

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.)

Tuesday, November 30, 2010

le merdi 30 novembre 2010

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No appearance Heiltsuk Tribal Council ("HTC")

No appearance Musgagmagw Tsawataineuk Tribal

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PANEL NO. 6
Brian Riddell
In chief on qualifications by Mr. Wallace

Vancouver, B.C. /Vancouver (C.-B.)
November 30, 2010/le 30 novembre
2010

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THE REGISTRAR: Order. The hearing is now resumed.
MR. WALLACE: Good morning, Commissioner Cohen. Brian
Wallace, Commission Counsel, and I have nobody
with me today.

Before Mr. Timberg continues with his examination, counsel met this morning for a few minutes and an issue was raised qualifying experts. It's a compromise between doing things the old-fashioned civil litigation way and allowing the Commissioner to use whatever evidence you choose to use, which our rules provide. I am suggesting as a compromise that where a witness will be giving or has given evidence relating to a matter of expert opinion, that the curriculum vitae of that witness simply be filed, and if a participant wishes to question their qualifications or expertise, they can do that, but in the regular substantive cross-examination, rather than setting aside valuable hearing time for an exchange about qualifications. I don't think it should be a big issue, but it then at least has the curriculum vitae on the record to assist you in your reliance on the evidence.

On consideration of this panel, I think it was only Dr. Riddell who has provided us with scientific evidence in dealing with the genesis of the Policy, and I would tender Dr. Riddell's c.v. as the next exhibit.

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EXAMINATION IN CHIEF ON QUALIFICATIONS OF BRIAN RIDDELL BY MR. WALLACE:

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- Or. Riddell, you have looked at this c.v. It was dated March 19th, 2009. I gather you updated it, but this is substantially correct?
- A Yes, it is.
- Q Thank you. I would point out that one thing that that's not on here is that in 2010 you became a -- you were appointed by Canada as a Commissioner for the Pacific Salmon Commission, correct?
- A Yes, I believe it is actually on there.
- 46 Q Oh, is it on there?
 - A And that it would be the top of the second page.

MR. WALLACE: Oh, indeed, 2009. Thank you.
THE REGISTRAR: That will be marked as Exhibit 108.
MR. WALLACE: Thank you. And I will leave it at that, thank you.

EXHIBIT 108: Curriculum vitae of Dr. Brian Riddell

MR. TIMBERG: Timberg, T-i-m-b-e-r-g, first name Tim, counsel for Canada. If I could please have Exhibit 97 brought up, please.

CROSS-EXAMINATION BY MR. TIMBERG, continuing:

- Q Dr. Riddell, I have a few questions that I'd like to follow up on your presentation from yesterday morning, and perhaps we could turn to the third page of the presentation. At the top it says "A Convergence of People and Issues". And, Dr. Riddell, could you perhaps elaborate on the five points that you set out there as to the reasons, or the context for the change that was happening at the time. I don't quite understand what you mean by "Development of Conservation Biology and concern for Biodiversity". Perhaps you could elaborate on that point.
- DR. RIDDELL: Mr. Commissioner, I can certainly do that. I would refer it to the text that I provided to supplement the presentation. It does have more detail. That's where the 25 bullets were listed, and I condensed it just to five for this slide. The point you're referring to, "Conservation Biology", this was an area of science that literally did begin in 1981 at a conference in California and formalized into a society in 1982. And it really did bring the issue of the value of biodiversity around the world to the forefront, and the impacts of development was having on the world's biodiversity. It certainly did not pertain only to salmon. It was a very broad concern. There were issues going on when I arrived from Eastern Canada to the West that already showed there were concerns about biodiversity issues in salmon management, and that. And so it really did heighten the awareness of some Science Branch staff at any time about the --

- Q And why is -- why is biodiversity so important?

 DR. RIDDELL: Well, biodiversity is really the tie between the physical, chemical, environmental conditions with the actual animals, and it's that diversity of -- in salmon, it's that diversity of Pacific salmon that allows them to widely utilize the habitat, it provides both the opportunity for maximizing production throughout all the habitat, as well as provide the genetic diversity required for adaptation through time. That's the adaptability I referred to, to changing conditions.
- Q All right. And so then you've got as a second point, the "Explosion of genetic research methods and analyses". What are these genetic methods? If you could just provide a brief summary, and perhaps you could tell us when this genetic these new genetic methods have been developed, like temporally in time.
- DR. RIDDELL: There are a lot of methods, so I don't know that I can give you a full chronology. I can identify the major changes that occurred that are important to salmon.
- Q That would be helpful, and that's perhaps as they relate back to the Wild Salmon Policy as to how you are going to use these methods to assist you with the development of the WSP.
- DR. RIDDELL: Yes. Well, the development of a tool called electrophoresis, it really was developed in medical research for identifying genetic variations, and the -- what are called genetic variance in particular proteins. And what people discovered is that you could use these to identify specific populations, really, down to localized spawning populations of Pacific salmon. There's enough genetic diversity in salmon that you can use the genetic differences between local populations to identify them in mixtures such as an ocean fishery.

So there was both the combination of developing the biochemical tools that became available through electrophoresis, and mathematical tools in what was called "mixture analysis", to sample the spawning populations so you have genetic profiles of all of the individual spawning groups. And then you take a random sample in a fishery, as an example, and that is a

mixture of many populations. The mixture analysis, which is just a statistical tool, allows you to then come up with a best estimate of what the composition of the catch in that particular fishery and time really was.

Q Okay. And when did this tool become available?
DR. RIDDELL: Well, in 1982 I started a Genetics
Program in Science Branch at the Pacific
Biological Station. Our first person we recruited
was Dr. Ruth Withler, who had done her Ph.D. in
the electrophoresis tools at UBC. And we
immediately began applying this in biological
studies, looking at the population structure of
Pacific salmon and looking at the contribution of
populations to specific fisheries.

It was not really applied broadly in fisheries until probably the late 1980s, because there was sort of a building of trust in the tool, and how it can be applied, and that the results were accurate, and so on. It's very widely applied now.

But we've evolved from using protein analysis with electrophoresis to more of the molecular DNA analysis, which is much, much higher resolution. And it's now widely used in fisheries applications throughout the North Pacific. You can essentially now in a major hatchery, for example, if you sampled all of the adults that contributed to the next generation in a major hatchery, so you're talking about thousands of adults, you could then grab an individual fish and identify its parents just by using molecular DNA analysis. It's exactly the same as DNA fingerprinting type of applications, but just for fish.

- Q And then just for the assistance of the Commissioner, how does this technology practically get utilized?
- DR. RIDDELL: The DNA analysis, we have a very, very productive lab at the Pacific Biological Station, now managed by Dr. Terry Beecham and Ruth Withler, and each year they provide real-time analysis for the Northern troll fishery to identify a particular stock of concern, which is the West Coast Vancouver Island chinook stocks. And probably more appropriate to the Commission, is that they do real-time analysis in the summer, meaning a turnover of about 24 hours to 36 hours.

They provide information on all of the southern B.C. test fisheries for sockeye salmon. And that information is collected from the test fishing sites, brought to the Biological Station, and returned to the -- in this case to the Pacific Salmon Commission for the Fraser Panel, and used every week in making decisions about opportunities for fishing and the status of specific populations returning. So this ties the catch back to the particular

- Q So this ties the catch back to the particular conservation units, is that...
- DR. RIDDELL: Yes.
- Q Okay.

- DR. RIDDELL: You can bring it down to right to the specific spawning populations which could be one of several populations within a CU. You can get it down to the particular stream, really.
- Q And just for my benefit, when -- when did this sort of operationally sort of happen approximately, as a date? I'm not sure exactly when this became operational.
- DR. RIDDELL: I'm not -- I'm not sure I know the precise date, but it has been used for probably 20 years in various forms of electrophoresis, evolving to molecular DNA.
- Q Okay.
- DR. RIDDELL: It's been applied for sockeye salmon through the Pacific Salmon Commission, probably back to the late 1980s.
- Q Okay, thank you. And point 3, I think was clear.
 Point 4 you spoke about "Major new agreements and Pacific Salmon Treaty". Did you want to briefly -- sorry, Mr. Saunders?
- MR. SAUNDERS: I wonder if I might make an addition to what Dr. Riddell just spoke to with the genetics. Q Certainly.
- MR. SAUNDERS: I would say that in the last -- and Dr. Riddell's of course correct that it's been, you know, 20 years that it's been in place, but there have been huge strides probably in the last three to five years in terms of the technology developing in terms of the speed that we can actually process samples. Dr. Riddell pointed out that there are 24-hour turnaround, but we now have robots and technology that allows us to process samples at a much higher rate and a much lower cost. So its practicability in terms of

application to in-season management is increasing probably by an order of magnitude in the last years, so making it as a much more -- the potential for its application in fisheries management continues to grow in leaps and bounds.

Thank you. And perhaps you could describe how the

- Q Thank you. And perhaps you could describe how the Pacific Salmon Treaty just briefly I'm cognizant of time but just how the Pacific Salmon Treaty relates to the WSP development.
- DR. RIDDELL: Well, the Pacific Salmon Treaty, for those that are not fully involved in what it does, it's like the first comprehensive treaty addressing all salmon populations from about central Oregon through southeast Alaska. Fish don't really respect political boundaries very much, and so a lot of the fish that are caught in southeast Alaska are from Canada, and a lot of the fish that Canada catches on the West Coast of Vancouver Island are from the southern United States, and the two countries really can't fully manage their respective resources without dealing with the other country.
- So just for your assistance, Dr. Riddell, the Commissioner has heard from -- about the Pacific Salmon Commission in previous testimony. I'm just trying to ask for you to draw any linkages.

DR. RIDDELL: Okay.

- Q You can be more -- you can be more detailed in your response as to how it fits with the WSP.
- DR. RIDDELL: Well, the WSP is relevant to the treaty because the stock units that we're trying to conserve, now the conservation units, and previously just the major stock programs, they need to be identified so that we look at the fisheries that are actually impacting those particular stocks. Under the Pacific Salmon Treaty there are particular limitations imposed on some populations or some groups of fishes that we need to be able to monitor through time. So what really happened with the implementation of the Pacific Salmon Treaty was a requirement for Canada to suddenly become much more stock-specific in its consideration for both stock assessment and annual monitoring.
- And that's the -- now I understand Canada is developing escapement targets as a requirement.

 Does that fit in with the WSP?

DR. RIDDELL: Well, it very definitely fits in with --Canada has always had escapement targets for particular populations of salmon, but we had what we would have called now the target reference points, or in the past it was the optimum escapement value that they were trying to achieve, that on average would maximize production through time. And that the Wild Salmon Policy major change there was that each conservation unit would now have two points for management, which yesterday we called benchmarks.

Right.

- DR. RIDDELL: The upper benchmark is typically related to the target reference point of the past, the optimum escapement value. But the lower benchmark is much more precautionary in protecting the downside risk that you do not let a population become too depressed through direct actions of management.
- Thank you. If we could turn over to pages Okay. -- to the page titled "2. The Value of diversity in Pacific salmon". A fairly specific question: You referenced in your examination that in 1939 there was a recognition of "stock concept". was that exactly?
- DR. RIDDELL: Well, the stock concept -- sorry. Mr. Commissioner, the stock concept really simply recognizes the diversity or the differences between all the various different population of Pacific salmon that people were seeing throughout the West Coast. And "stock" actually comes from the old English agricultural use of a lineage of a particular animal or the stock derivation of that animal, and that, and that then became applied as sort of the common usage or terminology. really all that conference did in 1939, because the genetic basis of the stock concept was really not proven for about another 30 years.
- Q Okay. And over two pages we have the "Three principles emerge from understanding the Stock Concept". The first point being:

Adaptations that exist today reflect the past ... but evolution is a continuous process. Maintaining ADAPTABILITY in salmon is critical for their future.

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 Perhaps you could just as a -- generally how do you maintain the adaptability then, if it's -- it's critical for the salmon's future. What -- what are the -- why is that so important?

DR. RIDDELL: Okay. Mr. Commissioner, the process of adaptability is the critical element of the Wild Salmon Policy, where you have to maintain connectedness between habitats. You need to maintain the habitat diversity because it's the process that allows adaptation to occur. You have to have genetic variation for change to actually continue, and that. If you only focused on adaptation of now, it's really the response of the animal to past pressures that it's lived through, and that.

What we are really concerned about in the Wild Salmon Policy is maintaining the ability for the process of adaptability that leads to future adaptation to continue. And that's really why we evolved to the conservation unit, looking at a geographic distribution of the spawning populations. Not just about the total number of animals. A large number of animals could come from a single spawning population. But what we want to ensure is that we have a wide distribution of spawning populations throughout the habitat landscape, and all, to allowing for the ecological processes to continue, and that. So it's the process that leads to adaptation that we really have to protect for the future.

- Q Thank you. And over the page we've got a chart that you've provided, "Managing Diversity in BC's salmon", and you described the first column with the number 8,171 stocks in BC salmon. But can you elaborate what the second, or the third and fourth columns tell us.
- DR. RIDDELL: Yes. The middle column really is when you look at how many of the -- what they call "stocks", which are really the combinations of a particular species and a particular stream. Then they looked at the number of those actually have a sufficient track or historical record of data that you could do a credible assessment of. And so they were identifying that approximately 60 percent of the populations you could do some level of assessment on.

Q Okay.

- DR. RIDDELL: The third one is in their definition of 1 extinct and threatened and then healthy and so on. 3 They identified 2.1 percent of the 8,171 stocks, as they referred to them, were no longer in 5 existence. And then their next category had, I 6 think the value is 10.2 percent is the number that 7 were threatened at that time. 8 Okay.

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- DR. RIDDELL: But these are individual combinations of species and particular streams. They are not the conservation units --
- Okay.
- DR. RIDDELL: -- and that. And so I use this figure frequently to show people that we definitely have problems in particular stocks of concern we're all aware of, such as Cultus Lake sockeye. But the very vast majority of the -- salmonid diversity in British Columbia still exists, and that, and that we can work from.
- Thank you. And over the page you've provided an illustration, "Hierarchy of biological diversity". And I looked at this, and could you explain for us where you would draw the line of where a conservation unit fits there.
- DR. RIDDELL: No, I can't.
- Okay.
 - DR. RIDDELL: And that's why it's not there.
 - Okay.
 - DR. RIDDELL: And the reason for this is - not to be cheeky about it - but there is another diversity in salmon that there are particular populations that really are demes. They are individual localized populations that are demes and they are conservation units.
 - Okay.
 - DR. RIDDELL: The one that's closest to us is the Harrison River white chinook. This is one of the largest chinook populations in Canada, it frequently is the largest, and it is basically a single population with the exception of moving some fish to Chilliwack Hatchery, which is a hatchery-based production we don't include.

The majority of the CUs would be including the demes and the populations. So if you were to force a line, you would draw a line across the top of "Populations" to "Biological Races".

Okay. And so it just depends on each CU as to Q.

where the line would be drawn as to the biological complexity, and of -- and you'd have to look at the spatial variability geography of it, and then you have to look at the temporal variability, that's over time as so that they can evolve. Is that a fair summary?

- DR. RIDDELL: Yes, it is. The temporal variation doesn't really come into the actual definition right now, but the bounds of the CU could change through time.
- Q Right.

- DR. RIDDELL: Particularly with global warming and climate change, if it continues.
- Q Okay. All right, thank you. And then over the page, the next maps that for pink CUs there's only 13 in all of the Pacific and Yukon, that's what that says. I'd like to compare that, then, with the fact that the CUs for the sockeye are 230 in the lake and 24 in the river. So that's part of the complexity that you were talking about yesterday, is that the greater number of CUs for the sockeye species?
- DR. RIDDELL: Yes, it gets to the genetic legacy of the particular species and its distribution through British Columbia. Pink salmon have very, very little genetic differentiation in small geographic scales. You need approximately 500 kilometres along the coast that leads to differentiation that you can start detecting readily. The biggest difference between pink salmon is frequently within one river, but between the odd-year line and the even-year line, because there's no genetic exchange at all between those generations in pink salmon.

The point you're making on sockeye salmon is what I emphasized yesterday. There is enough genetic separation which reflects long-term isolation of those populations that commonly each lake is a separate conservation unit that we can — that we should continue to monitor and protect.

- Q Okay. So if you could put the next page. This definition, this is the definition of "conservation" from the Wild Salmon Policy, is that not -- that's the same definition?
- DR. RIDDELL: Yes, that's correct.
- Q And what is the conservation unit intended to capture?

 DR. RIDDELL: Well, it's intended to capture everything we were just talking about. It's the genetic diversity between the populations, the connectedness between populations within particular geographic landscapes. Because you do have breaks in climates and geography, the physical environments and you need to have within the conservation unit you want to maintain a distribution of the spawners throughout all the available habitat. That's the connectedness that allows processes to continue in that, and it also provides, call it an insurance, that you can't guarantee that some spawning population wouldn't be extirpated possibly by pure -- a landslide, for example, and that.

If you have a healthy conservation unit, with a network of spawning populations healthy around there, that is by far the best sort of management plan to allow re-colonization of that habitat as it is cleaned up and becomes available again.

- Q Okay. And so then can you just explain, then, what's meant by an "acceptable timeframe" in the definition?
- DR. RIDDELL: Well, that was incorporated because -and many times we really don't know populations
 are lost, and if you don't do something actively,
 then people think, well, it's gone forever, sort
 of thing. We want to provide bounds -- and salmon
 will not go across some of the boundaries rapidly,
 and the greatest example is what I said yesterday
 about sockeye salmon. When we've tried to
 physically move populations into barren habitat
 that's caused for maybe a fishing effect or a dam
 effect or a landslide, we are unable to reestablish sockeye populations when we move those
 around. And that's going across these barriers.

So really what we're talking about here is we want to recover the population so we don't have a long-term loss of production and the best way to do that is to have these conservations there that will fill it in, as I just referred to in that insurance policy.

Q All right. Thank you very much. And over the page you had said about expectations of climate change. You said that the -- so it's almost a definition you provided, that the climate changes when the future does not reflect the past. And

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could you just elaborate on what you meant by
that?

