part that's conveniently highlighted in blue says:

The importance of streamside/riparian vegetation as fish habitat has been successfully brought before the courts, and legal judgments have identified riparian vegetation as fish habitat.

Would you agree with this statement that riparian vegetation is fish habitat?

MR. CROWE: Absolutely.

And just taking a small step back, just really simplistically, when I think about habitat, I think about water, riparian vegetation and maybe rocks and inorganic materials without the stream -- in and about the stream.

My question is, is riparian habitat a core element of habitat? When you think of habitat, does that not -- a core element of that include riparian habitat?

- MR. CROWE: Absolutely. As I answered Mr. Fugère's question, without healthy riparian habitat, streams change substantially and are unable to support salmon and trout species.
- Thank you. And you have already said this twice, Mr. Crowe, but I just wanted to emphasize it. said that riparian vegetation is particularly important for sockeye species as opposed to other fish.

- MR. CROWE: I wouldn't say sockeye any more than any other salmon and trout. I give them -- riparian vegetation is critical to all of them.
 - Q Thank you. So -- sorry, salmonoids, then, require intact riparian vegetation more so than other species of fish; is that fair?
 - MR. CROWE: Yes. We generally refer to the salmonids.
 - Q Okay. Thank you.

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- MR. CROWE: Is to capture salmon and trout. They're essentially much the same family. That can also include lake char.
- Q Thank you. And if we can turn to page 24 of this document, 2.1 and 2.2 set out the roles of the various governments. The first one says the role of DFO, and 2.2 is the role of the Ministry of Environment, the provincial ministry.

I note that the provincial definition — these are really short, but the provincial role includes monitoring compliance where the DFO does not include monitoring compliance. I'd like to ask is that your understanding of DFO's role in the Riparian Areas Regulation that it does not include monitoring compliance? Ms. Wilkerson, would you agree that B.C.'s role does include monitoring compliance?

- MS. WILKERSON: I would agree that one of the province's roles is to monitor compliance, yes.
- Q thank you. And, Mr. Crowe, would you agree that it's not among DFO's role to monitor compliance?
- MR. CROWE: What I would say is explicitly in this document, it doesn't identify it as such. In the riparian -- there's an operational committee consisting of the Union of B.C. Municipalities, DFO and the province. One of its roles is to help coordinate monitoring. DFO could be a participant in monitoring if it so chooses, but as I said a bit earlier, we do leave it to the province to lead the monitoring. We have engaged opportunistically at times.
- MR. HARRISON: Thank you. Mr. Bisset, can you bring up document 5 from Commission counsel's list of documents, please, or list of exhibits.
- Q Now, this is a draft memo. The subject matter is entitled "B.C. Interior, RAR Update". It is dated May 19th, 2006. Mr. Crowe or Mr. Salomi, are either of you familiar with this draft memoranda?
- MR. CROWE: Yes, I am.

Thank you. On the second page of this memoranda, Q about halfway down, there's a list of what is dubbed "RAR Weaknesses", or weaknesses with the Riparian Areas Regulation. There's some particular ones. This is halfway down page 2 and then it continues on the next page. MR. HARRISON: But if you go to the next page, Mr. Bisset, the bottom two bullets of this part are what I'm focused on. I would like as the two of you to read those last two bullets and then give your opinion whether these are -- this continues to be an issue. To break the uncomfortable silence, potentially, I'll just say that these two

potentially, I'll just say that these two reference the limitations of using qualified environmental professionals to do habitat assessments. So specifically, I guess I'll ask -- this says:

There are notable risks from reduced government oversight, in particular endorsing that HADD determination be made by the proponent's consultant.

Mr. Crowe, would you agree with that?

MR. CROWE: I would, yes.

Q Mr. Palomi (sic)?

MR. SALOMI: It's Salomi, sorry.

Q Sorry, thank you.

MR. SALOMI: Not that I'm sensitive to that with a name like that. I would agree there are risks.

Q Thank you. And then the next bullet asks a question, says:

What happens if a qualified environmental professional makes a HADD determination DFO doesn't agree with?

Would you agree that that is also a problem? Mr. Crowe?