- DR. RIDDELL: Well, what we're talking about here is the uncertainty of the future. We don't know how extensive climate change will be, or how rapidly it will occur. If the future is not represented by the past, the most obvious example for us is in the application of forecasting. But what we're talking about here is you want to allow for the maximum diversity within the conservation unit, and for that you really want to talk about the numbers of animals throughout, as well as the number of spawning populations throughout the conservation unit. And to allow for the greatest opportunity for some genetic combinations to be present to allow the populations to continue in the future if climate does change. That is the real value of genetic diversity, is to allow for future change and the adaptation of the animals. All right. Thank you. And then if you could turn to the column "Number of CUs by species in BC", it's about four slides along, Mr. Registrar. That one there.
 - For the assistance of the Commissioner, could you contrast the sockeye salmon fishery to, say, the halibut fishery as to how -- how that relates to stock concept and this idea of biological complexities. Trying to from a fisheries management perspective, we've got these 435 CUs for the sockeye fishery, and I'd like you to compare that to another fishery, and I'm picking out halibut as an example to help explain the -- what's required to manage one as compared to the other.
- DR. RIDDELL: I understand the question. I'm just trying to think of a clear way to answer it. If we start from the halibut, halibut being a marine species, they do have spawning aggregations or locations, if you want, and there are some genetic differences through large geographic areas of the Pacific -- well, along the western -- the eastern Pacific. But really the genetic differences there are very, very small. The real issue in the halibut fishery is assessing the biomass of fish that are currently available, and comparing that against what they had seen in the past in terms of what they call the virgin biomass or the original

biomass. And then they would look at allowable harvest rates, how much can be removed from that to sustain future populations.

So you don't really see a great deal of application of the stock concept in the halibut fishery. You do see it more in some other marine fisheries, such as rockfish where you have multiple species, which is a similar concept but really are species-specific differences.

What happens in Pacific salmon is that there are very, very few fisheries that don't fish multiple populations or stocks and now what we're talking about are conservation units.

So the real value, it still looks like a large number, but when you consider that in the past people have talked about roughly 8,200 so-called stocks that we've referred to in that table, you're now down to a number that's 435,000 in this table across all species. And when you get down to sockeye salmon, most of our fisheries still occur in the oceans, and they are on multiple aggregations.

The conservation units are not going to change our management process fundamentally. All right. What they are going to do is look at what's the change in accountability of the distribution of the spawners when they get back into fresh water.

So now what you need to do is you're looking at the abundance of fish coming through the fishing regions outside. That's where I referred earlier to the test fisheries. The test fisheries look at the relative catch rates that they've seen in the past, and they are then used in formulas to look at what would the projected return biomass be given that harvest, the number of animals caught in a test fishery. You then do the DNA analysis to understand the stock composition, and as the season progresses you build up this trend in the return abundance by conservation unit now.

This also has to go through time because there's a run timing curve that occurs. They don't all come in in a day. They come in through most of them over about month of the populations returning to the coast, and that.

And so this is the discussion I presume you had previously with the PSC in terms -- because

that's their responsibility for Fraser sockeye is monitoring all these test fisheries and the return of the stocks. As they return to the coast, they then go through the Fraser Panel in the discussions for the Panel Region about what allowable harvest would be.

So the complication is one of not just looking at biomass, you're now looking at biomass for every single CU.

- Q All right. And so I'm just trying to help understand, though, the -- so you've described the management of the Fraser River sockeye and I'm just trying to put this -- this particular fisheries management in its context of the other management models that DFO's doing as to help understand the -- what the WSP was -- is intending to do, and how that was different and new at the time, I'm presuming. I'm just trying to put it in its context as to when you were developing the WSP, what you had to learn to make this work.
- DR. RIDDELL: Well, maybe I should clarify. In developing the WSP we were looking at conserving the genetic diversity throughout the freshwater habitats, protecting the habitats more thoroughly, monitoring the habitat change, because there's very poor long-term monitoring of habitat loss and that, so we wanted to monitor that, we wanted to incorporate the animal in its habitat within its ecosystems and respect the ecosystem values that people refer to, and that. Those are the sort of interlinked three information strategies that we've referred to. That's the major change in the Wild Salmon Policy.

The actual in-season management is very little changed, except that your assessment criteria now relate to the conservation units. And that not to a limited number of major stocks. They will still manage the Fraser sockeye in run timing, because that is the natural progression of the animals returning to the coast. They come in in run timing segments. And the assessment will now be done, looking at instead of talking about the stock ID, you might talk about this conservation unit ID, because that's the level that we want to look at these days.

Q Okay. All right. Well, thank you. Those are all my questions with respect to your introduction.

I'll now do some follow-up questions for the panel with respect to issues that arose yesterday.

If I could have Exhibit 8 brought up, which is the Wild Salmon Policy, and if we could turn to page 29.

And, Mr. Chamut, yesterday you were describing concerns with respect to the Ministerial discretion, and perhaps you could just explain how the Wild Salmon Policy explains and deals with the issue of the Ministerial discretion under the *Fisheries Act*.

- MR. CHAMUT: I'm assuming that your question is pertaining directly to the comments that are on page 29 that do assign some discretion to the Minister with respect to conservation of conversation units.
- Q Exactly.
- MR. CHAMUT: Okay. In the development of the policy we were fairly -- I mean, we were very clear on the need to ensure that we had a policy that protected the genetic diversity of Pacific salmon. But at the same time we also recognized that it would be probably poor public policy to have some -- to have an instrument like this Policy that would actually completely tie the Minister's hands with respect to protection of some CUs in exceptional circumstances, and I'd like to illustrate that by just a hypothetical example.

In some cases it's easy to conceive of a very small conservation unit, let's say for sockeye, for example, and that conservation unit has very low productivity, there's very low abundance, and there could be some sort of catastrophe like a slide or some other event that would essentially doom that population to extinction. And it would undoubtedly in a situation like that there would be an analysis of the problems, what some of the remedies might be and efforts would be made to seek a solution to try and prevent the extirpation of that population. But that analysis may turn out that costs are excessively high, likelihoods of success are extremely low, and in those circumstances the Minister under this policy would be recognized to have discretionary authority to be able to say we are not going to expend a large amount of money and effort to try and prevent that inevitable extirpation of that population.

And in those situations -- and this has been a very controversial part of the policy, because a lot of individuals have assumed that this undermines the commitment of the Department to conserve conservation units. And that's not the case. And clearly the Department in putting this particular proposal together indicated that any exercise of that Ministerial discretion would be done in exceptional circumstances. And where such a circumstance would come up, the policy is very clear that it would not -- that a decision would not be taken sort of arbitrarily by -- by a bureaucrat who would decide on his or her own that they were not prepared to continue to take efforts to protect this conservation unit. Rather it would be something that would be part of a public consultation process with due input and consideration from all interests, and a decision would at the end of the day be rendered by the Minister, but it would not be done except in exceptional circumstances, and in my opinion, very rarelv.

- Q Thank you. Dr. Riddell, yesterday you were discussing that there -- that the relationship between conservation units, the lower benchmark and the FSC Food, Social and Ceremonial Fisheries, and you commented about that there are decisions where First Nations want to fish below the lower benchmark. Could you elaborate on that statement you made.
- DR. RIDDELL: Well, the complication comes in here and when you have a bottom line on what a strict conservation amount will be. There is a whole area in the science of conservation biology called minimum viable populations. And for a number of years people tried to estimate these very small populations. And for salmon, many of the estimates come down to few hundred fish would be a minimum viable population.

The difficulty with those sorts of analyses are that they very frequently don't take into account sufficient levels of uncertainty in the environment and in our management control. Our ability to recognize a very small population in a large population — in a large fishery, sorry, is extremely difficult. And so the minimum viable population frequently puts the particular

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population in a great deal of risk in that. And so the issue for us was that we wanted to define a minimum population size, which is the lower benchmark, including an allowance for uncertainty in the annual returns and in management control. And that is above what would be necessarily the valued estimate if you only looked at the biology of the animal. All right.

There are in cases where the conservation limits where some salmon populations have been more like the minimum viable population, very, very small levels, and that, and so if you then got into a debate about what is the actual biological conservation level, it will be below the lower benchmark. Right?

And so we really wanted to try to build into a system that respected that there -- if there's very limited opportunities to fish, and there are in some of the Interior First Nations fishing areas, then they need to have food from particular conservation units.

Right.

- If that occurred on a regular basis, it DR. RIDDELL: could be a problem. If it occurred just very periodically, then it wouldn't necessarily be, if there is a limited harvest, and that. But the lower benchmark needed to take that sort of a eventuality into account. And that's why one of the reasons we built in the buffer, and that's what really involves the sort of conflict I was referring to.
- All right. Thank you very much. Q Just for clarity, Mr. Saunders, could you advise the Commissioner who was on the development team and what departments within DFO were part of that.
- MR. SAUNDERS: Yes, I can. My colleagues can help me out if I'm missing something, someone. But the panel that you see here were all part of the development team for the Wild Salmon Policy. Jim -- Dr. Jim Irvine and Dr. Riddell from Science. We also had from Fisheries Management, Mr. Sandy Fraser was a Lead Policy Analyst, and from the Habitat, Oceans and Habitat Group, Sue Farlinger was a member. And am I missing anybody? Yes, Andy -- Andrew Thomson represented Fisheries and Aquaculture Management as the lead from Aquaculture. And Carol Cross was also involved

from Oceans and Habitat. Yeah, that's the group.
Thank you.

- MR. SAUNDERS: Sorry, I should -- Pat Chamut, obviously, as well.
- Q Dr. Irvine, yesterday you were talking about the need of the Wild Salmon Policy to acknowledge uncertainty, and if you could describe for the assistance of the Commissioner how lessons learned on how to manage risk and uncertainty.
- DR. IRVINE: Well, certainly a good -- I think you have to understand that in environmental sciences, as I mentioned yesterday, there is always uncertainty. So we really don't -- it's very difficult to predict what's going to happen in the future when it comes to the environment, and it's also extremely difficult to anticipate precisely how the fish are going to respond.

Now, one of the ways that we did incorporate uncertainty in the Wild Salmon Policy is, as Dr. Riddell pointed out, in the identification of the lower benchmark. And so that benchmark included the buffer, as Dr. Riddell mentioned, between it and a point at which a conservation unit might be considered at risk of endangerment under the **Species At Risk Act**.

But the buffer, or at least the lower benchmark, also included, as I think Dr. Riddell mentioned, any uncertainty as might be reflected in terms of our understanding of management implications on the stock, as well as the actual population size. So that we -- we recognized that there was uncertainty and we wanted to -- it really links into the precautionary approach. And so we were really trying to ensure that the lower benchmark was established in a precautionary way.

- Dr. Irvine, could you explain how the concept of a
 conservation unit relates to a designatable unit
 under the Species At Risk Act. And I know you've
 -- I know you have a paper on this. I don't know
 if you need that, or if you just --
- DR. IRVINE: Sure.
- Q -- can describe the relationship between that, the designatable unit in the *Species At Risk Act* and a conservation unit.
- DR. IRVINE: Sure. And I do have some expertise in this area, having written the first COSEWIC Report on the Pacific Salmon, and I have an article in

the peer-reviewed literature dealing specifically with the *Species At Risk Act*, as well as the other article that you've mentioned.

It's quite interesting, because there was an overlap in the development of the WSP and the *Species At Risk Act*. So as we described yesterday, the WSP, the first version was released in 2000, the final version was released in 2005. The *Species At Risk Act* went through multiple iterations in the Canadian Parliament and was eventually passed in 2003 and fully ratified in --2002 it was passed, and fully ratified in 2003, or fully implemented in 2003.

So that both the *Species at Risk Act* and the Wild Salmon Policy acknowledge the importance of within-species diversity. So that as we've talked about this morning, sockeye salmon, *Oncorhynchus nerka*, is a taxonomic species. As Dr. Riddell pointed out, we have over 200 conservation units within that taxonomic species. So in the WSP we use the term "conservation units". In the *Species At Risk Act* the term that they use are "designatable units".

Now, in developing the Wild Salmon Policy we attempted to align the conservation units as much as practicable with the minimum unit that could be listed under the Species At Risk Act. So the definition of a species in the Species At Risk Act, I don't have it committed to memory, but it doesn't -- it could be a taxonomic species or it could be a geographically or genetically distinct unit or variety within that species. So that there are -- there are similarities. So there was sort of an overlap in terms of the chronology of the development of both the Wild Salmon Policy at the Species At Risk Act. We took that into consideration as we were developing the Wild Salmon Policy.

So to date, you know, we have identified the conversation units under the Wild Salmon Policy as we've seen yesterday.

Under SARA, under the Species At Risk Act, the designatable units, some of them have been identified, so initially the way it worked is they focused in on key units, such as Cultus sockeye, Sakinaw sockeye, Interior Fraser coho, and Okanagan chinook, and so they keyed in on those

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specific designatable units. My understanding is they're currently right now attempting to formally identify the designatable units for Pacific salmon, and time will tell how much they overlap with the conservation units.

- Okay. And when you say "they" are working on the designatable unit, who is they?
- Species At Risk Act, SARA, there's DR. IRVINE: Okay. actually three stages. So the first step within SARA is the identification of the units, and the second stage is the categorization of the degree of endangerment, whether or not that species is actually at risk of extinction. That component is done -- is carried out by the -- by COSEWIC. COSEWIC is the Committee on the Status of Endangered Wildlife in Canada. That group is -is not part of the Government of Canada. It's a -- it's an independent body which is at arm's length from the Government of Canada. And there are Fisheries and Oceans scientists that do participate in the process, and are members of the -- of the different working groups or subcommittees within COSEWIC. So the one dealing with salmon is the Anadromous Fish Commission -no, Fish Committee, I think, if I've got the right term? Anyway, there have been several DFO staff that have participated in that process.

So I'll just make one other point, is that it -- there's some really interesting analogies between SARA and the WSP. And one of the more important ones, I think, is COSEWIC looks at the -- essentially categorizes a unit as to its biological degree, it's -- whether or not it is endangered or not is determined based on scientific data. So it's very analogous to what goes on within Strategy 1 of the Wild Salmon Policy, where what we do is we identify conservation units, we identify benchmarks, we identify whether or not we categorize the status, based on scientific information.

So that -- within *SARA* that is -- that function is determined or controlled by COSEWIC. And then it's the recommendations from COSEWIC are presented to the Government of Canada, and it's the Government of Canada that actually has the ability to incorporate social and economic information in determining whether or not a

species that was recommended for listing by COSEWIC would in fact be legally listed. And that's in a sense, that's what goes on with Strategy 4 in the Wild Salmon Policy, because that's where the social and economic information come into developing a decision-making process, or a plan for that particular unit.

MR. TIMBERG: That's a very helpful parallel. Thank you for sharing that.

I'm conscious of the time. Is it appropriate to have a -- or shall we continue for...

THE COMMISSIONER: Carry on.

MR. TIMBERG: Okay, I'll carry on. Thank you.

Q And then if we could have -- we're on the Wild Salmon Policy. If we could turn to page 8, and, Dr. Irvine, yesterday you were brought to a draft of the Wild Salmon Policy back in 2002, and you were asked questions about the three principles. Perhaps you could briefly just take the Commissioner through the four principles that

actually were passed.

DR. IRVINE: Okay. The -- as I recall, the primary difference between in terms of the principles between the 2002 draft and the 2005 draft, was the

Honour obligations to First Nations.

second guiding principle, which is to:

And I'm going by memory, but I'm quite sure that that was not incorporated in the early draft. So that specific principle came as a result of our meetings with the First Nations and others.

The first principle, the guiding principle:

Conservation of wild salmon and their habitats is the highest priority.

That's really the number one principle. And the first, it essentially stems from this New Directions document that I mentioned yesterday. Right.

DR. IRVINE: So the New Directions document which was released, I believe in 1999, and then there was four significant policies that came out of it, including the Wild Salmon Policy, identified that conservation of wild -- conservation of salmon was the first priority. So that was kind of our --

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provided the direction to include that -- that principle.

As we discussed yesterday, the concept of "Sustainable use", I mean, why are we conserving these salmon? Well, it is in large part so that we will have sustainable use, long-term use. it was clearly important that -- I think it's very important in any sort of controversial policy that you do it in an open and transparent way. Because you're not going to please everybody, so that it's far better to put everything out on the table as much as practicable, so that -- so that people from all persuasions can see what you're doing. And yesterday Commission Counsel stated that there were no benchmarks and that there were no CU -- no work was being done on the status of conservations units being monitored. And I'm wondering, Dr. Irvine, if you could, and perhaps Mark Saunders, if you could both answer this question as to whether in fact there are any benchmarks. work is being done on benchmarks under Strategy

DR. IRVINE: Sure. I'd love to sort of start and then I'm sure Mark can add to it.

First of all, I think with regard to the second half of the question, whether or not we are monitoring status, I mean, we've been monitoring the status of salmon for decades. So it's not as if we had to wait for the Wild Salmon Policy to monitor status. So it is true that we have not formally identified benchmarks for all of the conservation units. However, there has been a paper prepared by Dr. Carrie Holt et al, that basically went through the process by which to identify benchmarks. So that -- that's a peer-reviewed document that has been accepted through the CSAS process, and I think it's in the documents somewhere.

So we have -- we've essentially determined the process by which benchmarks will be identified. There was meetings, I think you know, two weeks ago, in Vancouver or in Nanaimo, where there were Fraser sockeye were the topic of conversation, and I think I'll let Mark deal with that, because I wasn't at the meeting. But I don't want to leave the impression that we're not monitoring status. And we've had a very active

stock assessment program for a couple of decades where that's exactly what we do.

Q Okay.

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- MR. SAUNDERS: Yes, Mr. Commissioner. I don't have much to add to what Dr. Irvine said already. But in fact the Department, as Dr. Riddell's pointed to, the stock concept, for decades we -- certainly a decade, we've been managing and taking into consideration in our Integrated Fisheries Management Plan, stocks of concern. So the stocks that we know are in trouble are -- we're now relating them to CUs, but the managers, as Dr. Irvine pointed out, were not waiting to have formal identification of CUs and benchmarks to know that we need to take management action as required under the Wild Salmon Policy. So in fact we have been assessing and managing and dealing with stocks of concern for quite some -- for a long time.
- Thank you. And Dr. Carrie Holt will be here for the second day panel and she can speak to her work.

And with respect to the Implementation Plan, yesterday there was some conversation that the Commission, you said it was semantics, that we do have an implementation plan. And I'd like to take you to a series of documents to have you identify. Mr. Registrar, if we could start with -- I'm at Tab 17, and we'll start with Exhibit Q, or Tab Q. And I'm not sure who's best positioned to speak to this. Mr. Saunders, could you -- have you -- are you familiar with this document?

MR. SAUNDERS: Yes, I am.

- And could you describe what it is?
- A I think yesterday when I referred to semantics, you know, there was a question about where the implementation plan was, and I think we -- this would have been the first cut at an implementation plan that I was involved in, but it subsequently, I think, we -- I don't think we carried on -- we used the "Workplan" phrase to describe more of our work going forward. So this was a first attempt at a results-based management framework, which builds on the Treasury Board of Canada's approach to managing initiatives within the federal government. So it follows a fairly standard framework.

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And we developed -- took the resources, the million dollars that had been agreed in the announcement that we saw yesterday, and developed a workplan for each of the strategies. And this was -- this was the first sort of plan that was put in place, or that was at least proposed. And subsequently a lot of the material, the frontend material on it was dropped in favour of simply updating the timelines, the diagrams and progress relative to the objectives that were laid out in the six strategies.

MR. TIMBERG: Mr. Registrar, could this be marked as --Mr. Commissioner, could this be marked as the next exhibit.

THE REGISTRAR: Exhibit 109.

EXHIBIT 109: Wild Salmon Policy Implementation Workplan, Results-based Management and Accountability Framework Draft, Fisheries and Oceans Canada, September 20, 2005, Version 1.0

MR. TIMBERG:

- And if we could turn then to Tab N in the same binder.
- MR. LUNN: 17-N?
- MR. TIMBERG: Yes, 17-N. And this, if you could flip through to page 8 and 9 to show the witnesses. And then there's one, and there's a Gantt chart.
- And Mr. Saunders, have you -- are you familiar with this document?
- MR. SAUNDERS: Yes, I am.
- And this is the "Wild Salmon Policy Implementation Workplan 07/08", and if you could just briefly describe what this contains.
- MR. SAUNDERS: Well, it's difficult for me to without -- just looking at this particular page. I think this was just some of the -- can you maybe back up so I can see what the...
- Perhaps page 5 would be of assistance and the top two paragraphs.
- MR. SAUNDERS: Right. So there's interest in providing in addition to just the workplan what we're doing with respect, so you can see that we're - Item 1, "Standardized monitoring of wild salmon status" talking about the amount of money that would be -would have been allocated in 2007 and fiscal year

1 07/08, and the activities that we were undertaking
2 in that year. So "Conservation Units definition",
3 "development of benchmarks and stock assessment
4 frameworks". And then further down on page 8,
5 that would have provided for the -- for our
6 Steering Committee some issues around the
7 implementation, the fact around "Costs" through to
8 "Partnership opportunities".
9 I should say that yesterday we spoke about

I should say that yesterday we spoke about the difficulties in the development of the policy and on this implementation side and the development of workplans, we've had a lot of very positive engagement and resources being brought forward by NGOs and -- and others to assist in the implementation. So knowing -- there was an interest in knowing some of that context with respect to that workplan.

MR. TIMBERG: Okay. And, Mr. Commissioner, if this could be marked as the next exhibit.

THE REGISTRAR: Exhibit 110.

EXHIBIT 110: Wild Salmon Policy
Implementation Workplan, FY 07/08, dated
August 13, 2007

- MR. TIMBERG: I have three more of the same documents for each year, which I would like you briefly to identify. If we could turn to in the same Exhibit 17, Tab J, and this is the 2008/2009 -- I understand this is the 2008/2009 Workplan, and at page -- there's also a Gantt chart in here.
- Q Mr. Saunders, are you familiar with this document? If you could perhaps, Mr. Registrar, take him through a couple of the --
- MR. SAUNDERS: I am not familiar with this document. I was -- I returned to the Department in February of -- I was on assignment with the Pacific Salmon Foundation through to January of -- I came back in February of 2009.
- Q Okay. That's fine, then. And I'll leave this for now. Perhaps we'll have plenty of time to talk about this during the implementation stage tomorrow.

Perhaps just for the assistance of the Commissioner you can just briefly outline now an overview of the steps that -- the organizational steps that DFO took with respect to

implementation.

MR. SAUNDERS: With respect to implementation?

Q Yes, just to let us know, to clarify, so there's no uncertainty with respect to this issue.

MR. SAUNDERS: Yes, Mr. Commissioner. As that first document in 2005, I think we followed a very similar process in subsequent years. The six strategies really are the implementation plan, subject to details. What we knew when we built it, the Wild Salmon Policy, that it would be very difficult to, even in that first year of implementation, to fully develop the timeline and the costs, and what it would really take to complete the Policy in its fullness. And you know, knowing that the full implementation was probably between five and ten years out, we did lay out each year, we revisited -- we developed an annual workplan and revisited with our Steering Committee on, I would say on average, probably every six months, we, as that last deck was an update to our Operations Committee, which was formalized as the Steering Committee for the Wild Salmon Policy and other initiatives that needed to be connected in terms of the Change Agenda for the -- for the Department of Fisheries in the Pacific Region.

So we routinely came back to understand where — to allow senior management to understand where we were, and to understand the workplan and the resources that we were putting towards it. I think fair to say that the million dollars has continued, for the most part, to even the present, in terms of making resources available within the Department, and continue to work on it. And that Workplan Results Framework was applied and — was ongoing and applied annually.

- MR. TIMBERG: Thank you. Mr. Commissioner, I would like to just now take the -- each of the panel members through their will-say statement, and then I will have concluded my examination.
- Q Perhaps I'll start with Dr. Irvine. And if you could pull up your will-say statement, it's Exhibit 103. And, Dr. Irvine, is there -- I'll just take you through each section. Are there any comments that you would like to add to your witness summary with respect to "The development of the Wild Salmon Policy"?

- DR. IRVINE: I actually think we've covered this adequately this morning and yesterday.
 - Q Okay. And with respect to the second section, "Science-based biological benchmarks versus management reference points".
 - DR. IRVINE: Yes. And we did cover this somewhat yesterday. I mean, I might just reiterate that that we in Strategy 1, we used the term "benchmark" rather than "reference point" simply because reference points are often associated with societal values. And by using the term "benchmarks" in Strategy 1, we were not precluding the use of the terms "target reference points" and "limit reference points" in Strategy 4. But it's important to understand that Strategy 1 is about the biological status of the resource and not is not directly linked to changes necessarily to changes in fisheries management.
 - Q Okay. And I note that your witness summary covers -- you'll be here tomorrow on the day 2 panel, so at the end of page 2, I won't -- I'll presume that that will be the line for your -- your testimony for tomorrow.
 - DR. IRVINE: That's what I've been assuming, too. O Nay.
 - DR. IRVINE: Thank you.
 - And, Mr. Saunders, if you could perhaps pull up Exhibit 101, Mr. Registrar. My understanding is that perhaps page 1 to 5 are -- is your testimony with respect to "Development" and then page 6 it deals with the "Implementation Team". Do you have any comments that you would like to add with respect to your witness summary?
 - MR. SAUNDERS: Mr. Commissioner, I am satisfied -nothing I would like to add specifically on my
 summary of evidence statements, but in the context
 of sort of some of my knowledge and understanding
 of the development of the Wild Salmon Policy and
 some of the discussion that we've had here, I
 would appreciate an opportunity to add a statement
 around sort of the process of Science, as the Wild
 Salmon Policy -- Science, as it informs
 Management, how it's changed as it's
 transformational in the context of the Wild Salmon
 Policy, if I might.
 - Q Yes, please do.
- 47 MR. SAUNDERS: I wonder if we could bring up the Wild

Salmon Policy, and I forget the page that has the picture of the -- not the house, the Red/Amber/Green benchmarks, Figure 3. It's page 17, I think. Yes, page 17.

MR. SAUNDERS: Yeah, I think a lot of the discussion,
Mr. Commissioner, has been around the importance
-- the difference between benchmarks and some of
the limit reference points, and whether or not we
provide enough prescription in going forward. And
Dr. Irvine and Dr. Riddell have talked a lot about
the need to consider social and economic, and
where that takes -- how and where that takes
place. And I think the Wild Salmon Policy, and
unless you sort of -- I think it's difficult to
understand that it may be the subtlety of the
difference that the Wild Salmon Policy is putting
forward.

But I think if you look at that -- and Dr. Riddell has spoken to the lower benchmark, the fact that it has to consider uncertainty, it's got a buffer built in there. But really from a management perspective, there is no limit reference point in there that says if the status of a conservation unit hits a particular level in there, like the Red, something is going to happen. We're going to stop fishing. We're going to take some action. The only action that's prescribed in the Wild Salmon Policy at that lower benchmark is to say that we will develop a plan to move us out of that Red Zone. And as Mr. Chamut has pointed out, that in extreme circumstances you could in fact decide not to take any -- any action.

So I think part of the success of the Policy and the continued sort of recognition of it, is that the Minister, as well as all of the interests that have an interest in salmon, need to have a say in how -- where you actually set a target reference point, and that goes beyond assessment of its status, so you can arrive at any point in that continuum.

And I think Dr. Riddell was pointing out that, you know, that when asked whether or not what changes to fisheries management were taking place with respect to the number of CUs that we were seeing, and he correctly pointed out that we will still continue to manage groups of run-timing groups in mixed stock fisheries, but the Wild

Salmon Policy would have us -- have the Department being accountable within that management scheme for the -- for each of the CUS that it's responsible for. So how do you do that? How do you bring groups together in a way that's going to meet both social, economic and conservation objectives.

And I'd like to flip forward to Appendix 2, which is what's proposed as a five-point planning procedure under the Wild Salmon Policy. It's on page 45. This is something that's been test-driven on an initiative known as the Fraser Sockeye Spawning Initiative, that's taken place over the last five to eight years.

- MR. WALLACE: Excuse me. Mr. Commissioner.
- MR. SAUNDERS: Yes.

- MR. WALLACE: This strikes me as getting well into the issue of Strategy 4 and the relationship to current management, which I think would be more efficiently dealt with at the second go-round with the Wild Salmon Policy after Harvest Management has been heard.
- MR. TIMBERG: Well, it's my position for this panel as the Development Panel, and so there has been a silo created of Strategies 1, 2, 3 and 6, and we're not to talk about 4 and 5, but for this panel to explain how they developed the Policy, I think there should be some latitude to allow them to explain the whole package, because you can't really cut it up so easily.
- MR. WALLACE: I agree with that, Mr. Commissioner, and I had been conscious of the line between putting the whole process into context and getting into this particular step, which I see Appendix 2 is doing. So I think that this crosses the line.
- MR. TIMBERG: I'd ask that the witness be permitted to just describe how this Appendix 2 fits into the development of the WSP pack.
- THE COMMISSIONER: Very well. Perhaps before we do that, this might be an appropriate time to take a break.
- MR. TIMBERG: Thank you.
- THE REGISTRAR: The hearing will now recess for 15 minutes.

(PROCEEDINGS ADJOURNED FOR MORNING RECESS)
(PROCEEDINGS RECONVENED)

CROSS-EXAMINATION BY MR. TIMBERG, continuing:

Q Mr. Saunders, if you could briefly describe, then, Appendix 2 and how that fits within the overall framework of the WSP.

MR. SAUNDERS: Yes, Mr. Commissioner. I think Appendix 2 is, as I was saying, I think is a critical point in sort of changing the process around determining long-term objectives for both biological, social and economic, and lays out a way to go forward in doing that.

In fact, in developing this, I had some interaction with the Commissioner of the Environment and her office around just how this was being done elsewhere. There were no examples that they could provide me at that time, despite a requirement under sustainable development, how to do it. So I think this was a -- but it was a critical part of the policy we recognized in terms of how do you bring people together to set joint objectives in the absence of including prescriptive mechanisms within the actual policy, which we did not want to do. We needed a process to make that happen.

I think later, under the implementation, we'll talk about how that's progressed. But right now, I think it's important just to understand that this is a real change in the way Science and management would have operated. And even up to this point, the process within Science is to have Science produce a paper that describes the status and tries to encompass all the requirements to go forward in the context of forecasting, et cetera, and then it would go into a separate forum to allow -- and some hard line being drawn in the sand around conservation, and then it going forward into another forum where managers and resource users would try to come to grounds on an objective.

This is a fundamental -- and I think we talked about some of the tension in the development of the policy, and that, when this group, my colleagues, came together in 2003 and '04. There was a lot of tension that Science was -- wanted to be involved in setting those hard and fast lines in the sand, and we evolved to the point around the benchmarks and another way of

doing business. I spoke to Collaboration yesterday, and I believe that this five-step process that we put into the policy is about how do you decide where to put that line on your red, amber, green, when it's time to set a target for escapement or other management actions.

The heart of it is coming -- really is about an interest-based process that brings people together. Step 1 is about identifying the priorities, so we're all in agreed (sic) about the state of the conservation units and what the priorities are. It doesn't necessarily have to be a conservation unit that's in trouble. It could be a conservation unit that's in the green. That's very important that we need to have a plan and solid objectives and understand those objectives jointly.

If you could just maybe flip down and expose step 2 and 3?

- MR. TIMBERG: All right, Mr. Registrar, if -- yes, thank you.
- MR. SAUNDERS: Step -- maybe -- so Step 2 would be around identifying resource management options. So if something is in the red zone, what are our options around habitat, around fisheries management? What levers could we potentially pull?

Then Step 3 is around identifying performance indicators, so when we're going to evaluate those management options, what are the -- what are the social and economic considerations that we need to think about: socially around First Nations and ceremonial or economic fisheries. What are the needs of the recreational sector? What are the needs of the general public in those areas? Get those all on the table. Develop some indicators.

Step 4 is then to use those indicators and assess the various options that we've got. So if we're going to maintain -- set a limit to try and escape enough fish to keep it in the -- it could be even in the yellow or in the upper red. What are the implications? We move around in that space to try to find, as we talk about under sustainable development, a net positive result in all three accounts, ecological, social and economic. And then we come together to select the preferred alternative.

- I think that's a really fundamental way that we would move forward in developing plans for habitat, for CU's, and any -- anything related around the resource management related to meeting the objectives of the Wild Salmon Policy, a fundamental change.
- Q Okay. Thank you very much. Mr. Saunders, is there any other comment that you would care to add to your witness summary?
- MR. SAUNDERS: No.
- Q Okay. Thank you. Mr. Chamut?
- MR. CHAMUT: No, I had ample opportunity yesterday to clarify any issues that I wished to, and I'm quite happy with the statement as it is written.
- Q Thank you. Dr. Riddell?
- DR. RIDDELL: No, I have nothing further to add to my witness statement.
- MR. TIMBERG: Thank you very much. Those are all my questions.
- MR. WALLACE: Thank you, Mr. Commissioner. I have the Province of British Columbia next on the list.
- MR. PROWSE: Yes. D.C. Prowse, Mr. Commissioner, for the Province of British Columbia.

CROSS-EXAMINATION BY MR. PROWSE:

I think many of the interesting aspects of this will be dealt with by the -- when we get to the question and implementation. But I note that Dr. Riddell is not going to be part of that panel.

So, Dr. Riddell, I wanted to ask you to turn to your statement at -- which is Exhibit 99, and particularly on the second page. So it's the last bullet under the heading "WSP Development from 2001 to 2005." I don't think this was covered in your earlier evidence. So the last bullet starts by saying that the DFO engage the province on WSP development to a limited extent, and then continues:

He recalls that DFO gave the province two advance briefings, but did not invite its direct involvement at that drafting stage.

So, first of all, those two sentences are accurate to your knowledge?

1 (WATER SPILL) 2 3 MR. LUNN: While you're taking care of that, Mr. 4 Prowse, I'm not sure where you are in the 5 document. 6 I'm sorry, it's the second page of -- just MR. PROWSE: 7 above the "Challenges of WSP Development", so just 8 above the bottom of the page. 9 MR. LUNN: On the witness summary? 10 MR. PROWSE: Yes. Exhibit 99. MR. LUNN: (Indiscernible - not at microphone). 11 12 DR. RIDDELL: Sorry, do you need me to wait, or can I 13 reply to your question, or...? 14 MR. LUNN: If the witness is able to do it without the 15 document in front of him, I'd... 16 MR. PROWSE: 17 Yes. So in your November 16th statement, I read 18 you a couple of statements. Are those accurate? 19 DR. RIDDELL: To my recollection, yes, they are. 20 All right. It then goes on to say that you will 21 say that: 22 23 In your view, the province did not need to be 24 directly involved with drafting the WSP. 25 26 Is that accurate? 27 DR. RIDDELL: In my opinion it was, yes, because of the 28 difference in the species, largely. The policy 29 explicitly states it does not address the 30 steelhead or cutthroat trout. 31 Right. And so with respect to Fraser River 32 sockeye, your view was that the province did not 33 need to be directly involved with respect to those 34 aspects of the WSP; is that correct? DR. RIDDELL: Well, Mr. Commissioner, the Wild Salmon 35 36 Policy is generic. It is not specific to Fraser 37 sockeye alone, and that level of discussion did 38 not occur in the writing and the development of 39 the policy. 40 And I'm trying to get at why not, from your point 41 of view. So why did you think that it wasn't 42 necessary to get the province involved with 43 respect to Fraser River sockeye, for example?

DR. RIDDELL: Well, it wasn't -- I'm sorry, Mr.

Commissioner, it was not that we didn't feel that

there was a need to involve the province, and we

certainly were not talking specifically about

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Fraser sockeye salmon when we're writing the general policy.

The important involvement of the province is in the implementation of the policy, particularly under Strategies 2 and 3. Many of the databases for habitat change, for example, are managed by the Province of British Columbia. There were talks amongst technical experts about what data was available with the province and whether they could be involved — if the policy was implemented, would they participate in the development of joint databases, for example, and there are memorandums of understanding between the federal government and provincial government on data management and data exchange.

So there were mechanisms to involve them in the implementation already. The comment I was making here really was in the sense of we were looking at a long-term policy for the federal responsibilities to protect the genetic diversity of the Pacific salmon.

- All right. And so the -- when it came -- and your statement goes on to say that the province's participation is needed in implementation, and you've just stated that with respect to Strategies 2 and 3, why you felt that, and you referred particularly to databases and some technical discussions about accessing that kind of information for those two strategies.
- DR. RIDDELL: Yes.
- You also refer to Strategy 4 and why, in your view, was the province -- did you see a need for the province -- for involvement in Strategy 4?
- DR. RIDDELL: Thank you for introducing that question, because I think that's really an important point. Strategy 4, looking at it in the broader sense is really about ecosystem-based management and developing harvesting plans within that context. Many of the elements of ecosystem-based management are outside the purview of the Department of Fisheries and Oceans. But we have do have the habitat issues and the *Fisheries Act* when many of them are reactionary or they seem to react after the effect.