MR. CROWE: Yes. Back in 2006 when this was written, this was a substantial concern. As I testified earlier, we still are concerned about the judgments of some QEPs, and while I think we have put in place systems to help ensure quality of HADD determinations and an ongoing DFO role, particularly as it relates to these variances, it

 is still, yes, a concern to us. Would you agree with me that there's an incentive

determine that no HADD occurs? In other words, is it fair to say that a third-party consultant will find, you know, that no HADD has occurred more readily than a government biologist simply because they are being paid to do so?

MR. CROWE: Yes, I spoke to this earlier, but my concern is that some of the individuals performing

for qualified environmental professionals to

MR. CROWE: Yes, I spoke to this earlier, but my concern is that some of the individuals performing as QEPs have indicated by their track record and decisions that they are not an unbiased professional providing the same advice to their clients or to government as I think that they should be

Q Okay. Thank you.

- MR. CROWE: I should qualify that by saying there are a good group of professionals out there, but there is a component, a contingent, that is a problem for us.
- Thank you. And what about monitoring, follow-up monitoring. It is my -- if you read these documents of the RAR, it's my understanding that follow-up monitoring is often -- it is cited that the qualified environmental professional will do follow-up monitoring. Is that fair?
- MR. CROWE: They're expected to do follow-up monitoring. I would ask Ms. Wilkerson to comment on this after me, but there is nothing to -- you are supposed to have a follow-up monitoring report, but there's actually nothing that compels the property owner, once they've got their development, to ensure that that is conducted and that report is submitted. There is often no follow-up monitoring as I understand it. Again, I'd ask Ms. Wilkerson to provide her opinion on that.
- Q Ms. Wilkerson?
- MS. WILKERSON: I agree with what Mr. Crowe just said. We do require, in a report, for a QEP to state that a post-development report is required, and we have received them. But there are a large number of reports that have been submitted where we haven't seen post-development report.

Again, it's been a little bit dependent on the QEP. Some QEPs will go in and say, okay, I'm going to provide your assessment and then I'm

going to come back when you start and I'm going to monitor. Then I'm going to come back when you're 3 finished. They charge them up front for this and they come back. 5 Other QEPs will just do the up-front 6 assessment and tell the developer they need to 7 hire someone when they're finished. In those 8 cases, it doesn't usually happen in our 9 experience. 10 MR. HARRISON: I will skip over that. Thank you. 11 you bring up document 8 from Commission counsel's 12 list, please? 13 MS. BAKER: Did you want to mark that? 14 THE REGISTRAR: Did you want to mark --15 MR. HARRISON: Oh, thank you very much. The last document, can you please mark as exhibit? 16 17 THE REGISTRAR: That's Tab 5 of the Commission's list? 18 MR. HARRISON: That's correct. 19 THE REGISTRAR: That's 1017. 20 21 EXHIBIT 1017: DFO, Memo to Greg Savard, A 22 Director, OHEB (Draft) 23 24 MR. HARRISON: Document 8. 25 Mr. Crowe, this is an email from you to various 26 people including Mr. Jason Hwang, dated October 27 6th, 2009. The subject is "Water Act 28 Notifications". Do you recognize this email? 29 MR. CROWE: Yes, I do. 30 And is it fair that -- I mean, this email 31 discusses the SLIPP process and talks about its successes. I would like to take you to a -- you 32 33 actually touched on this earlier today, but I would like to just emphasize that you do say 34 35 something here that I think I would like to 36 emphasize again. You say: 37 38 We are having a chronic problem with a 39 substantial regulatory gap. 40 41 And then further on down, at the very last 42 sentence in fact, you say: 43 44 We are facing a problem of ongoing 45 deregulation, [where] when everything we knew 46 of the problems facing Shuswap and other

lakes, is that there is a need to improve

management...direction.

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other part of this email, talk about how Shuswap worked and you talk about that necessitated political will. But I wanted to focus on that part of where there's not a political will, would you agree with me that RAR amounts to deregulation? MR. CROWE: I don't know if I would say deregulation.

Now, my question to you, you actually, in the

As I said, before RAR, we relied on land development guidelines to provide guidance for development, and we had referral systems for trying to capture and comment on development projects.

One of the things I complimented RAR about was actually providing a regulatory standard for development and I do stand by that agreement -that statement that I think it is -- it's not deregulation, it's actually an increase in regulation. My problem with it is actually how it's implemented and some of the mechanisms within the regulation.

Sure, there's clearly elements that I disagree with, such as the transference of some authorities to QEPs to make these decisions, so I would say ultimately I would not call it a deregulation. I would say it has the potential to be a very powerful and effective tool to protect riparian areas. But what I would add to that is, though, I think it needs to be strengthened in some areas as we've spoken to earlier.

- Okay. Well, thank you for that answer. to reframe my question actually. I think you're right. It may not amount to a deregulation, but then I'd like to ask, in your view is RAR a delegation, i.e. if we look at what we went to earlier, riparian habitat is habitat, and the DFO, as far as we understand, has a mandate to protect habitat. But RAR and all that we're talking about here seems to be a delegation for other people to do their job. Is that fair?
- Riparian Areas Regulation I think is an MR. CROWE: experiment in a new way of delivering environmental protection. The idea is sound; it's that it's a responsibility of all levels of government. The federal government, provincial

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Cross-exam by Mr. Harrison (CONSERV)

government and local governments all have roles to play here.

The problem is that some of the people that you're delegating to don't want that delegation. I think that's the problem, is how to ensure that the local governments are fulfilling an obligation. I think we can point to local governments that want to take on that role and I will use an example like the City of Kelowna. We never have any problems essentially from that area. I think is a quite a sophisticated government. They have an objective for sustainable development and that works great, but they want to do it.

Then we have too many examples where others don't want to. They feel it is a delegation and I would say that, yes, in some fashions, it is a delegation of responsibility. A great idea but, yes, I guess the short conclusion to your question is that it is a delegation.

- Thank you. You've talked about the willingness of various municipalities. I'd just like, briefly, would you also say there's a problem that many municipalities would not have the technical capabilities to do a proper assessment? Is that fair?
- MR. CROWE: Well, first of all, local governments don't do the assessment. It's the QEP who does the assessment and submits a report. The local government's role is to make a determination within their authority based on that, the conclusions of that report.

But I think my answer to your question would be that some local governments who do not want to have that responsibility are not actively cooperating in the effective delivery of the regulation.

- MR. HARRISON: Okay. Well, I note that time and I'm going to leave it there. Thank you very much.
- MS. BAKER: Do you want to mark that last --
- MR. HARRISON: Pardon? Five-one -- oh, thank you again. I forgot to mark the last document as an exhibit, and I would like to please do so.

THE REGISTRAR: Exhibit 1018.

THE COMMISSIONER: Thank you, Mr. Harrison.

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EXHIBIT 1018: DFO, Email from Michael Crowe re Water Act Notifications, October 6, 2009

MS. REEVES: Good afternoon, Commissioner. Crystal Reeves for the First Nations Coalition, and I'll just jump right in, given the interests of time. If you could pull up our Tab 7?

CROSS-EXAMINATION BY MS. REEVES:

- And my question is directed towards you, Mr. Are you aware of this report on the foreshore inventory and mapping that was done for DFO and Regional District on Shuswap and Mara Lakes?
- Yes, I am, and I did comment on it briefly MR. CROWE: and fairly early, but not as -- it wasn't an exhibit at that point, but I made reference to it in answer to SLIPP.
- MS. REEVES: Okay. I'd like that marked as the next exhibit.

THE REGISTRAR: Exhibit 1019.

EXHIBIT 1019: Final Work Draft-Shuswap Lake, Mara Lake, Little Shuswap Lake and Little River foreshore inventory and mapping, Jun 2009

MS. REEVES: Okay.

And what I'd like to do is head to page 39 of the document, and that's the start of the recommendations that were in the report. At page 39 and 40 and 41, there's a number of recommendations made, including habitat restoration works on page 40, that there should be an identification of core habitat areas; on page 41, that there should be a creation of an Environmental Advisory Committee to conduct a development review process and that SLIPP should pursue funding to complete a shoreline management guided document.

Have you had a chance to review these recommendations?

MR. CROWE: Yes, I have.