Strategy 4 is to provide opportunity for long-term planning, and it would include issues of water management and land development and

 utilization there for flood control and this sort of thing. Many of the things that pertain to water management and land development are under the responsibility of the provincial government, and that, and so would be impossible to really talk about long-term watershed conservation plans and particularly involving salmon, with involvement of the province and the municipal governments, First Nations and other community groups.

- Q But in terms of the drafting process up to the year 2005, in your view, the province and -- the province did not need to be involved in the drafting process. In your view, those responsibilities would be dealt with after 2005 in the implementation status; is that correct?
- DR. RIDDELL: Correct, in the implementation. But, as I did say, there were a couple of meetings and they were arranged at the Regional Director General level, sort of senior government/senior government. And then there would be briefings on the reason that we developed the policy in particular ways, and there was dialogue back and forth.

I don't really even recall any real requests from the provincial government to directly be involved in writing, and furthermore, they seldom participated in the multi-stakeholder consultations, and that, but the dialogue always was one of involvement during implementation.

- So, from your point of view, they weren't necessary in the drafting process of the Wild Salmon Policy itself?
- DR. RIDDELL: That's my opinion, yes.
- MR. PROWSE: Thank you. Those are my questions, Mr. Commissioner.
- MR. WALLACE: Thank you. Next on my list is the B.C. Salmon Farmers Association.
- MR. HOPKINS-UTTER: Good morning Mr. Commissioner, panel, Shane Hopkins-Utter, H-o-p-k-i-n-s-hyphen-U-t-t-e-r for the B.C. Salmon Farmers Association.

My co-counsel, Alan Blair, suggested that I start out with a joke as he does. Unfortunately I didn't write one in my notes, so you'll forgive me if I just proceed.

I wanted to -- I just wanted to start out by having a quick discussion as to some of the points

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that I hope to raise in my questions, so feel free to jump in. This is largely based on some of the evidence that you've already given yesterday and today. If I signal a particular person, if you have comments, please just let me know.

CROSS-EXAMINATION BY MR. HOPKINS-UTTER:

Q My first point, Dr. Irvine, is that the Wild Salmon Policy, as we've acknowledged, refers to the Aquaculture Policy Framework expressly and the mitigation of risks by citing considerations under the CEAA. Would you agree with that?

If you'd prefer to go directly to the page, I

can --

DR. IRVINE: If you could -- page 31?

Q Absolutely, absolutely.

MR. HOPKINS-UTTER: Mr. Lunn, this Wild Salmon Policy, Exhibit 8. This would be page --

MR. LUNN: Thirty-one.

MR. HOPKINS-UTTER: -- 31. That's the paper. Yeah, there we are.

DR. IRVINE: Yes, there's a section in the policy on each of aquaculture enhancement and, I believe, habitat development.

MR. HOPKINS-UTTER:

Q Okay.

DR. IRVINE: And fisheries management, I believe.

- Of course. And this is a general question to Dr. Irvine and Mr. Chamut. There was mention of interim guidelines, preliminary guidelines for setting of aquaculture operations that had existed at the time that the Wild Salmon Policy was in fact being developed, although I understand from the comments that those were -- were they not further developed? Have they actually been abandoned, or are they still generally there as guidance?
- DR. IRVINE: No, in 2002, we made some progress in the development of the implementation guidelines for various activities, including aquaculture. But after, I believe, 2003, there was no further development of them so they were incomplete at that stage.
- Thank you. And you'd generally agree the DFO is
 -- well, shall we say, committed to sustainable
 development as a sustainable Resources Management

Department?

- DR. IRVINE: Yes. I'm not really a spokesperson for DFO, but certainly for the Wild Salmon Policy, sustainable development is one of the important principles of the policy.
- Q And, Mr. Chamut, I believe you had made some comments on the Wild Salmon Policy acknowledging that while the conservation is a primary consideration, that decisions are not necessarily made without considering the sustainable use elements of social and economic considerations. Is that a true statement, or generally correct?
- MR. CHAMUT: Well, I'd like to kind of restate it.

 Of course.
- MR. CHAMUT: I think what I said in testimony yesterday, the obvious priority within the Wild Salmon Policy is conservation of genetic diversity of wild salmon. But there is a process by which decisions are made. They're not necessarily going to be based just on biological considerations, and there is a process by which social and economic considerations can be made when we're talking about plans to protect or rebuild or conserve a particular CU.

But I also went on to say that there's -there's a continuum of concern. If you're dealing
with a conservation unit that is at very low
abundance and it's in that so-called red zone that
was discussed this morning by Dr. Irvine, then the
primary considerations that will be made about
what to do with that CU will most often be
biological.

As you move up into greater degrees of abundance and the much less risk that -- or much less threats to the well-being of the conservation unit, then increasingly biological -- sorry, social and economic considerations will be an important part of whatever decision is taken. So there is this continuum.

The intent of the policy that biological factors are going to be the primary considerations when the stock is at risk, with the one exception which I talked about this morning: The exception of circumstance where there may be some sort of extenuating circumstances where it will make it extraordinarily difficult to be able to conserve a conservation unit, or if it's -- if efforts to

conserve it are going to fail or be excessively costly. That's then a matter that would be considered for a decision by the Minister after consultation in a full and open process that looked at the issue of the biological status, the costs and consequences of the decision.

So it would be done in an open and

transparent manner. But I think it's really important that when the stock or the conservation unit is at low levels, the policy clearly indicates that biological factors are going to be the primary consideration in decisions.

MR. HOPKINS-UTTER: Thank you. And, Mr. Lunn, if you can take us to page 16, middle left of the page. This is Principle 3 of the Wild Salmon Policy. If you could just enlarge the second paragraph under that?

So, Mr. Chamut, your comments then would fit in that -- fit into this particular principle that, in fact, conservation is the number one goal, but decisions cannot be -- I'm reading now:

Conservation decisions cannot be based solely on biological information.

So at that point, as you say, as we move up the scale away from red at that point, the sustainable development and sustainable use, then, becomes a greater consideration in the decision-making?

MR. CHAMUT: I think that's correct, yes.

Would you agree with me that the Wild Salmon Policy, as well as the Aquaculture Policy Framework generally recognized that pressures of human activity put on natural resources, including pressures on wild stocks for food purposes, those run counter to conservation in the strict sense of non-use?

 To rephrase it, then, would you agree that both of those policies, Wild Salmon Policy and the Aquaculture Policy Framework do in fact recognize human pressures on natural resources such as wild salmon?

MR. CHAMUT: I'm not absolutely sure that this will answer your question, but, I mean, clearly the Wild Salmon Policy is in place to provide policy guidance as to how the Department will approach the conservation and management of wild Pacific

salmon.

The Aquaculture Policy Framework, which I have not looked at since I had the good fortune to be retired five years, as I recall it talks about aquaculture as a sustainable human activity. It recognizes that there can be adverse consequences to habitat and to wild resources, and that it needs -- it needs to be managed properly so that things like siting of a farm does not adversely affect important habitat, or there's -- making sure that there's disease control.

So -- and a variety of other things that are recognized as potential threats to wild salmon. But the Aquaculture Policy Framework essentially assumes that aquaculture can be a sustainable and good industry provided that it operates in accord with requirements of SEA (phonetic) and the habitat policy of the Department of Fisheries and Oceans, and probably other bits of legislation too.

I'll be taking you through these in some detail in just a few minutes so, don't worry, I'll make sure that we cover those off in greater detail.

I will put to you, and maybe you can agree or disagree or just feel free to say that you don't remember. As I say, I'll be coming back to this, but you are familiar with the Aquaculture Policy Framework. Do you recall, to the best of your knowledge, the discussion around aquaculture being a sustainable -- a sustainable industry -- was primarily with respect to its food production, that -- and the --

- MR. WALLACE: Mr. Commissioner, I'm unsure how an investigation of the Aquaculture Policy Framework relates to the Wild Salmon Policy.
- MR. HOPKINS-UTTER: Mr. Commissioner, at this point maybe I should get directly into my examination of the documents and I will, in fact, develop this. I should say -- I should have prefaced the fact that all of this is to say what was the knowledge of the Department of Fisheries and Oceans? What were the policies in place? What were the guidelines? What was the regulatory framework that existed at the time that the Wild Salmon Policy was in fact being developed?

So the fact that the Aquaculture Policy Framework existed as of 2002 or 2003 would be

1 germane to the fact that it was referred to expressly in Wild Salmon Policy. 3 THE COMMISSIONER: It might be helpful if you got to your specific questions rather than just these 5 general questions that seem to be eliciting some 6 confusion. 7 MR. HOPKINS-UTTER: Absolutely. I apologize. 8 Mr. Lunn, if you could take us to the bottom 9 left of page 10. 10 The Wild Salmon Policy identifies a number of pressures on wild salmon such as habitat 11 12 pressures, including human use of land and water 13 for: 14 15 ...non-fishery uses, such as urban 16 development, forestry, agriculture, and other 17 industries. 18 19 And it notes: 20 21 Habitat pressures will continue to grow as 22 human populations increase and, with them, 23 demands for space, food, and livelihood. 24 25 I think we've gone onto the right part of the 26 page. If you could just focus on the right part 27 of the page, Mr. Lunn? 28 MR. SAUNDERS: I think page 10 in the -- isn't -- yeah. 29 MR. HOPKINS-UTTER: Oh, the electronic page. 30 apologize. 31 MR. LUNN: Oh, sorry, I thought you were referring to the electronic version. So we're on page 10 32 33 (indiscernible - not at microphone). 34 MR. HOPKINS-UTTER: Paper version page 3, electronic version, page 10. If you just focus generally on 35 36 the bottom of the page. 37 That's where we were before. MR. LUNN: 38 MR. HOPKINS-UTTER: Yes. Oh, sorry, the right bottom 39 paragraph there 40 41 Habitat pressures will continue to grow as 42 human populations increase and, with them, 43 demands for space, food and livelihood. 44

Furthermore, if you look at page 37, the

electronic page 37 in the middle of the page, this

is on "Enhancement of Wild Salmon Policy." Over-

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exploitation is actually only mentioned once in the Wild Salmon Policy in relation to the potential adverse effects on enhancement on wild salmon. Would you agree, then, that the Wild Salmon

Policy perhaps implicitly recognizes the risk of over-exploitation in terms of its goal for conserving wild stocks? Is that -- is that an unstated risk that the Wild Salmon Policy is --10

MR. CHAMUT: Well, I would -- I would have to answer by saying I hope not. I hope it's explicit. I mean, one of the challenges that the Department has in managing the fishery is setting appropriate regulations on harvest and making sure that harvest of the -- of the wild stock does not exceed its acceptable levels.

I would assume that the document is explicit about the need to properly regulate harvesting so as to meet escapement objectives or other targets that are set. I mean, that's -- clearly unregulated fishing can have very adverse effects on the wild stocks.

- And, Mr. Chamut, yesterday you mentioned the relationship between conservation and sustainable use, and this is something that has come up quite a lot.
- MR. HOPKINS-UTTER: Mr. Lunn, at page 15 in the blue bar on the left. The WSP specifically distinguishes between these two principles. reads:

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Conservation is the protection, maintenance, and rehabilitation of genetic diversity, species, and ecosystems to sustain biodiversity and the continuance of evolutionary and natural production processes.

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And noting:

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...the primacy of conservation overuse.

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It then reads:

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Sustainable Use is the use of biological resources in a way and at a rate that does not lead to their long term decline, thereby

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maintaining the potential for future generations to meet their needs and aspirations. As a resource management agency, DFO is committed to the sustainable use of wild salmon resources.

Now, at this point, I'll turn the question over to Dr. Irvine as this was noted in your Exhibit 96, the paper that we saw yesterday. The Principle 3, which I've already made mention to, that decisions can really be made on conservation without considering the sustainable aspects, do you have anything to add on that particular distinction between conservation and sustainable use that Mr. Chamut has not already elaborated on?

- DR. IRVINE: Well, not really, except that without conservation, you can't have sustainable use. So you need to conserve the resource so that you can use it in the future.
- MR. HOPKINS-UTTER: Mr. Lunn, at page 38, electronic page 38 of the Wild Salmon Policy, paragraph 2.

The Department's role, as the lead federal agency for aquaculture, is to manage aquaculture so that it is environmentally sustainable, socially responsible, and economically viable. In 2002 the Department released the Aquaculture Policy Framework (APF) 22 to guide the Department's actions with respect to aquaculture. The first principle of the APF directs the Department to support aquaculture development in a manner consistent with its commitments to ecosystem-based and integrated management, as set out in Departmental legislation, regulations and policies. This principle reflects the Department's mandate for the conservation of marine resources.

- Q Do I understand, then, that the Wild Salmon Policy actually recognizes the Aquaculture Policy Framework's first principle is conservation?
- MR. CHAMUT: I wonder if there is a way to rephrase that particular question. It's not -- it's not clear to me. I think that it probably needs some -- maybe some additional massaging because it's just, unfortunately, going right over my head,

which is probably not that difficult, but I'm sorry, I can't offer an answer at this point.

MR. WALLACE: Again, Mr. Commissioner, I see that there is a section in the Wild Salmon Policy where aquaculture is referred to and the reference is made to the Framework. But these questions seem to be going to the Department's recognition of matters under the Framework, rather than any development of the Wild Salmon Policy, and I -- we have limited time and we will be dealing with aquaculture in a discrete period dedicated to that. I'm not sure this is an effective use of time.

MR. HOPKINS-UTTER: Mr. Commissioner -- thank you, Mr. Wallace for that feedback. I would say, however, that this panel has already identified the relatively late addition of aquaculture to the Wild Salmon Policy. I believe that -- it's my understanding that it was added late or at the suggestion of feedback in the process of developing the Wild Salmon Policy.

Furthermore, the explicit reference to the Aquaculture Policy Framework and one of the guiding principles in the Aquaculture Policy Framework does in fact inform the development of the salmon policy as it pertains to aquaculture.

We have this entire page dedicated to what the aquaculture position is of the Department, including the Aquaculture Policy Framework as well as a separate blue bar a few pages later, specifically referring to aquaculture. So the reason that we're — the reason that I'm asking these questions are in fact to get to the point where the Aquaculture Policy Framework, if you'll permit me to bring that up in this hearing, actually shows that conservation is one of the primary considerations of the Aquaculture Policy Framework, and this is in fact consistent with the development of the Wild Salmon Policy, which is why it's explicitly referred to in this document.

THE COMMISSIONER: I think now I'm in Mr. Chamut's camp. I'm not sure I understand what you just said. But to the extent that the Aquaculture Framework that you're discussing goes to the issue of the process for the evolution of the Wild Salmon Policy, I think any questions you have in that arena would be very appropriate. It's not

clear to me whether you're asking about the Aquaculture Policy Framework, or you're asking about how that framework, during the course of the evolution of the policy, found its way into the policy and what the considerations were for doing that.

So if you could be bit more clear and specific in your questions relating to the process, I think that would be helpful.

MR. HOPKINS-UTTER: Thank you.

MR. CHAMUT: I hope I'm not out of order here, but I would like to respond to something that you did discuss in your last -- in your most recent comments that I think does need clarification.

You'd indicated that the page that you'd referred to on aquaculture which, in my document, as the hard copy, is page 31.

MR. HOPKINS-UTTER:

O Yes.

MR. CHAMUT: It's a stand-alone discussion about aquaculture, and you made the comment that it was a late addition to the policy. That's what I really wanted to address. It is not a late addition to the policy. It's not something that came in at the last minute.

If you go back to the very first drafts of the Wild Salmon Policy in 2000 and 2002, there was always discussion about aquaculture. In the document that was released for public consultation in December of 2004, there was — there was discussion of aquaculture in that document at that time, not in a prescriptive way, but along the lines of what you see on that page dealing with aquaculture and the policy that was finally adopted.

There was a lot of discussion about aquaculture and how to deal with it during the genesis of the policy during 2004. The Department did have a lot of comments about aquaculture, and we tried to reflect in the policy some of the issues associated with aquaculture, some of the concerns, and the way that they're being addressed in a general way. That's where the reference to the aboriginal — the Aquaculture Policy Framework comes in, because it does make reference to adherence to SEA guidelines and habitat guidelines, stuff of that nature.

But it really, as I said yesterday, the drafting team concluded in probably early 2003 or in 2003 in the spring, that there would not be any prescriptive treatment of aquaculture along the lines of what had initially been anticipated. The rationale for that was that aquaculture was a human activity that could affect habitat along with a whole host of others that I mentioned yesterday like mining and forestry and road building and municipal development and fishing and all the rest of those things.

But aquaculture is here, it's a flag that this is something that the Department is aware of, that there are issues associated with it, but they're being addressed in certain ways. And that's all that this is. I'd be really rocked — and I don't think any one of the witnesses here would be in a position to speak either knowledgeably or in an informed way about the Aquaculture Policy Framework.

In my case, I remember it, but I would certainly not want to ask or answer detailed questions on it because it's really become a fond memory rather than anything that sort of stuck with me.

- Q Thank you. Judging from your comment, then, would you say that those two policies were generally in development simultaneously, and due to the delays in finalizing the Wild Salmon Policy, it's likely that the Aquaculture Policy Framework just happened to be the one that was finalized earlier? Would that be a fair statement? I see Dr. Riddell shaking his head.
- MR. CHAMUT: None of the other panellists I think would have been involved in the Aquaculture Policy Framework. But I was peripherally involved 'cause at the time that it was it was being considered, I was the Assistant Deputy Minister in Ottawa for Fisheries Management, so I was involved in some of the work, or at least looking at some of the earliest draft.

So the answer to your question is that the APF and the Wild Salmon Policy did overlap in terms of time. Wild Salmon Policy starting around 2000. I don't know when the APF started. Wild Salmon Policy concluded in 2005, and I would guess by the fact that we're referring to it here, it

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46 47 was concluded in, what, 2003? That's just a guess. It might be 2004.

So there was overlap, but I don't think that there was an awful lot of detailed consideration of them in any sort of parallel sense.

I'll move on, in that case, sir.

MR. HOPKINS-UTTER: Just at page 22 of the Wild Salmon Policy, then, Mr. Lunn, third paragraph.

This is on the precautionary approach adopted by the Wild Salmon Policy. It expressly refers to the document, a framework for the application of precaution in science-based decision-making about risk - which I believe is our Exhibit number 51 as the guiding document on the precautionary approach and I'll quote here.

> It identifies important considerations for management, acknowledgment of uncertainty and information and future impacts on the need for decision-making in the absence of full information.