And do you support the majority or all of them that are in this report?

MR. CROWE: Yes, I support them. The Department of

Fisheries and Oceans has reviewed and actually was 1 a key player in the development of this document 3 and was party and familiar with all these 4 recommendations and in agreement with them. 5 Thank you for that. Also on page 43, Okay. 6 number 17, maybe I'll just specifically point to. 7 MS. REEVES: If you could go to recommendation 17 and 8 blow that up, please? 9 It talks about compensatory works resulting from 10 projects or portions of projects that could not be 11 avoided, must follow the DFO decision framework 12 for HADD. I'm just wondering if there's been any 13 thought given to how that could be done. 14 MR. CROWE: I'm sorry, I must say it's been a while 15 since I read this. If you can just -- I promise 16 to read it very quickly --17 Sure, sure. 18 MR. CROWE: -- in consideration of time. 19 Essentially, we're -- this is a statement of 20 how we feel all compensatory work should be 21 conducted and related to any development activity 22 that works that have to counterbalance an 23 authorized harm, or to be done in such a way that 24 the overall project will meet the "no net loss" 25 guiding principle of our habitat policy. 26 And would you like to see that implemented in the 27 Shuswap Lake area, then, perhaps through the SLIPP 28 process? 29 MR. CROWE: I think the SLIPP process would be a very 30 good process to help guide and direct how 31 development activities result in a HADD in Shuswap 32 Lake could best place and determine what type of 33 compensatory work should be conducted. 34 Okay. Thank you. I'm going to move on now to 35 you, Mr. Salomi, in a bit of a different 36 direction. 37 I'm going to take us to Exhibit 746 which is

"Saving the Heart of the Fraser" report. This was done by Dr. Rosenau and Mark Angelo for the Pacific Fisheries Resource Conservation Council. Are you familiar with this report?

- MR. SALOMI: I do recall looking at that document, but it was some time ago.
- Q Okay. Well, maybe I can just talk about some of the impacts they talk about, very quickly.

Starting on page 79, they're discussing the impact from agriculture in the lower Fraser River

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watershed. On the fourth paragraph down, it talks about the interplay between construction of dikes and the need for bank stabilization with armouring, or what's known as riprap. Are you aware of that impact and that sort of, I guess, correlation between those two?

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MR. SALOMI: Yes.

8 9 And would you say that's quite a high impact in the lower Fraser River watershed?

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MR. SALOMI: Yes. Historically, that resulted in significant losses of fish habitat. Okay. And then I'd like to go to page 84.

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If you could just blow that up? It's, I guess, five -- the fourth paragraph down. It's the small paragraph there. It says:

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The era of dike building within the gravel reach is not yet completed...

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And then it talks about over the past ten years, in the paragraph above, there continue to be numerous upgrades to Fraser River dikes in the Chilliwack area subsequent to hydraulic modelling.

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So I guess my question is, is would you agree that dike-building in some cases is not just an historic impact, but also an ongoing impact in the lower Fraser River?

MR. SALOMI: Well, without reading the full context here, I think what is suggested there is likely raising of existing dikes. So the actual footprint impact or new impact is often limited if it's just a matter of raising the dike.

If it's construction of new dikes or spurs or other features, then perhaps there's more of an impact. But if it's simply raising or upgrading through raising, the impact -- new impact is rather limited.

- Thank you. I'd like to move on from that, Okay. then, and go back to you, Mr. Crowe, in regards to a SLIPP again.
- MS. REEVES: And if we could pull up Exhibit 1014, please.
- So, Mr. Crowe, is it your experience, being involved in the SLIPP process, that First Nations in that area share your concerns and the perspective of DFO on the importance of habitat and salmon populations and the protection of

those?

MR. CROWE: Generally, yes. But I will qualify that by also saying that we're engaged in discussions with bands at this time with regards to the desire to actually redevelop and create development opportunities on reserve lands as well, and that we're having discussions on what appropriate setbacks and development standards should be on reserves.

I'd say that generally, absolutely, with the very, very similar opinions. But you can't -- I don't want to generalize and say that all First Nations are in agreement. There are some, including representatives of First Nations government, who would like to see increased development standards and activity on reserve lands, and that we're having somewhat similar challenges as I've described elsewhere on those reserve areas.

But, for the most part, I would have to say First Nations are a very keen interest in the sustainability of the Shuswap Lake area.

- Q Okay. And from my understanding, there are First Nations involvement on the Steering Committee for SLIPP; is that correct?
- MR. CROWE: That's correct, yes.
- Q Okay. I'd like to go to this report at page 15 of the pdf. At the bottom there, there's a chart of implementation steps, and can you give us just maybe a brief overview of where those are at in terms of the implementation of some of those steps that are outlined there in the chart?
- MR. CROWE: Sorry, can I ask you to go back and define which -- like there's implementation steps for each of the components of SLIPP, and if -- I'm not sure which ones these ones refer to.
- Q Well, I think it's the --
- MR. CROWE: Or is this the implementation of SLIPP in general?
- Q Yeah.
- MR. CROWE: Within each of the objectives, and there's a separate implementation plan for each one of them. I wasn't sure this one referred to -- this is...
- Q I guess if you could just comment, perhaps, on is an MOU being developed in regards to conflict resolution mechanism? Where is that at?

MS. BAKER: Sorry, I wonder if it would assist the witness in looking at the previous page which identifies this from the section entitled "Improved Development Application Review Process."

MR. CROWE: Okay, thank you, yes. So within the various streams or objectives of SLIPP, some being water quality, some recreational development, this one being foreshore development, there was a plan to create a memorandum of understanding between all the different agencies on how they were going to coordinate and interact in the review of development applications.

That was the original intention when this plan was made. It has somewhat changed, and the decision was to go with terms of reference for that inter-agency technical review committee, and we never actually created the MOU, but we do have a framework on how we will engage in a technical review committee as opposed to having an MOU.

- Q And are First Nations on that committee that's been part of that?
- MR. CROWE: I can't say conclusively. I believe that they were invited to be a member, but it might be ex officio. I have never seen a First Nations individual attend those meetings. It's really a this is a committee that's more specific to the regulatory agencies and how they coordinate the regulatory reviews and decisions, and I don't believe there's been a First Nations representation on that committee.
- Q Okay.

- MR. CROWE: There is on the steering committee, but I don't believe on this technical committee.
- Q Okay. And I guess, then, onto page 27, it talks about the need to create a professional and scientific advisory group. Are you aware of that recommendation?
- MR. CROWE: Yes, I am.
- Q And how was it envisioned who would put the issues to the scientific committee? Would it be DFO or the province or individuals or local government? Who would be putting the issues to this committee?
- MR. CROWE: The idea was that, as it was envisioned, was that the technical committees would if they ran into an issue where they felt they needed science advice would make a submission to the steering committee and the steering committee

would then refer that question to the panel of scientists, yeah. Okay. And is it envisioned that First Nations

Q Okay. And is it envisioned that First Nations would be a part of the science committee in terms of including traditional ecological knowledge and how that might be incorporated?

- MR. CROWE: Within governments, it's always understood that that's an objective. The actual Scientific Technical Committee never was formulated. It was an idea and the steering committee actually has taken on other priorities, and as far as I'm aware, that scientific committee was never established. I think it was definitely within the normal spectrum of discussions, that that would be considered in some fashion.
- Q Okay.

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- MR. CROWE: Because First Nations is so important to the Shuswap Lake area, and there was a desire to integrate them as much as possible. In the SLIPP process, it would only make sense that we would try to do it in all components --
 - Okay, thank you.
- MR. CROWE: -- of the process.
- My next questions are for you, Ms. Wilkerson. First question is were First Nations ever asked to participate in the development of the RAR?
- MS. WILKERSON: I don't know. I wasn't involved in the development of the RAR.
- Q Okay. And then earlier today, under questioning from, I believe, it was the Commission, you talked about these monthly meetings between DFO, the Union of B.C. Municipalities and the Province to sort of coordinate and talk about RAR.

Have the First Nations ever been invited to participate in those meetings as well?