And that it:

...implies a reversal in the burden of proof and the need for longer term outlooks in conservation of resources.

You were talking about longer term, Dr. Riddell, and I was just wondering in the context of the Wild Salmon Policy, generally does this mean the re-evaluation and consultative mechanisms that are described in that framework for the application precaution?

DR. RIDDELL: I'm sorry, I'm not sure I understand the direct question. The precautionary approach was included because Canada had made stipulations to apply it in resource management, and we recognized that we did not have all the information required, and we've talked about different examples of that.

So what we're really talking about here is that the reversal of burden of proof, as you are saying, is that it should not always be on the Government of Canada to have the definitive proof to stop something, but that the developer, on the other hand, should have evidence that they can proceed with a sustainable program and that they

provide evidence that it won't have long-term harm to other natural resources, and that.

So it was included here because uncertainty

So it was included here because uncertainty is very real in all aspects of salmon management, and the precautionary principle is the natural way that people were developing how to control the impact of that uncertainty.

- Q So then the long-term monitoring and involvement of stakeholders in performing research, is that more or less what the Wild Salmon Policy is getting at, the involvement of stakeholders in that particular type of resource -- research?
- DR. RIDDELL: Mr. Commissioner, the Wild Salmon Policy doesn't commit to anything like that, but that is certainly an example of the way that you can control, for long-term uncertainty, improved monitoring. There's actually a very important feedback, and that, that if you have very poor information, you are going to increase your level of uncertainty, and under risk management, then you're going to increasingly have effects on development because you're going to limit development even more, limit fishing, and that.

If you have very good data where you're doing long-term monitoring, then you can reduce your degree of uncertainty, and then under a risk management assessment, it would reduce the impact on users or developers.

MR. HOPKINS-UTTER: Just a few final questions, then, Mr. Commissioner.

Mr. Lunn, could you please take us to Exhibit 51, the "Framework for the Application Precaution in Science-Based Decision-Making about Risk", dated 2003 at page 9 under "Section 4.2", the second bullet. I'll refer this question specifically to Dr. Irvine.

Q It says here at the second bullet:

While societal values and public willingness to accept risk are key in determining the level of protection, in all cases sound scientific evidence is a fundamental prerequisite to applying the precautionary approach.

Yesterday you were saying that societal values and public willingness to accept risk

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generally change quickly. Would you agree that this is one of the primary reasons why sound scientific information is needed?

DR. IRVINE: Yeah, I don't think I said that societal

values and opinions would change quickly, but they can in fact change.

So would you repeat the question? Sorry. Would the -- would the need for credible and -- credible scientific evidence basically be -- I'll see if I can reframe it.

 Does this document require sound scientific evidence to proceed with decisions because of the potential for changing societal values as a means of introducing some certainty in making decisions about risk?

DR. IRVINE: No. Strategy 1 deals with the scientific uncertainty as to the -- uncertainty as to sort of the -- our understanding of the status of a particular conservation unit as well as to uncertainty associated with the management implications, or different management implications.

The social and societal values, public willingness to accept risk, that's all about the identification of target reference points and limit reference points. And so it's -- you're getting into Strategy 4 which is where that information is incorporated.

Would you agree --

 MR. HOPKINS-UTTER: If we turn to page 12, Mr. Lunn, the last two bullets.

O Generally does this document -- we'll read here:

Domestic or international obligations may require some precautionary measures be deemed explicitly provisional and subject to reevaluation; they may include obligations requiring mechanisms for ongoing monitoring reporting.

The last bullet:

Regardless of whether there is a formal obligation, follow-up scientific activity (e.g. further research and monitoring) should be promoted as it can help reduce uncertainty and allow improved decisions as the science

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evolves

46 MR. I

Would you generally agree at this point that this document does not in fact require DFO to put a stop to any risky activity, but rather it informs all decisions regarding conservation through this particular mechanism of monitoring, of making adjustments and of further monitoring?

DR. IRVINE: Well, I don't see any disagreement between the -- what's covered in these two bullets and the Wild Salmon Policy. I mean, the first one just seems to be saying that, you know, decisions are sometimes provisional and we certainly need to collect new data, new information and re-evaluate things.

...follow-up scientific activity should be promoted as it helps to reduce uncertainty and allows improve decision-making.

So I don't see any disagreement between what's in these two bullets and the intent of the policy.

- Thank you. And one final question.
- MR. HOPKINS-UTTER: Mr. Lunn, document 18, if you please. Sorry, BCSFA document 18, our document 18, yes.
- Q Mr. Saunders, I'm going to ask if you recognize this document.
- MR. SAUNDERS: Yes, I do.
- MR. HOPKINS-UTTER: And if Mr. Lunn can scroll to the bottom of the page.
- Q Is that your name at the bottom left-hand corner? MR. SAUNDERS: Yes, it is.
- Q Can you briefly describe what this document is?
 MR. SAUNDERS: This is a strategic assessment, and it's a requirement of any policy that, any national policy, that it go through assessment, and this was -- this was that for the Wild Salmon Policy.
- MR. HOPKINS-UTTER: Mr. Commissioner, I'd like to have this marked as an exhibit, if you please.

 THE REGISTRAR: Exhibit 111.

EXHIBIT 111: DFO Strategic Environmental Assessment

MR. HOPKINS-UTTER: Mr. Lunn, if you could please take us to page 3 of this document.

Q At the very top, under "Description and Rationale", there's a list of numbers there. At the bottom of that paragraph under "Description and Rationale", the last sentence reads:

DFO specified three targeted activities in support of this goal.

Being the goal of sustainable programs.

And the WSP addresses all three.

Mr. Saunders, can you read number (1) from that
 list for me, please?
MR. SAUNDERS:

Developing policies, frameworks, regulations and responses to ensure the integration and sustainability of fisheries and aquaculture.

- Thank you. So would you agree at this point that the Wild Salmon Policy, as well as the Aquaculture Policy Framework -- I'm sorry, I'm going to catch myself -- the Wild Salmon Policy and the policies of the DFO regarding aquaculture were generally geared towards that type of sustainability? The "developing policies, frameworks, regulations" would have likely included the Aquaculture Policy Framework? Is that possible?
- MR. SAUNDERS: I'm trying to understand what is being communicated in the three bullets. If I've got it correct that they're -- and I haven't looked at this document for some time. Those are goals for the Department in the Pacific Region in general, not just related to the Wild Salmon Policy, so the linkage of aquaculture and fisheries there, I'm -- I'm not sure that they're being linked necessarily.
- Q Okay.

 MR. SAUNDERS: Yeah. The strategic SD Action Plan isn't -- while we're required to produce this to SEA, the SD Action Plan is much broader. Every government department has to provide how it's to respond to -- develop an action plan, so these were bullets that are -- this isn't specifically about the implementation of the Wild Salmon Policy, the three goals that you're seeing there.

Okay. But would you agree that the WSP, in fact, addressed these bullets, the first one being the integration and sustainability and fisheries -- of fisheries and aquaculture?

That's okay. I'll retract the question. I would like to clarify just one of the last points

That's okay. I'll retract the question. I would like to clarify just one of the last points that you raised. You weren't sure about why fisheries and aquaculture was in fact put together in this particular document.

- MR. HOPKINS-UTTER: Mr. Lunn, if you could look at BCSFA document 1. This is a document dated 2005, DFO 2005-2010, "Strategic Plan: Our Waters, Our Future," final draft.
- Q Does anyone on the panel recognize this document? MR. SAUNDERS: Yes.
- MR. HOPKINS-UTTER: And, Mr. Lunn, at page 8, second-to-last bullet.
- MR. LUNN: That's page 8.

 MR. HOPKINS-UTTER: Electronic 8? I'm sorry, did I say bullet? I mean paragraph [as read].

Beginning to reflect the revised departmental outcomes, DFO implemented a number of organizational changes. The Department merged its fisheries and aquaculture programs to strengthen the linkages between the management of wild and farmed fisheries.

- Q Does that -- Mr. Saunders, does that bring back to your recollection as to why those fisheries and aquaculture were merged in your strategic assessment?
- MR. SAUNDERS: No, I wouldn't have made that connection. I mean, what we were doing at the time is we were demonstrating in that document that there was no harm -- you know, it's a risk management -- with the policy, and typically that goes for other things, not just policies, capital items. So if I'm going to build a building, I need to get that approval and I've got to demonstrate that I've managed the -- sort of the environmental impacts.

So really, that -- my understanding of the intent was that was to show that there was no -- there was no damage to -- environmental damage to result -- or that we had planned for as a result of the policy.

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Cross-exam by Ms. Glowacki (AQUA)

So I don't recall explicitly considering the connection between aquaculture and the policy in the development of that document.

MR. HOPKINS-UTTER: Very last question, then. Mr. Lunn, page 13, last paragraph. This is a paragraph on sustainable development. The document says [as read]:

The Government of Canada --

This is the second sentence, sorry.

The Government of Canada states that development is essential to satisfy human needs and improve the quality of human life, but must be based on the efficient and environmentally responsible use of all society's scarce resources: natural, human and economic.

Would anyone on the panel care to care to agree or disagree with that statement generally?

- MR. TIMBERG: Mr. Commissioner, I'm just questioning whether it's fair to ask them to agree or disagree with a document that speaks for itself. I'm not sure of the benefit of asking the four panel members this question.
- MR. HOPKINS-UTTER: I'll retract the question. Can I have this marked as an exhibit, if you please? THE REGISTRAR: Exhibit number 112.

EXHIBIT 112: Document entitled "2005-2010 Strategic Plan, Our Waters, Our Future"

- MR. HOPKINS-UTTER: Thank you, Mr. Commissioner, those are my questions.
- MR. WALLACE: Thank you. The next on the list, I have the Aquaculture Coalition.
- MS. GLOWACKI: Lisa Glowacki for the Aquaculture Coalition. I, as well, want to canvass the development of the position that the Department ultimately took in the Wild Salmon Policy related to aquaculture. I gather from the evidence, both in your witness statements and what you've given on the panel, that there was considerable discussion and an evolution over time of how aquaculture would be dealt with.

I have a few questions just relating to how you arrived at the final position.

CROSS-EXAMINATION BY MS. GLOWACKI:

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Q Dr. Riddell, I think the first question would best be addressed to you. It's about the first draft of the Wild Salmon Policy which is Exhibit 78, if that could be called up, please.

Before we get into this, as a general statement, when I look at the documents about the shift in thinking in the Department over time about aquaculture goes from specifically identifying aquaculture as one of the few factors that impacts wild salmon, and the conservation of wild salmon, and thus, it being something that should be subject to the application of the policy. That's the starting point.

By the time we get to the final version, which is Exhibit 8, aquaculture is not identified as a factor -- not highlighted as a factor and specifically affects the conservation of wild salmon, but is characterized as one of many human activities that could potentially affect wild salmon, and is no longer subject, specifically to the application of the policy, but there's a commitment to regulate it in keeping with the policy.

Is that a fair statement from your perspective, Dr. Riddell?

DR. RIDDELL: Well, Mr. Commissioner, I think that the answer is sort of a yes and no. I agree your description of the change from 2000 to 2005, where, in 2000 we started with, I think, four specific impacts, and yesterday you spent a significant amount of time talking about operational guidelines that would have been written about those particular four.

As we worked internally, and as we talked with many groups external, it became very clear that it's dangerous to identify a few groups or a few impacts, that there are many potential human developments and impacts that can affect wild salmon.

Wild Salmon Policy is an overriding management framework that is equally addressed to all impacts. So the only point I would disagree

A Right.

with you on is that the development in aquaculture on our west coast is absolutely included under the Wild Salmon Policy. It is only, if you want, relegated to the box-type presentation. I point out that that's equivalent to one of government's major programs in the salmon enhancement. So it's not to belittle our concern in any sense. But it's to put it in the perspective that it's really not just a matter of three or four major impacts that the policy pertains to. The policy pertains to all human activities that can affect wild salmon conservation.

All right. Okay. I shouldn't -- I'm not certain that I was suggesting it was belittling, but that it be -- no longer became a focus. You were saying there was the four factors at the beginning. Perhaps we'll just go to this first draft, look at those factors, and then we can better see where we go from there.

So could we please go to page 11? And, Dr. Riddell, you spoke to this document yesterday so I'm proceeding on the basis that you're familiar with it.

DR. RIDDELL: Yes, I'm sure we all are.

Yeah, okay. So the heading there, "Factors Affecting the Conservation of Wild Salmon." In the introductory paragraphs, it says [as read]:

The productivity and long-term viability of wild Pacific salmon in Canada are affected by many factors.

It continues on and says:

Some are under human control and others not.

I don't want to spend much time on here, but if can just flip through, we'll see the different factors. So there's environmental uncertainty, habitat -- habitat, just to pause for a second, habitat becomes one of the subject that will be -- there was planned to be an operational guideline, correct, Dr. Irvine?

- DR. RIDDELL: There was a plan to have an operational guideline. It became a major strategy --
- DR. RIDDELL: -- in a sense, so there was --

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1 Okay. 2 DR. RIDDELL: -- substantial concern about the 3 inability of the Department to protect habitat 4 over a long period of time and from many 5 pressures. It became heightened in the final 6 policy. 7 Right. So it was originally an operational 8 guideline and, as stated in the final version, as 9 a major strategy. Okay. 10 The next page, please? So the next factor 11 that's identified is fisheries, and again, there 12 was going to be an operational guideline for that, 13 and that's clearly stated in the Wild Salmon 14 Policy as a major focus, correct? 15 The next page, please? Here is salmon 16 cultivation, and within here in that first 17 paragraph, you'll see there's both salmon 18 enhancement and salmon aquaculture. The risks 19 identified with both of those, and the effect on 20 wild salmon are discussed on this page and the 21 following page. If you scroll down a bit more, 22 you'll see there's two paragraphs there. 23 Now, both salmon enhancement and aquaculture 24 were going to be subject to operational guidelines 25 as well, right? 26 DR. RIDDELL: Yes. 27 Yes, okay. And the operational guidelines were 2.8 intended to ensure that each of those major 29 factors that could affect wild salmon were managed 30 in a way that was in keeping with the goals of the 31 Wild Salmon Policy, and I believe, Dr. Irvine, you 32 would agree to that, given your testimony 33 vesterday? 34 DR. IRVINE: Yes, that's true. 35 THE COMMISSIONER: Counsel, I note the time. 36 this be a convenient place to adjourn? 37 MS. GLOWACKI: Sure. 38 THE COMMISSIONER: Thank you. 39 THE REGISTRAR: The hearing is now adjourned until 2:00 40 p.m. 41 42 (PROCEEDINGS ADJOURNED FOR NOON RECESS) 43 (PROCEEDINGS RECONVENED) 44 45 THE REGISTRAR: Order. The hearing is now resumed. 46 MR. WALLACE: Good afternoon, Mr. Commissioner. If I 47 might just interrupt for a moment, a couple of

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housekeeping matters. As discussed this morning with participants before we commenced the hearing, I've asked people to be a bit flexible with time, so I hope that people won't be inconvenienced if we sit beyond the four o'clock this afternoon.

The other matter I'd like to deal with is Exhibit 99 which was incorrectly marked yesterday and the summary of anticipated evidence of Dr. Riddell in another capacity was marked as opposed to the one relating to his evidence and which we addressed yesterday. So I think everybody was on the same page. It was just that the exhibit is incorrectly marked, so just for the record, Exhibit 99 is the summary of anticipated evidence of Dr. Brian Riddell with the date 16 November 2010. Thank you.

MS. GLOWACKI: Lisa Glowacki for the Aquaculture Coalition.

CROSS-EXAMINATION BY MS. GLOWACKI, continuing:

- Q Mr. Chamut, yesterday you were discussing the broader decision to take -- to remove the operational guidelines as a part of the policy based on a decision that prescription wasn't really -- wasn't the right way to go for the policy, that it would be a broader framework of principles. But I wanted to just confirm with you that the decision to not go ahead with the aquaculture operational guideline was on a different basis perhaps. It happened before the other operational guidelines were done away with and perhaps for a different reason; is that your understanding?
- MR. CHAMUT: No, it's not. To be honest, I don't recall that there was a sequence of decisions. When I came out to the region in 2004, just at the beginning, I spent the first amount of my time just getting acquainted with some of the literature and talking to some of the staff around the Pacific Region and the decision that was taken to -- not to go with operational guidelines -- I'll try to move over. That decision was one that was taken sometime in the Spring after I had had a chance to get together and work with the group for a little bit, but I simply can't recall exactly when that decision was taken.

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And similarly, the same applies with aquaculture. It wasn't as if we decided to do away with operational guidelines and then, quote, do away with aquaculture. I think there was — you know, there was a decision that was taken that it would be unproductive to try and develop these sorts of decision rules and in my opinion, as I said repeatedly yesterday, quite inappropriate and I think the approach that was taken with the policy is the right one.

With respect to aquaculture, the issue of not having guidelines on aquaculture was really a matter of saying okay, what is the logic of including something specifically on aquaculture which, as I said yesterday and I think Dr. Riddell repeated today, it's one of many activities, human activities, that can adversely affect wild salmon. And so just from a logic point of view, it seemed to us as a group that it made -- it made sense to -- not to have anything prescriptive about aquaculture but, as I say, I don't remember that there was a -- any sort of a sequencing. I think they all kind of, at least in my recollection, they all kind of come together. But the key thing for me on the aquaculture was the logic of why would you single it out and not pay any attention to things like mining or forestry or road development or culverts and municipal development and a host of a hundred other things that could equally have some consequence for habitat or for wild salmon.

- Dr. Irvine, do you recall that the aquaculture operational guideline was the first to be done away with?
- DR. IRVINE: No. My recollection is the same as Pat Chamut's. There were proposed operational guidelines for various activities in the 2002 draft and subsequent to that the decision was made, as Pat Chamut has indicated, to exclude the operational guidelines. But aquaculture was not considered out of sequence. It was really whether or not to have operational guidelines, not specifically -- so aquaculture was not treated any differently than any of the other activities.
- Q I don't want to belabour this point, but could we have document number 5, please?
- MR. LUNN: From the aquaculture list?

- MS. GLOWACKI: From my aquaculture list please, yeah.
 And could we go to page 18?
 - Q So, you will see on the right first this is setting out broadly the policy framework. I should say it's a Wild Salmon Policy Conservation and Management of Wild Pacific Salmon BCI. I don't know what BCI refers to, but are any of you familiar with this document?
 - MR. SAUNDERS: I'm familiar with it, yes.
 - Q Okay.