- MS. WILKERSON: No, this is a committee that came out of our intergovernmental cooperation agreement between the three parties. So those have been the only parties that have participated to date.
- Q Right. Do you think it would be useful to invite a First Nation representative from, say, perhaps the First Nations Fisheries Council to provide that perspective?
- MS. WILKERSON: Possibly. I guess it hasn't been considered before because RAR doesn't apply on First Nations Lands, and so it's something that I don't think has been considered, but whether or

not it would be helpful, I'm not sure. 1 2 Right. But given the habitat concerns of First 3 Nations it ---4 MS. WILKERSON: Oh, from that --5 -- it might be --6 MS. WILKERSON: -- perspective? Oh, possibly, yes. 7 Okay. And earlier today, also, you talked about how the 2007 audit report, or audit, which is now 8 9 a draft report for 2009, is going to be made 10 available to the public; is that right? 11 MS. WILKERSON: That's right. 12 And what about all the data about which 13 developers, local governments and QEPs were non-14 compliant? Would that data be made available to 15 the public? 16 MS. WILKERSON: It wouldn't name specific developers or 17 QEPs, no. 18 And perhaps, then, would you agree that making 19 perhaps this information public, you know, might 20 encourage parties to be more compliant because 21 they would be held to public account? 22 MS. WILKERSON: I quess it's possible. 23 And what about the possibility of giving this 24 information to First Nations, given that some of 25 the developments would be taking place on traditional territories, upon which that 26 27 development is taking place. 28 MS. WILKERSON: Yes, if there was an interest for the 29 information, then that could be supplied. 30 Thank you for that. 31 Mr. Crowe, back to you. Given government 32 downsizing, what remains a priority for an 33 ecosystem-based management monitoring in your 34 region? 35 MR. CROWE: We have tried to align our monitoring with 36 our primary statutory obligations and 37 responsibilities and that is authorizations under 38 the Fisheries Act, responsibilities under CEA and 39 Species at Risk Act. 40 Essentially, while we have plans for a 41 monitoring program in the future to address a wide 42 spectrum of development activities, right now we 43 are focusing on confirming that the decisions we 44 are making under our primary statutory obligations 45 are being effective and doing essentially what

they're intended to do.

So right now most of our monitoring is

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- focused on the issues such as our authorizations.

 MS. REEVES: Okay. Thank you. If we could just go to Exhibit 1003, please, and to page 9. And if you could blow up, I guess, the last few bullets.

 That's fine.
- Q So this was a list of challenges which we've already gone over, and just a few of them is -- very few stewardship projects can go ahead. There's no longer support to fisheries management to develop First Nations capacity, and no longer able to participate in foreshore planning.

Is it accurate that, I guess, in 2007 - and this is two years after the Wild Salmon Policy has been adopted - that the B.C. Interior didn't have the capacity to proactively implement it, since each of these items are part of the Wild Salmon Policy?

MR. CROWE: Essentially, the Habitat Management Program objective is to protect and conserve fish and fish habitat, so essentially we are trying to deliver the key objective of the policy which is the conservation of wild salmon stocks or conservation units.

With regards to Wild Salmon Policy processes, the habitat component is really dependent on having, under Strategy 2, a very good inventory of habitat values based on assessment studies and understanding of indicators and overall habitat condition. We essentially don't have a lot of that basic information. So while we're working towards the spirit and intent of WSP, I would say we're not doing it directly within the manner that WSP envisions or intends.

- Q And what about the SLIPP process? Do you see that as maybe being able to assist in the implementation of the Wild Salmon Policy, over time?
- MR. CROWE: I mean, yes. Again it essentially is working towards many of the objectives of the Wild Salmon Policy. It's integrating different interests. It's coordinating, it's considering trade-off and values of different parties. We are working towards collecting all the inventory and assessment information necessary to improve our decisions and it's working within, I think, the sort of general spirit and intent of WSP.
- Q Okay. Thank you. And moving just on to sort of a

related issue then to habitat, are you aware of a 1 concern raised by First Nations in the Interior 3 with respect to water licensing from agriculture and how that impacts salmon-bearing streams? 5 MR. CROWE: I would say that water management issues is 6 one of the greatest challenges we face in the B.C. 7 Interior in terms of ensuring conservation and 8 protection of fish and fish habitat. There's the 9 physical habitat piece as we've been discussing 10 for the last day and a bit, but we haven't -- and 11 I know that water use is going to be a later 12 panel. But the extraction of water for 13 agriculture and other land use issues is a 14 substantial problem in the B.C. Interior, 15 particularly in those areas that are very drought-16 prone where there's long extended summers with 17 very little precipitation. Yes, we share with all 18 others that water use is a very big problem for 19 us. 20 Historically, water licenses were granted 21 with no consideration of in-stream flows. Fish 22 don't even have rights to water right now under 23 the present Water Act. It is proposed for change 24 through the provincial changes to the Water Act 25 under a process called water modernization. 26 very optimistic that will protect and ensure 27 minimum-based flows into the future, but 28 essentially water is a very big problem. 29 wouldn't say just from agriculture, but 30 agriculture is a big part of that problem --31 Right. 32 MR. CROWE: -- with regards to over-licensing of the 33 past and present use. 34 And has DFO maybe done any mapping of those 35 streams that are of highest concern? I understand 36 from our clients that the Nicola River, obviously 37 now an endangered river, is over-subscribed from water licenses, but has any work been done to 38 39 identify other streams and rivers that would --

Yes. I mean, the last time that we did an

In the Kootenays I can give you an example of

I would

intensive mapping project was actually under the

Sensitive Stream Regulation. We worked with the

provincial Sensitive Streams and Protection --

province to identify streams that were

particularly prone to drought problems.

say that we have not really updated that.

June 8, 2011

MR. CROWE:

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an intensive mapping project to identify streams based on sensitivity, based on low flows, but I would finish up by saying work in the southern interior should be updated.

- Q Okay. Thank you. And I guess a final question for you, I'd like to pull up our document, Tab 2. This was a report done by the David Suzuki Foundation called "High and Dry, An Investigation of Salmon Habitat Destruction in British Columbia". Are you aware of this report?
- MR. CROWE: Yes, I am. I did read it when it first came out. I have not refreshed my memory of it, but I generally remember it, yes.
- A And, Mr. Salomi, are you familiar with this report as well?

MR. SALOMI: Yes.

MS. REEVES: I'd like that marked as an exhibit.

THE REGISTRAR: Exhibit 1020.

EXHIBIT 1020: Document titled "High and Dry, An Investigation of Salmon Habitat Destruction in British Columbia, July 11, 2007

MS. REEVES:

I'd like to just go to page 19 on ringtail, and fourth paragraph down in the grey there, if we could just go to that paragraph. This was a conclusion raised by a case that was investigated on Millionaire Creek in Maple Ridge, and citizens had complained about habitat issues there coming from local development. I won't go through all the details given the time constraints, but it talks about the lack of basically DFO's response in the second paragraph, and then it talked about what the local government did to mitigate the damage that was being done.

I'd just like to have you look through that greyed paragraph there. Basically it talks about:

The new Environmental Process Modernization Plan places the onus for fish-habitat protection squarely on the shoulders of project proponents and their consultants.

By this, I think they're talking about:

...QEPs who are deemed "qualified professionals." Less emphasis placed on enforcement and more on education, but without the staff, or a plan, to actually get out in the field and monitor progress, this method of fish-habitat management is doomed to failure. A watched industry is a responsible industry.

Would you agree with that conclusion or -- I guess mostly the last sentence where we're talking about if industry is watched and monitored, then perhaps they might become more responsible?

MR. CROWE: What I would say is - and I will try to keep this short - is that a professional reliance model can work. The challenge in an ecological context where we're dealing with such complicated environments, both from sort of an ecological prospective as well as regulatory, is there's a great deal of uncertainty. It's not impossible, if an individual is left to his own, to apply judgments or discretions that may not necessarily always result in the best outcome ultimately in terms of environmental protection.

My opinion is that the role of government is to provide a level playing field, ensure compliance, and that there is a role to ensure that standards are met by all elements of society. I clearly believe professional reliance has its place. I truly believe that government, one of its roles is to ensure that business is conducted in a fair and accurate manner.