- MR. SAUNDERS: I recognize the tacky stripe in the middle there.
- Q Okay. If we could go to page 18 then. So this is November 5, 2003 and my only point here is on the right side of the page where there was once four operational guidelines, there's now three, and aquaculture is no longer on the list. So to me, it seems that at some point before that aquaculture was dropped and before there was a larger policy decision not to have a prescriptive approach. Would you agree?
- MR. SAUNDERS: I don't have a recollection of -- I similarly recall things as guidelines in general. Obviously there would have been a process there. The BCI that you see on there refers to B.C. Interior, so this would have been a deck for perhaps a meeting with B.C. Interior staff, I think. So it would have been in the middle of process moving forward, but I don't recall -- sorry?
- DR. IRVINE: I might just make one comment on that, if I might. We quite often use the term "cultivation", which included both enhancement and aquaculture. I'm not sure in this case, but I wonder whether somebody used the word "enhancement" instead of "cultivation". But I -- I can't recall.
- Q Okay. In past versions of the list, there were enhancement and aquaculture separately.
- MS. GLOWACKI: Could we have this document marked as an exhibit, please?
- THE REGISTRAR: Exhibit number 113.

EXHIBIT 113: Wild Salmon Policy, Conservation and Management of Wild Pacific Salmon BCI, November 5, 2003 - Draft - For Discussion Purposes Only

MS. GLOWACKI:

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- Dr. Riddell and Mr. Chamut, you both emphasize that the thinking was at some point, I think, in 2003 or 2004 that there's no reason -- or -- and I think Mr. -- or Dr. Riddell, your words were it would be dangerous to single out aquaculture as an activity and you've both likened it to other activities such as forestry and municipal planning, et cetera, that can affect wild fisheries, but is there not something different about aquaculture? Does it not have a sort of qualitatively different relationship to wild salmon when you have 500,000-plus fish in several hectares on a migration route for several years and they're sharing habitat and food? I'm just trying to understand the thinking of it as just another activity. I'm curious.
- DR. RIDDELL: Well, I think that it was obviously in a public consultation process there's two sides to most of these questions and many people felt that the spatial signature of the farms was fairly small and you'll recall at the time that this was being developed that a lot of the debate was really just picking up momentum and I think most people did feel that there was no reason to single out aquaculture as a major threat to wild salmon that deserved its own principle or anything else. It was seen as another utilization of the environment that had risk to wild salmon and it needed to be managed under its own appropriate sort of set of quidelines and so on, but that it was no different than the extent of forest impacts on salmon throughout British Columbia in a much, much larger scale and much longer time scales for recovery and so on. Pollutants, we didn't identify contaminants or pollutants and that they have long-lasting impacts and have been in the environment for many, many years. So not to say that people are not concerned about aquaculture in any sense, but you can certainly see that arguments could be made that aquaculture is just another one of the long list of impacts that threaten wild salmon in the future possibly.
- Q Okay. Was there a decision at some point to remove aquaculture entirely or it was always the intention to have it in there in some way over the course of the discussions or the debate, I think

some of you have called it? 1 2 DR. RIDDELL: Well, I'm -- Mr. Commissioner, I can 3 address it. I don't recall there was ever any 4 discussion of removing it. It was putting it in 5 more of a perspective, I think, is maybe the way 6 to look at it. And it was always part of the 7 drafting and I think all the previous documents. 8 It was identified in the December 2004 and it 9 continued through to the final document. MS. GLOWACKI: Okay. May I have document number 8 on 10 11 the Aquaculture Coalition's list, please? 12 THE REGISTRAR: Exhibit number 114. We haven't identified this. 13 MS. GLOWACKI: 14 THE REGISTRAR: Oh, I'm sorry. 15 MS. GLOWACKI: Yes. Sorry. THE REGISTRAR: I'm sorry. I thought you asked for... 16 17 MS. GLOWACKI: 18 Mr. Chamut, do you recognize this email as one 19 written by you? 20 Yes, I do. MR. CHAMUT: 21 And it is dated April 7th, 2004 and addressed to 22 Susan Farlinger? MR. CHAMUT: Yes, that's correct. 23 I'd like to go through the text of this and 24 Okay. 25 I think it adds to -- I'm just trying to get at 26 the development and how we arrived at what the WSP 27 currently looks like for aquaculture. So you 28 start: 29 30 In previous discussion about the content of a 31 policy on wild salmon we have discussed how 32 to handle aquaculture. I have argued that we 33 should not highlight the aquaculture industry as a key "threat" to wild salmon that deserves special attention, and have 34 35 36 generally opposed any specific discussion of 37 aquaculture. I recently attended the annual meeting of the BC Aboriginal Fisheries 38 39 Commission, and my views on how to handle 40 aquaculture in the WSP context have been 41 "shaped" by the experience. It has become 42 clearer that we should not just ignore 43 aquaculture, but need to address the very

visceral opposition to it by many First

And you go on:

Nations.

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I intend to find a place to include a brief discussion on aquaculture by describing the existing policy (ie that aquaculture is a sustainable industry that if properly sited and regulated will not have adverse effects...)

So I'm not sure if you have any comments on it. To me that looks like you, at least, thought that you shouldn't discuss aquaculture at all, but then changed your mind in light of the First Nations comments.

MR. CHAMUT: Well, I don't think you can necessarily infer that I -- that I didn't want to see the word "aquaculture" appear in the policy. I mean, if you go back, you'll see that in fact it did occur. I was very much opposed to having aquaculture flagged as we discussed because it's really -it's one of many potential threats to wild salmon. I don't think you can read into this -- I mean, the difficulty in these emails are oftentimes drafted very quickly and, you know, in looking at them in hindsight you can maybe draw some inferences that I don't think are necessarily correct. I didn't mean to say that we would never discuss aquaculture, but I did intend to say it's been my position that we would not provide any particular emphasis on aquaculture as a key threat.

The meeting that was referenced here was one that I attended in I think it was North Vancouver and it was the annual B.C. Aboriginal Fisheries Commission, and I was quite taken by the amount of animosity that was expressed by First Nation representatives to aquaculture and I though based on that that we needed to have some additional focus on aquaculture, just essentially discussing aquaculture and how the department views aquaculture and how it, in fact, regulates aquaculture. I didn't want it to be something that was ignored. I wanted to be able to say here's the issue and here's how the department views it and here, in fact, is how it's handling it.

So, I mean, as I say, it was a fairly quick email and one that intended -- I was intending to try and get some additional information so that we

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could, in fact, provide some sort of a brief discussion about aquaculture from the context of departmental policy that was emerging and the regulation of that sector by the department, just to provide some reference to that to deal with some of the concerns being expressed by First Nations.

- Would you agree with me that this April 2004 was the beginning of, I guess, a drafting process dedicated to the aquaculture section? Do you recall that?
- MR. CHAMUT: It was -- once it was flagged, I did get some -- I believe I got some information from Sue Farlinger which I used to draft some of the statements that appear -- actually appeared in the 2004 December version of the policy and I think some of it survived into the final version. And it's part of that so-called boxed item that I think it appeared on page 31 of the final version of this -- of the policy. So it discussed the general approach. It referred to the aboriginal -- aquaculture policy framework and it talked about CEA and departmental regulations and siting reviews and the like.
- Q Thanks. What was Sue Farlinger's position at this time, do you recall?
- MR. CHAMUT: I believe at the time she was the director of a group, was it called Habitat and Aquaculture or -- Oceans and Habitat Management, and I believe that part of her responsibility included the aquaculture file, but I -- I could be wrong on that recollection, but that was presumably, I mean, I'm reasonably sure that was why I wrote to her.
- Q Okay. Now, I just wanted to go to the second-last full line:

Finally, you owe me one for representing the interests of the aquaculture sector in your regrettable absence from the BCAFC meeting. I can assure you that is a debt not easily repaid!

I gather they gave you a hard time but do you recall what it meant to represent the interests of the aquaculture sector at that meeting?

MR. CHAMUT: It meant specifically that as a -- I was

the senior departmental representative at that meeting. There was a lot of concerns and criticisms that were directed at the aquaculture industry and indeed at the department. I was probably about the only one there that was -- that was in any way familiar with what was going on in -- with respect to the aquaculture policy framework and so I simply explained what -- how the aquaculture was regulated and tried to provide some response to First Nations that were making a number of claims about aquaculture and how it was adversely affecting them. I didn't in any way, if you're suggesting that I defended the aquaculture industry by touting its value and economic contribution, I simply was there as a departmental representative explaining how aquaculture is managed and regulated and responding to some of their specific concerns that were being expressed and that's all that that means.

- Q And their concerns were that aquaculture was a threat to the wild salmon, or...?
- MR. CHAMUT: No, actually, most of it as I recall, and I -- again, this goes back five years, but I recall there being a number of concerns about contaminated shellfish beds, which is of particular importance to many First Nations because of the importance of shellfish for their own food needs. There were concerns about habitat degradation in the area of farms and I wouldn't be surprised that there were concerns about interactions with salmon, but that -- I don't recall anything particularly focused on salmon. The one memory that I do have is the large amount of concern that they expressed about shellfish beds. That, to me, is the one that I do recall. But --
 - Q Mm-hmm.

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- MR. CHAMUT: -- if you check the minutes of the meeting you may -- I mean, you'll find probably there's a broad range of concerns but that's the one that particularly stuck with me six years later.
- Q Okay. I think I took from the fact that you were affected enough by their visceral reaction to aquaculture in the context that you would need to address it in the WSP, that there would be some concerns regarding its effect on wild salmon, but...

MR. CHAMUT: Well, I knew that First Nations would be looking for something like -- like at least a recognition of aquaculture and I felt it would be very prudent in the policy to include some of the statements that we did.

MS. GLOWACKI: Okay. Thank you. Could you put -- oh, can we mark that as an exhibit first, please?

EXHIBIT 114: Email from Pat Chamut to Susan Farlinger dated April 7, 2004 Subject: Sustainable Aquaculture

- MS. GLOWACKI: Mr. Lunn, could you put up document number 26 from the aquaculture list, please?
- Q Mr. Chamut, again this is an email from you directed to Susan Farlinger and it's dated April 20th, 2004; can you identify that as your email?
- MR. CHAMUT: Yes, that's mine.

THE REGISTRAR: Exhibit 114.

- I don't want to spend very much time here, but I just want, if you could agree with me that this is the first draft of what would become the aquaculture section in the WSP. I can read through it if you like, but --
- MR. CHAMUT: Oh, don't -- please don't do that. Q Okay.
- MR. CHAMUT: No, I -- I drafted something based on some information that I had received, I think, from Sue, and what I was doing was trying to put something together that would be included in the Wild Salmon Policy and it was -- obviously it went through a number of iterations but something of that nature did appear in the policy that was released in December of 2004.
- Q Okay. Thanks. And so you agree this is the first draft?
- MR. CHAMUT: Yeah.
- Q Just the first sentence which is directed to Mark Saunders.

We have spoken about the need to have a reference to aquaculture development in the WSP and the general consensus seems to be that it be best be placed...

Et cetera, et cetera.

I have drafted something that I hope will be useful in deciding what we need to say about aquaculture and where to stick it.

From that I take it it's the first draft, right? Mr. Chamut? Mr. Chamut, do you agree?

MR. CHAMUT: Oh, I'm sorry.

- Q That's okay.
- MR. CHAMUT: I thought it was directed at Mark Saunders.
- Q No, I'm sorry.
- MR. CHAMUT: Yeah, no that is the first draft, yeah.
- Okay. Thank you. And, Mr. Chamut, you refer to a drafting process that happened over -- there was many iterations over the course of a year. I just wanted to go to one or possibly two more moments in that drafting process. And I think I will direct my question to Dr. Riddell.

Earlier in your examination by Clifton Prowse for the province, you said that -- I'm not putting words in your mouth but this is generally that in the drafting of the policy, the province wasn't involved --

MS. GLOWACKI: Pardon me. I've just -- can we mark that last email as an exhibit, please?

THE REGISTRAR: One hundred and fifteen.

MS. GLOWACKI: Thank you.

EXHIBIT 115: Email from Pat Chamut to Mark Saunders and Susan Farlinger dated April 20, 2004, Subject: Aquaculture Development

MS. GLOWACKI:

- Q Okay. Back to my question, that the province wasn't involved in the drafting, but I just wanted to be clear that at least in relation to aquaculture, the perspective of the province was taken into consideration; would you agree with that? Dr. Riddell?
- DR. RIDDELL: Well, Mr. Commissioner, I'm not sure I would because we were drafting it, as I explained earlier, really from a higher level, that we were looking at what is required to successfully sustain wild Pacific salmon in the future under all sort of human-induced pressures. And that -- definitely the province was at that time directly involved in the siting and the management and so

- on, but there was -- since we were really including aquaculture as we've discussed was one of the pressures, we didn't get into a great deal of the detail of the management of aquaculture as one use of the natural environment.
- Q Do you or any of the panel members recall the province's position about the treatment of aquaculture being to minimize the treatment?
- DR. RIDDELL: Just for clarification, do you mean minimize the treatment in the Wild Salmon Policy?

 O In the Wild Salmon Policy, yes.
- DR. RIDDELL: No, I have no personal recollection of them ever seeking a -- I wasn't part of such a discussion if it ever occurred.
- MS. GLOWACKI: Mr. Lunn, could you put document number 16 from my list up, please?
- These are meeting notes from the Pacific Fisheries and Aquaculture Committee working group meeting of March 11th, 2005. I put these up recognizing that none of the panel members were in attendance here, but I would just like to -- so I'm not going to ask you to -- well, first I should ask, are any of you familiar with these meeting minutes?

(NO AUDIBLE RESPONSE)

- MS. GLOWACKI: Okay. Could I go to point number 3, update on Wild Salmon Policy, please, including the decisions part. Thanks.
- Q You've seen the last bullet above "Decision". It says:
 - B.C. expressed concerns about stakeholder references to the B.C. Wild Steelhead Policy and the effects of aquaculture on wild salmon habitat and it felt that the metric used by the B.C. Auditor General would be more appropriate.

And then in the decision part it says:

DFO will request Wild Salmon Policy drafters provide a more balanced reference to habitat impacts, so it does not focus on just aquaculture.

And that's in relation to the Wild Salmon Policy.

So am I to understand that none of you were aware of that? MR. CHAMUT: I certainly don't recall getting any direction or advice from Murray Hobbs (phonetic) about how to deal with aquaculture. Nor Sue -- pardon me. MR. CHAMUT: I'm sorry? Sue Farlinger was also at this meeting, so I'm just wondering if she may have communicated that? MR. CHAMUT: I don't specifically recall. But I would make one comment. This -- this was dated, you said, May -- March --UNIDENTIFIED VOICE: 7th, 2005. MR. CHAMUT: 2005? MS. GLOWACKI: March 11th, yes. MR. CHAMUT: Okay. I just want to be clear. It's --it would not be -- it was not a surprise, or at least not -- it's not something we were unaware of that B.C. was obviously interested in aquaculture and what the Wild Salmon Policy might say or do

that B.C. was obviously interested in aquaculture and what the Wild Salmon Policy might say or do about aquaculture, because elsewhere I recall having in the lead-up to the -- well, actually in the lead-up to the release of the Wild Salmon Policy that was out on December 17th, 2004 there were meetings that were held with various groups to brief them on the Wild Salmon Policy and I met with representatives of B.C. before the December 17th release and went through the Wild Salmon Policy with them and at that point they did take a look at a couple of particular issues. The representatives were mostly concerned about aquaculture, as I recall, and steelhead. And they, I think, were generally satisfied with the December 17th draft in terms of how both those issues were handled.

So it was not -- I mean, the fact that B.C. had an interest in aquaculture was not a big surprise, and this reference here is not the first time that that issue would have been -- would have been raised.

MS. GLOWACKI: Thank you. May I have that document marked as an exhibit, Mr. Commissioner? It hasn't been identified specifically so I'm not sure how to proceed here. My alternative suggestion would be to mark it as an exhibit for identification and when Sue Farlinger is on the panel to have her

identify it.

MR. HOPKINS-UTTER: If I may, Mr. Commissioner, I would have to object to it being identified as an exhibit at this point and I believe it can be put to Sue Farlinger as the panellists have said they have no recollection of this and were not present at the meeting.

THE COMMISSIONER: Yes, thank you. I think it is appropriate to mark it for identification purposes. It'll be given the next letter.

THE REGISTRAR: P for the next exhibit.

THE COMMISSIONER: Thank you.

EXHIBIT P FOR IDENTIFICATION: Meeting notes from the Pacific Fisheries and Aquaculture Committee working group meeting of March 11th, 2005

- MS. GLOWACKI: Mr. Lunn, could you put document number 17 on the screen, please?
- Q So this is shortly after the meeting, it's March 21st, 2005. By me saying it's shortly after, I don't mean -- I don't suggest that it is a direct result of that meeting, but it's an email from Dr. Riddell to various people, including Sue Farlinger, Pat Chamut, Andrew Thompson, Mark Saunders.

Dr. Riddell, can you identify this email as written by you?

DR. RIDDELL: Yes, I can.

Q Okay. So I gather at this point when the email was written -- we're getting fairly close to the finalization of the aquaculture statement and the Wild Policy -- Wild Salmon Policy generally, but there's still some ongoing discussion about what to -- the wording, so here you say -- there's talk of a meeting and you say:

Unfortunate that Andy will be away but we will need to address in early April when Jim is back also. I think that our initial approach to aquaculture is the correct handling, but with some details added. I still believe that we do not want to profile (target) aquaculture as it is just another source of risk to the natural populations. I think what people may have wanted is...

And you list the three elements that you think should be in the Wild Salmon Policy, a statement that conservation is first; a regulatory framework; and an explanation of aquaculture with CU's.

And it's the next line that I just wanted to go to:

Any thing (sic) more would likely not be well received by the Province of aquaculture industry.

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how DFO drafted this statement. To me, when I read that, it suggests that it was in your mind. DR. RIDDELL: Well, I'm trying to recall if this was written after the first full consultation. Yes. Yes, so now between what you just pointed out previously and this, we would have had our first full multi-stakeholder consultation which was two days of very fulsome discussions and a day before with First Nations about the current draft and getting a sentiment back in terms of what the balance of the overall document was and whether we had the wording correctly stated. As I say, I have no recollection of ever being directed within the department about the weight that we were putting from the province on aquaculture, so this would reflect my personal statement at the time.

And so I guess here I just want to ask again

whether the position of the province influenced

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Now, saying that though, you should recognize that I returned to the government in April 2004 and because of the debate that was in the Broughton Archipelago at the time, I maintained responsibility for the effect of aquaculture on wild salmon within my division, which was Pacific salmon and freshwater habitats. The intention of doing that is to protect wild salmon against the perceived threats that people were talking about in terms related to open sea-pen aquaculture. Right? So there's not any surprise to me that we were aware of the sort of balance we were trying to deal with in accomplishing the completion of the policy and that. And as I say, we were trying to treat all parties fairly at this point in a national policy document.

Yesterday, Mr. Chamut, you discussed some

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outstanding concerns or ongoing concerns throughout the development of the Wild Salmon Policy and I believe you agreed that aquaculture was one concern that was expressed throughout the period of the development of the policy and it remained an outstanding concern when the salmon policy was passed or adopted rather; is that -would you agree with that summary?

MR. CHAMUT: Well, I don't think I can -- I don't think that it would be appropriate for me to agree fully because I'm -- you're implying that there was a large amount of internal dissatisfaction after the policy was concluded and I don't think that is the case. Aquaculture -- like, there's a number of issues in the Wild Salmon Policy that did bounce around, went back and forth through the course of the development of that policy. As you've highlighted, there were -- you know, there were differing considerations, there were different efforts to try and put together something that we felt would be an appropriate approach to aquaculture that would, you know, be consistent with what the department was doing and also would be consistent with what we were trying to do within the Wild Salmon Policy.

And so if you -- I would agree that we did go, you know, back and forth and around the issue in various ways to try and put together something that we felt was the most appropriate balanced and responsible statement that we could put in about aquaculture and that was probably crystallized, oh, probably more -- quite near the end of the whole development process, and resulted in the statements that are currently in the policy now. But I don't think anyone sort of at the end of it went away feeling that we'd -- that we'd somehow made a grievous error. I think everyone was generally satisfied that we'd done a good and reasonable approach to dealing with that issue. When you say everyone, you mean everyone in the

- department or...?
- I certainly would mean everyone in the MR. CHAMUT: I don't mean to imply that -- there department. may have been other -- in fact, there were other groups that felt that a more prescriptive approach, where aquaculture would have been treated far differently, there were groups that

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certainly expressed that and I shouldn't imply that that wasn't the case, but within the department, as we went through the process of finalizing the document and the extensive reviews that we took both within the region and through the Departmental Management Committee and headquarters in Ottawa, there were fine-tunings and tweaks and, you know, right up to the -- right up to the end of the -- of the finalization of the policy and I think at the end of it, I think everyone within the department was quite satisfied.

MS. GLOWACKI: Could I please mark the last email - again, I was remiss - as the next exhibit? And that was the March 21st, 2005 email?

THE REGISTRAR: One hundred and sixteen.

EXHIBIT 116: Email from Brian Riddell to Andrew Thomson and others dated March 21, 2005 Re: WSP Meeting Locations Confirmed

MS. GLOWACKI: And then finally can you call up Exhibit 94, please, Mr. Lunn?

Q And this is a memo for the minister. Yesterday, I believe Mr. Saunders you said that you had a hand in drafting this? Do you recall that?

- MR. SAUNDERS: I'm not -- can you scroll down a little further? I -- given the timing on it, I would say -- yeah, if you can just keep going down to the bottom. Yeah, I... I may have had -- contributed to it, but I don't know that it was -- that I was the lead author or sole author on it.
- Q Okay. Do you recognize this document?
- MR. SAUNDERS: Can you go back up to the top again, please?
- Q My understanding is really the memo to the minister right before the Wild Salmon Policy was adopted and the department is recommending to the minister that it is in final form and ought to be adopted.
- MR. SAUNDERS: Honestly, I don't recognize --
- 42 THE COMMISSIONER: Mr. Timberg?
 - MR. SAUNDERS: -- that as my writing.
 - MR. TIMBERG: I'm just wondering if the -- I note that the document has a number of other attachments that go further on. Perhaps the witness could be provided the opportunity to review that.

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- MS. GLOWACKI: Well, I just -- okay. In the interests of time, I don't think that we need to go through -- this has already been entered as an exhibit and I just want to go to a statement on the first page.
- MR. TIMBERG: In the interests of fairness to the witness, though, I suggest that he should be entitled to see the entire document.
- MS. GLOWACKI: Can we go to the sentence that I want to go to and then if he doesn't think it's fair to see the whole document then he can go further in? It's a relatively simple point.
- You'll see the second bullet, it says:

Following the consultations in April, three concerns regarding the policy had not been addressed. First, many participants were critical of the approach to the regulation of aquaculture, and advocated more rigorous controls be imposed.

And we don't need to read the rest of that. then the next bullet:

> The Department has been asked to consider additional consultation with the ENGO's. Further consultation is not advisable.

And then the final paragraph or bullet is:

It is recommended that the Wild Salmon Policy be adopted...

So my only point that I am interested in the opinion of the panel or the agreement of the panel is that aquaculture and the desire for more rigorous control of it was an outstanding issue at the time the Wild Salmon Policy was passed.

Mr. Saunders, would you agree?

- MR. SAUNDERS: I don't -- I don't recognize this as my writing. I don't think this would have been something that would have gone up from my level. My recollection is that there was -- was mainly around the prescriptive piece. I don't in particular remember a statement around aquaculture.
- So none of the panellists recall that -- whether Q.

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aquaculture was an outstanding concern? Yes, Mr. Chamut?

MR. CHAMUT: What you've got here is a memo that went to the minister. There's another one that preceded this, that as I recall there was -- it basically did most of the same as what's here. And at the time, the department was providing advice to the minister on Wild Salmon Policy. had recently concluded the last bits of our consultation which I think occurred in -- at the end of April and this memo essentially summarizes where we ended up at the end of those consultations and it summarizes in the summary box, it does indicate that it confirms to the minister that there was not unanimous approval or agreement about all of the details of the Wild Salmon Policy and it indicates that there were probably three main areas where people were going to express concern: one was about aquaculture that did come up in our consultations; secondly, particularly the environmental groups thought a policy that was more prescriptive, and they didn't like some of the provisions that provided some discretion to the minister; and thirdly, a number of groups were concerned about whether the department had the appropriate resources for implementation. So that's summarized there.

The -- I think the important thing is that the -- what we had done was gone through a process and although our objective would have -- it would have been desirable to have unanimous consent, it proved to be elusive and we felt that if we were to make any changes in the policy at that point, in case -- in the case that you're particularly interested in with respect to, for example, aquaculture, then we would have been in essentially a zero sum game where we might have accommodated some concerns but we would have raised a whole host of others. And in the judgment of the department and on the advice that was provided to the minister, we felt that the policy that was put forward had the support of a large number of groups. Some groups were concerned and opposed to parts of it, but we felt on balance if we started to either engage in more consultation or we tried to find ways to accommodate the outstanding concerns, that the

whole thing was going to unravel. So that's basically what this memo is about.

- Q Okay. Thank you. I just have one final question then. So we end up with a department being satisfied and I understand that you are each still satisfied with the approach adopted for the treatment of aquaculture and that is, if I could summarize, to describe it as akin to other human activities that may pose a risk to wild salmon, and to highlight the department's efforts at regulating aquaculture and to assure the public that aquaculture would be regulated, in keeping with the goals of the Wild Salmon Policy; is that a fair summary, Dr. -- yes, Dr. Riddell?
- DR. RIDDELL: Yes, I think that's a fair summary. I might point out that we've talked a lot about guidelines and operational advice. I mean, there's nothing in the Wild Salmon Policy that prohibits the department from writing more specific guidelines on any one of these particular topics we're talking about and that, and I think that's what's evolved since this time.
- Q Right.

- DR. RIDDELL: But within the broad policy.
- Q Okay. So the regulatory part of it, you'd agree with me that at the time of the Wild Salmon Policy being passed, there was no federal aquaculture regulations, correct?
- MR. CHAMUT: I may be misspeaking. I'm going back a number of years. I believe there were regulations in place dealing with aquaculture, but my hesitation is just I'm really finding that my memory is failing on me, and I but I would be quite reluctant to say there were no regulations. I know that the department did regulate aquaculture in terms of siting and a variety of other things that were in place, and I think they had fish health regulations that would have been in place at that time, so there were there were regulatory mechanisms in place that the department had, but I'd be hard-pressed to tell you exactly what they were.
 - All right. So there's nothing on page 31 of Exhibit 8 that refers to a regulation specifically directed at aquaculture, maybe that's more tangible. Are you aware that the federal government is currently in the process of

1 developing aquaculture regulations for the 2 province now? MR. CHAMUT: No. I've been retired for six years and 3 4 one of the things that I cheerfully left behind 5 was concern about the regulation of aquaculture 6 and the status of government efforts to do that. 7 Okay. 8 MR. CHAMUT: Thank you. 9 Has any other panellist? 10 MS. GLOWACKI: I assure you, Mr. Wallace, I am at the 11 very end of my questioning. 12 MR. WALLACE: Okay. 13 MS. GLOWACKI: I'm trying to get --14 MR. WALLACE: Well, the question relates to what's 15 going on now with respect to the regulations of aquaculture. I don't see how that affects the 16 17 development of the Wild Salmon Policy up to 2005. 18 MS. GLOWACKI: Only that Mr. Chamut wasn't clear 19 whether there was, in fact, aquaculture 20 regulations at the time the policy was passed. 21 But that's okay. My understanding, and it's highlighted here, the 22 23 one section that's highlighted is Section 35 of 24 the **Fisheries Act** as the regulatory tool of the 25 department. Perhaps we could call up Exhibit 8, 26 page 31, please. In the fourth paragraph: 27 28 All fish farm sites must undergo a review for 29 potential habitat effects... 30 31 And I only highlighted that because it appears to 32 be the actual piece of federal legislation that's 33 -- Fisheries, DFO legislation, that is referred to 34 in here and I --35 MR. WALLACE: Mr. Commissioner, I'm not sure what Ms. 36 Glowacki is seeking here, but if it's an 37 interpretation of the statute, I think that would be an inappropriate question. The Act and the 38 39 state of regulations is what it is. 40 MS. GLOWACKI: I guess my line of guestioning for the 41 panel here is that these are the people who 42 drafted this section and part of it was they 43 decided to describe it as another activity and one 44 which was regulated by the department and just

decided just to describe how, in fact, the department does regulate aquaculture, and so I

wanted their understanding of the effectiveness or

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the completeness of federal regulation. But I believe that we can get into that on another day, so I will leave my questioning there. Thank you.

- MR. WALLACE: Thank you, Ms. Glowacki. The next participant on the list is the Conservation Coalition.
- MR. LEADEM: Leadem, initial T., appearing on behalf of the Conservation Coalition.

CROSS-EXAMINATION BY MR. LEADEM:

I want to begin by addressing an issue about the internal tension that existed within the department around the process that led up to the development and eventual promulgation of this policy. And I want to do that by examining what you each had to say about that in your précis of evidence.

I'll start with you, Dr. Riddell. Exhibit 99, please? And page 2 of that, if we have the right one now, the second bullet down under WSP development from 2001 to 2005:

He can generally describe DFO's efforts to develop operational guidelines to support the draft WSP. He will say that fisheries managers were very hesitant and concerned with implementing the WSP without operational guidelines.

Was that your recall of the discussion that you were privy to at the time, Dr. Riddell?

DR. RIDDELL: With the qualification that that section is referring to the time when I was away and outside most of the main discussion, the developing of the policy, and the only sort of access I had to that was a couple of the public meetings, a couple of the meetings with ENGO's and my knowledge of it was a tension within the department between science and fisheries management, which I think other panel members referred to yesterday.

Yes.

DR. RIDDELL: And it had to do really with the policy being a very broad consideration at a pretty high level, when you're an in-season manager. And so

46 level, when you're an in-season manager. And so 47 people were concerned about what it meant when you

actually applied it in-season in managing fisheries and that. And there was a tension internally in a sense of managers not wanting to buy into something they didn't really fully understand how they would implement.

Right. They wanted to know what the bottom line

was in terms of how the fishery would be operated

from year to year; is that fair to say? DR. RIDDELL: That's fair to say, yes.

Mr. Saunders, you characterized this tension this way, if I can ask you to turn to Exhibit 101 which is the précis of your evidence and the fourth bullet down under the heading "Development of the Wild Salmon Policy Development Team", you say:

In particular, he will say that there was tension between Science staff, who wanted a more prescriptive policy, and FAM who wanted a management framework that was practicable and flexible with the ability to consider social and economic factors in setting management objectives.

FAM stands for Fisheries Aquaculture Management, does it not?

MR. SAUNDERS: That's correct, yes.

Q And does that accord with your understanding of the tension that existed at the time?

 MR. SAUNDERS: Yes, that correctly reflects the tension when I arrived, at least in my opinion, in April of 2003.

Yeah. And you go on to say in your précis that:

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...some Science staff saw the role of Science as identifying conservation limits to harvest activities and the role of FAM as implementing those limits, without integration between the sectors.

And that was the tension between the fisheries aquaculture management and the science team at the time, was it not?

MR. SAUNDERS: Yes. That's how I characterized it, yes.

And finally, Dr. Irvine, if we can turn to Exhibit 103 and the second page the seventh bullet down beginning with the sentence:

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He will say that, as of 2002, WSP development was led jointly by Policy and Science branches within DFO. He will say that FAM subsequently expressed concern that operational guidelines would formalize decision-making rules.

And then:

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...in 2003 and 2004, the direction shifted focus towards avoiding an overly prescriptive approach to those activities.

That accords with your information and knowledge at the time, does it not?

- DR. IRVINE: Yes, it does, although perhaps I could elaborate a little bit. As I indicated yesterday, it was at about this time that the overall direction of the policy shifted away from one that was strictly Science Branch to involving Policy Branch that took over the lead or at least shared the lead within Science Branch. It was also at about this time that we really recognized internally at least those of us within science that -- of the importance of non-scientific factors in the decision-making process. And so it would be -- you could develop operational quidelines from a scientific perspective, but as soon as you have to incorporate social and economic concerns, then it becomes a far more complicated issue to deal with, and that, as we discussed yesterday, is basically why we -- or part of the reason why we shifted away from this prescriptive approach with operational guidelines.
- I fully appreciate that's what you came to and that was -- you put that into a publication, Exhibit 96 in these proceedings, I believe, but I suggest to you that if science had its way with respect to the WSP we would be having more prescriptions involved, so that we would actually approach it from a biological perspective; is that fair to say?
- DR. IRVINE: Well, science is quite a big term. You know, it's like law, you know, there's quite a range of opinion within scientists, as there are within lawyers, I would imagine, on a variety of issues. But it's really the separation of, as I

said yesterday, natural science and social science. If one is strictly concerned about the biological issues pertaining to the status and the survival of populations, it's relatively easy to do.

However, Fisheries and Oceans Canada is more than science. We have to manage the resource, we have to incorporate all these other concerns in the management of the resource. So I don't think you can say that science would do it one way, you know. I think that it's -- if you look at it strictly from a conservation biology perspective, you would come up with one set of conclusions, but our job is more than that.

- And I suppose it comes down to this, that in a very real sense this tension contributed to some of the delay in terms of getting this policy out the door; isn't that right, trying to work through the process internally?
- DR. IRVINE: Well, certainly that's true, and I think the end result was a far more powerful policy.
- Q But it also strikes me that what gave way in this case is that the scientists who originated the policy, who originally said we should have prescriptive measures taken in order to conserve the salmon, gave way to the management sector which said well, wait a minute, we've got to consider socioeconomic details. And that's what interests me, how do you resolve that type of internal conflict?
- DR. RIDDELL: Mr. Commissioner, maybe I can comment that I don't think it's accurate to -- you're probably referring to Science Branch, not so much as science.
- Q That's correct. Yes, and the scientists.
- DR. RIDDELL: And the scientists in the Stock
 Assessment Branch with the Salmon Division, but
 those people are also experts in sustainable use
 and that, so the first mandate, and this came up
 earlier today, that you can't have sustainable use
 without sustained resources, and conservation
 comes first in terms of having a healthy natural
 resource base.

That's the fundamental -- that's the fundamental goal of the Wild Salmon Policy, so that you have a healthy resource base upon which that you can have multiple uses, not just fishing,

 but fishing, of course, is one of the prime assignments of the stock assessment program, as well. We are, in stock assessment, required to do the evaluations of the status of the resource and to make recommendations to management about the sustainable rate of use that could be applied in a particular year and that.

So I don't think it's fair to say that scientists were all simply conservation only. It is about establishing a conservation policy that will sustain the natural resources, in this case the Pacific salmon, and at the same time to do assessments to advise managers on appropriate rates of harvest and to look at how you would make judgments because not all populations, or in our case CU's will be at the same status all the time.

And the worst case scenario now we have some that are very depressed, like Sakinaw sockeye and Cultus Lake sockeye. We have others that are very abundant. So how do you limit the harvest rates so that you can sustain the depressed populations and still have some level of harvest? All of that requires science and evaluation. But it's not true that we are completely removed and only concerned about conservation.

- Q No. I appreciate that, Dr. Riddell. But I want to come back to the focus of my question, which is more on process than it is on substance. And if you have internal debate in different sectors of the department, how do you go about resolving that? Do you have some mechanism? Do you have some mechanism such as mediation or some arbitration mechanism where you can actually knock heads and come to some resolution prior to just stretching this out for years until you actually satisfy the debate by relentlessly going over and over it again? Mr. Saunders?
- MR. SAUNDERS: Yeah, I think I spoke to it earlier in some fashion, but I think the resolution to the tension comes into collaboration. I think -- it's been stated here, I mean, fundamentally when -- what I saw the tension was that the scientists felt they had -- if they were in charge, that it would be they that would set the conservation limits but, in fact, science -- scientists provide and that's where I spoke earlier about the range where we eventually landed on benchmark, science

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-- the Science Branch provides advice and, in fact, it's not our purview to make those -- make those decisions.

So we had to work through that process and the mechanism for us to come to understand that, I think, was fairly unique in that, as I think Dr. Irvine pointed out, that when the policy was being developed in 2002, it was largely a science effort that was being brought to the table and then commented on by other sectors. As you moved into the later stages, Policy Branch led it, recognizing that Policy Branch covered more -- was more than -- was representing all of the sectors. But then we put an interdisciplinary team or a multi-sectoral team to work on it and I would say, and as I've said in my evidence, I think Pat Chamut was a big part of being able to put in place a process.