- Q Mr. Salomi, do you have any comments, or would you agree with this statement?
- MR. SALOMI: I don't think I have any further comments to add to that.
- Q Ms. Wilkerson, do you have anything you'd like to add about compliance in terms of being able to watch industry and hold them to account under the RAR regulation?
- MS. WILKERSON: Well, I agree with what Mr. Crowe has said. From my experience with RAR is that many people are willing to comply and "do the right things" is often how they put it. But when it comes down to those individuals that basically require the hammer in order to comply with what they're supposed to do, there are going to be

- those individuals, and we do run into that. So in those situations, we are a little bit more challenged.
 - Q Right. And so do you think that perhaps -- I'm just trying to think of possible solutions or recommendations. Would you agree that perhaps maybe the QEP course should be made mandatory under the Regulations for instance?
 - MS. WILKERSON: I don't know if that -- I mean, most of the QEPs that I'm aware of have taken the course. It tells them how to do it. I guess we're talking about some ideological things that it's not going to teach.
 - Right. So, then, perhaps something like spot checks or actual enforcement provisions through RAR would be a better option.
 - MS. WILKERSON: Yeah, and we do do a lot of spot checks and monitoring, but it is the enforcement piece that becomes an issue.
 - And I guess my last question is are you aware of any, I guess, s. 35 or 36 had prosecutions or charges that have come out of the RAR process for either deleterious substances or HADDs? Are you aware of that, any of you, that have come out since RAR was implemented?
 - MR. CROWE: What I would say is use an example that Ms. Wilkerson is very familiar with. A large commercial development in the Salmon Arm area, there was an appeal mechanism within the Regulation that allows third parties who disagree with the outcome to ask for that review. That was used effectively to change substantially the footprint of that development.

I will then point to an example called Old Town Bay at the very east end of Shuswap Lake, very close to the town of Sicamous, where a proponent, a large development company, was aware of RAR, knew of their obligations. They had divided their development into different phases. They had actually applied RAR to one component and therefore obviously knew what was expected of them, and then went forward with development another part of it without conducting a RAR.

Because they had not conducted a RAR, after a thorough investigation that took two-and-a-half years, we took them to court and they pled guilty because they had no due diligence. They knew of

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Cross-exam by Ms. Reeves (FNC)

the standards and the regulations and because of RAR and their failure to comply with RAR, they 3 pled guilty. We had a successful prosecution and the single greatest environmental fine in Canada 5 under the **Fisheries Act**, a \$300,000 penalty. 6 was quite an important case for us and RAR 7 contributed to that. 8 MS. REEVES: Okay, thank you. Those are all my 9 questions. 10 THE COMMISSIONER: Thank you. 11 MS. BAKER: I have nothing arising. I hope my friends 12 don't. 13 THE COMMISSIONER: Thank you very much. Thank you to 14 all counsel. I also wanted to thank Mr. Crowe, 15 Mr. Salomi and Ms. Wilkerson for attending and for providing the answers to counsel's questions and 16 17 for providing us with your knowledge. Thank you 18 very, very much. 19 We're adjourned then until Monday at 10:00 20 a.m.? 21 MS. BAKER: Until Monday. 22 THE COMMISSIONER: Thank you. 23 THE REGISTRAR: The hearing is now adjourned until 24 Monday at 10:00 a.m. 25 26 (PROCEEDINGS ADJOURNED TO JUNE 13, 2011 AT 27 10:00 A.M.) 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

I HEREBY CERTIFY the foregoing to be a true and accurate transcript of the evidence recorded on a sound recording apparatus, transcribed to the best of my skill and ability, and in accordance with applicable standards.

Pat Neumann

I HEREBY CERTIFY the foregoing to be a true and accurate transcript of the evidence recorded on a sound recording apparatus, transcribed to the best of my skill and ability, and in accordance with applicable standards.

Karen Acaster

I HEREBY CERTIFY the foregoing to be a true and accurate transcript of the evidence recorded on a sound recording apparatus, transcribed to the best of my skill and ability, and in accordance with applicable standards.

Karen Hefferland

I HEREBY CERTIFY the foregoing to be a true and accurate transcript of the evidence recorded on a sound recording apparatus, transcribed to the best of my skill and ability, and in accordance with applicable standards.

Diane Rochfort