And without hesitation I know that we knew that Pat carried a very big stick when he came from the minister's office, but he never had to wield it because he took the effort and the time to understand the interests that were around the table. What was science really trying to say about biodiversity? What did fisheries management need to incorporate or need to do their job? And I think in listening and -- we went back to the drawing board many times on Pat's request saying this isn't working. And we would go back and so it was really a true collaboration across sectors. I don't think many -- most policies to this point would have been national policies would have been a policy of habitat, a policy of science, a policy of fisheries management. This, I'd say, was one of the rare policies that was cross-cutting across all of those sectors and Pat was -- and this group was -- took the time and was able to work through in collaborative fashion to get something as collaboration would demand that we're all happy with in terms of consensus. Nobody went away saying this isn't going to work for me.

- No. I fully appreciate that --
- MR. SAUNDERS: Yeah.
 - -- that commentary, Mr. Saunders, and I think the point I'm just trying to drive home to you and to see if I can get some agreement from the panel is that this process was inordinately long in terms

of trying to work through the process and I was wondering if there's some other way that you can approach it. I mean, yes, you did bring in Mr. Chamut and eventually you got the policy in place, but you were five years or plus five years in the making. So I'm wondering if there's another process that you can conceive of and I suggested some facilitation process with either a mediator or an arbitrator that would help you reach that consensus in a much more direct fashion. Mr. -- or Dr. Irvine seems to be nodding his head. Maybe I've found some reception on the panel.

DR. IRVINE: Well, no, it's not a bad idea. really, the paper that I described yesterday tried to identify other ways that the process could be sped up. And -- but you have to recognize this was a very -- I don't know, evolutionary period within Fisheries and Oceans, but also within what was going on internationally in terms of conservation biology and fisheries management. there was a lot that was being learned. We were -- you know, the **Species at Risk Act** was being finalized, the Wild Salmon Policy, there's all sorts of issues going on in the Pacific Northwest of the United States, so this was not a simple thing, a simple nut to crack, so, you know, I appreciate your suggestion about a facilitated meetings.

Now, in fact, that's what the multi-stakeholder sessions were. So at those two sessions, you know, there was -- I think the 2nd or 3rd of March 2005 and 29th and 30th of April 2005, those were professionally facilitated, so we brought in facilitators. We had break-out groups. We documented everything and I think certainly having the professional facilitation at that stage assisted us with making the final changes and coming up with a policy that satisfied most of the participants.

Q Mr. Chamut, you had a comment?

MR. CHAMUT: Yeah. I would like to just comment on the notion of mediation. You're dealing with the Department of Fisheries and Oceans with a number of different sectors, each sector different responsibilities, lots of competition for resources and a whole bunch of other things that sometimes make the department appear -- the

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expression was that it operates in stovepipes. And there's two places in the organization where those stovepipes get kind of brought together. And one is at the level of the regional director general within a region and the second is at the level of the deputy minister.

So I've never heard -- and I don't think it would be within a hierarchy like a government department. The idea of mediating between two sectors, I don't think would ever be considered. Sometimes people might get a facilitator in to see whether or not they can bridge some of the differences, but in my experience you're going to -- if you have these sorts of disconnects or conflict between sectors, it's going to get resolved at one of those two levels that I I mean, the RDG's role is to deal with mentioned. the operations within the region and where there are differences of opinion, to reconcile those, to knock heads, to put in -- you know, basically give direction as to how people should be operating together. And I think that would be, in most cases, the preferred means by which these sorts of differences would be reconciled.

Where they're not reconciled, you've got a deputy minister in Ottawa who oftentimes could be called upon to reconcile these sorts of differences, and that's the other area or the other place in which that can occur. And it's generally much preferred that it be done at the regional level.

I think in the case of Wild Salmon Policy, it seemed to me from where I was sitting that there was, and it was obvious that there was disconnects between fish management and science and I personally think that there probably needed to be more direction and maybe more focus from the level of the regional director general at the time that this was kind of getting into difficulty. You described very much a top-down hierarchical

this was kind of getting into difficulty. You described very much a top-down hierarchical approach which is what government tends to be, but the problem that I'm going to put to you is that within the confines of the Department of Fisheries and Oceans, and this is a theme that I'm developing through other testimony, you've got a lot of competing mandates. And how you address those competing mandates and how you address those

 situations is not an easy task. So ultimately you're going to have to address it from the top down because that's how you've structured yourself. But if you thought in terms of structuring yourself differently or else dissecting away some of those competing mandates so you didn't have those internal strifes, you might be able to get your job done a lot more better.

MR. CHAMUT: Well, you could certainly -- you could dice and slice things in various ways, but there are -- in any large organization, I don't care whether it's government or whether it's business, you're going to have oftentimes these sorts of internal conflicts and the department, like any other organization, has mechanisms to deal with them. When we talked, and I think some of the material that's been before the commission has talked about something called the Policy Committee, both in the region and in headquarters. And the Policy Committee in the region is there to try and identify areas where there may be disagreement and to reconcile and bring people together.

And the same holds true in Ottawa. there are differing points of view, different mandates and there are mechanisms though to bring That's oftentimes what a large those together. part of what Ottawa ends up doing. And I think, you know, in this case I think the model that we were able to follow was we did not -- the deputy did not intervene in saying do this this way. deputy clearly indicated that this was important and he, I think he felt that putting myself into this particular mix may be serving as a bit of a mediator to try and identify where the differences were and try to find a way to bridge them and come up with a policy that was going to be consistent with our responsibilities and meet our objectives with respect to wild salmon management.

- Q I saw very much that your role was as a facilitator in this, Mr. Chamut, so to that sense, perhaps you are in agreement with me, that sometimes facilitation and mediation can affect some resolutions to ongoing disputes.
- MR. LEADEM: Mr. Commissioner, I note the time and I was wondering if we could take a break.

THE REGISTRAR: Hearing will now recess for 15 minutes.

(PROCEEDINGS ADJOURNED FOR AFTERNOON RECESS) (PROCEEDINGS RECONVENED)

MR. LEADEM: Leadem, initial T., for the record, Mr. Commissioner.

Mr. Lunn, can you pull up document number 8 from the Commission counsel's list of documents of potential exhibits, please? It's Canada 023452.

CROSS-EXAMINATION BY MR. LEADEM, continuing:

- Q Dr. Irvine, I'm going to ask you about this because, of the panel members, you seem to have the most longevity with respect to working on this policy. Do you recognize this document? We can go to some of the pages if it would assist you.
- DR. IRVINE: I think I do. I should point out that Dr. Riddell was involved in this stage. I have the record for continuity rather than longevity.
- Well, I'm not going to quibble who's older amongst you because I learned long ago not to engage in those kinds of debates.

Dr. Riddell, do you recognize this as well, this document? It seems to be a policy committee draft of the Wild Salmon Policy, and from my way of looking at this from a historical perspective, it seems to be one of the earlier ones that contains a lot of the early -- early thinking about this Wild Salmon Policy.

- DR. RIDDELL: Well, by the date, I agree with you, but I have to admit I don't believe I have seen this, or I simply have forgotten this. It predates the first release in March 2000, so I think you're correct.
- Q Well, my questions to you are going to be predicated on some of the contents of the document, and I want to begin by examining, at the base of page 14 of that document. You should see at the bottom, "Wild Salmon, Principle 3, Minimum wild salmon abundance levels will be established."

There's a reference there to the precautionary approach and, in the language of the precautionary approach, the minimum abundance level is a limit reference point, LRP, defined as the minimum abundance that must be maintained to

ensure conservation.

So is it your understanding that that limited reference point, and target reference points, are all derivations from the precautionary principle? Dr. Irvine or Dr. Riddell?

- DR. RIDDELL: Are the terminologies derivations from the precautionary principle?
- Q Yes.
- DR. RIDDELL: Is that the question? No, I don't believe so, but I believe that they evolved shortly after the development of the precaution principle and the precautionary approaches, and they were steps to implement the precautionary procedure in actual management scenarios.
- Q Right. So they were prescriptive in nature as opposed to flexible; is that correct? Do I have that right?
- DR. RIDDELL: They would be specific management targets in that sense, and so it's possible for them to change if the productivity of the population or the particular stock of interest changed. But typically, they would be considered fixed in a certain time period.
- Q And if I could ask you now to, in that same document, go to page 16 at the -- this is under the heading "Wild Salmon Principle 6".

Conservation of wild salmon populations will take precedence over other production objectives involving cultivated salmon.

The second full paragraph under that heading, the one beginning:

The greatest increases in world salmon harvest have come from aquaculture.

And then it follows through and discusses some report produced by the Environmental Assessment Office of British Columbia which concluded that:

There is no reason to expect that Atlantic salmon are having a significant effect on Pacific salmon at current levels of abundance.

Then it goes on to say:

Should this situation change, the convention on biological diversity advises that introductions of alien species that threaten ecosystems, habitats or species should be controlled or eradicated.

So my understanding is, is that Canada is a signatory to the convention on biological diversity. Is that right, to your knowledge?

DR. RIDDELL: That is correct.

And so as a signatory, then, if there is a threat posed to the ecosystem, to species in the ecosystem through the introduction of alien species, that convention would call for the control or eradication of the alien species introduced; is that not correct?

DR. RIDDELL: Yes. To my knowledge, I think that would be correct.

 Right. And so that -- that's a biological principle, not just a principle that is one that you would recognize from the convention on biological diversity, is it not? That's an aspect of conservation biology.

DR. RIDDELL: Mr. Commissioner, I think that's actually correct. There is a large symposia that would have been in -- it was in the 1990s, I can't remember the exact date, but the outcome of that is a very strong statement that invasive exotic species, the outcome of the -- or the effect of that in natural ecosystems are highly unpredictable and almost always negative, in that they have significant impacts.

Q Right.

DR. RIDDELL: And that's across many taxa.

 So if we look at the situation that engender the early formulation of the principles that gave rise to the Wild Salmon Policy, we see at its very genesis this concept that if you have an alien -- introduction of an alien species, you may have to control it in order to save the ecosystem.

I'm thinking specifically, in this context, it's aquaculture and the introduction of the species is the Atlantic salmon in Pacific waters; isn't that right?

DR. RIDDELL: Well, in the particular example you're talking about, yes, there are not -- there are no other non-endemic salmon on the west coast in

current time. There were, way back in the '20s, 1 introduction of Atlantic salmon and brown trout to 3 the Cowichan River, for example, but in recent 4 years the only importation of an exotic salmon is 5 the Atlantic salmon for aquaculture. 6 So according, then, to the convention, if there 7 should be some linkage between a threat to the ecosystem posed by the introduction of an alien 8 9 species, then the principles of conservation 10 biology would call for the eradication of that 11 particular species; is that not correct? Well, I don't think it's guite that simple because 12 Α 13 it says "control or eradication", right? 14 Q Yes. 15 So, I mean, we have to recognize that the element of control is still there. I think that if you 16 17 look at the history of the escapes from salmon 18 farms, for example, it has been reduced majorly 19 through time. There were very large escapes in 20 the 1990s and that, so I think right now your argument would not be as simple as eradication, 21 22 but it would have to assess control. 23 MR. WALLACE: Mr. Commissioner, I appreciate that this 24 line of questioning comes from an early draft 25 apparently of the Wild Salmon Policy, but we seem 26 to be getting -- drifting away from the Wild 27 Salmon Policy and into aquaculture issues which --28 MR. LEADEM: I was actually just moving from this 29 topic, Mr. Wallace. 30 MR. WALLACE: I was too slow. 31 MR. LEADEM: Even as you rose. I got the answer that I 32 was looking for. Thank you, Mr. Commissioner. 33 If I could have Exhibit number 87, please? 34 Oh, sorry, I'm wondering if I could mark that as 35 an exhibit, Mr. Commissioner. 36 THE REGISTRAR: Exhibit 117. 37 38 EXHIBIT 117: Fisheries and Oceans Canada 39

EXHIBIT 117: Fisheries and Oceans Canada Policy Committee Draft, Wild Salmon Policy: A New Direction, Draft for discussion purposes only, dated 17/05/99

MR. LEADEM: If I could ask now Mr. Lunn to pull up Exhibit 87. It should be -- and if you can just scroll down.

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Q I know they were going through this quite quickly, gentlemen, but I'm going to ask you if any of you

recognize this document? It appears to have been signed by the Associate Regional -- or the Assistant Regional Director at the time, Mr. Macgillivray. Do either -- or does anyone on the panel recognize that document? It's a response to the Auditor General's reports.

DR RIDDELL: Mr Commissioner I can say that I am not

- DR. RIDDELL: Mr. Commissioner, I can say that I am not aware of that document, but I was out of the Department at that time in 2003.
- MR. CHAMUT: Similarly, I don't believe I've ever seen the document. I certainly don't recall it.
- All right. I'll reserve that for Mr. Sprout, then, who probably will have some information to share with me on that topic.

The thrust of the report -- and maybe I can ask you this as general question, is that the Auditor General's expressing some discomfort at the WSP not being implemented within a certain time frame and is questioning the Department as to when they may -- when he might expect or she might expect the report to be prepared and finalized.

Was the Auditor General's material a driver for the implementation -- or, sorry, for the passage of the Wild Salmon Policy? In other words, did it drive it through to some conclusion?

MR. CHAMUT: I can offer an opinion on that. It was one of the -- there was a number of groups that were calling for Wild Salmon Policy. So obviously it was -- it was one of the factors. But I would certainly not say it was the driver. I think that the Deputy Minister in particular was very keen on making sure that the Wild Salmon Policy was finalized. I think a lot of the pressure was because of the importance that he attached to it, and of course I'm sure that his impression of priority was generated by reports such as the Auditor General.

I think there was also comments from the Commissioner on Environment who also had similarly had called for the policy to be finalized. So there was a variety of these sorts of things that were coming into play around that time.

Q Was there also a factor that the MSC process was percolating along and that it was recognized generally with the Department that the passage of the Wild Salmon Policy would assist the MSC certification process. Was that also a factor in

terms of moving the policy along?

MR. CHAMUT: Do you have a particular time frame? I don't particularly recall the MSC certification being anything that came into -- as a motivator from the time that preceded the time I was here, and even after the time when I arrived, I can't remember MSC certification being one of the things that lit a fire under us.

I think it was one of the events that was -- I think we were all generally aware of, but I don't recall it being an important driver of getting the policy completed.

Dr. Riddell?

DR. RIDDELL: Well, I would agree with Pat's comment. I might add that I think if you look back at the timing of when MSC certification for sockeye -- and I think we talked about this yesterday -- it did take about nine years. But if you're going back to 2003, 2005, it was in the very early going of the certification. It took quite a bit of time to get the early documents out. I don't believe it even really had to review by the time that we had the Wild Salmon Policy.

I think actually, if you looked at the chronology, you may find that the Wild Salmon Policy contributed to the review under MSC because it allowed them to define conditions that would allow certification if you met the conditions over the next five-year term. So maybe it's actually the reverse of it. But I don't think that the chronology, as such, that it was a major driver for us.

- All right. So, in other words, you're saying the converse is true, that the Wild Salmon Policy assisted the MSC certification process. So it was more of a -- more of a driver for the MSC process than the MSC process was a driver for the WSP. Mr. Saunders?
- MR. SAUNDERS: I would say there was a synergy between the two. I don't think one drove the other, but I think it was recognition that they were both complementary, they were both heading to the same place, that MSC certification would assist, you know, in the implementation of the Wild Salmon Policy and vice versa.
- Q I was wondering if we could now turn to a letter that is in the coalition -- conservation

coalition's documents. It's a letter of May 1st 1 to Mr. Saunders from Mr. Langer. This would be 3 item 2. This is addressed -- actually it's addressed to Dr. Saunders. I don't know whether 5 that would be the same -- is that yourself, Mr. 6 Saunders, in all probability? 7 MR. SAUNDERS: That's me, but I'm not a doctor. 8 Do you recall receiving this? 9 MR. SAUNDERS: Yes, I do. 10 And this was written at a time when there had been 11 ongoing discussions with environmental groups 12 concerning the various drafts of the Wild Salmon 13 Policy; is that right? 14 MR. SAUNDERS: That's correct. 15 MR. LEADEM: Could we have this marked as the next exhibit, please. 16 17 THE REGISTRAR: Exhibit 118. 18 19 EXHIBIT 118: Letter dated May 1, 2005, to 20 Dr. M. Saunders, from Otto E. Langer, David 21 Suzuki Foundation, Re: Critique of the April 22 22, 2005 Draft Wild Salmon Policy 23 24 MR. LEADEM: 25 Next to the last page of that document under the heading "Conclusions", the author says: 26 27 28 We will be much more comfortable with the WSP 29 policy when it clearly indicates that DFO 30 will close fisheries or take other drastic 31 actions as necessary for the sake of 32 conversation. 33 34 That's what I believe you people have been calling 35 the "prescriptive approach"; is that right? 36 MR. SAUNDERS: No, I wouldn't say that. 37 All right. How would -- well, in terms of closing the fishery, is it -- will DFO actually ever close 38 39 the fishery to protect a conservation unit? 40 MR. SAUNDERS: Well, DFO has already closed fisheries 41 even before the implementation of the Wild Salmon 42 Policy to protect what were called or identified 43 as stocks of concern. So, yeah, no question. 44 Fisheries will be closed to conserve conservation 45 units at some point.

MR. LEADEM: Could we have Exhibit 94, please?

This is the document that you just recently saw,

46 47 and my understanding is that roughly around the time at the end of May 2005, the draft of the Wild Salmon Policy was sent to the Minister for approval for promulgation as a policy. And that, for various reasons, that time frame got extended until June. Does that accord with your knowledge as well, gentlemen?

MR. CHAMUT: Yes, that's correct.

- Q All right. And essentially, the Minister did not sign off on this because he was responding to some concerns raised by a group called the Marine Conservation Caucus, and the ten points they had raised concerning some deficiencies that were alleged to be within the confines of the WSP; is that right?
- MR. CHAMUT: That's correct. My recollection was the Marine Conservation Caucus had circulated those ten points to members of the B.C. caucus. And I think the Department first became aware of those concerns in about the second week of May. The Department provided a response to the Minister and I think that response basically reacted to the ten points that had been raised and was forwarded to the Minister prior to this particular memo that you have up in front of us dated May 27th.
- MR. LEADEM: Right. If I could ask -- Canada 033249, please. It's within the coalition conservation documents. I'm just trying to find the number here, Mr. Lunn. I believe it's 15.
- Q There's an email from you, Mr. Chamut, to a Julie Norris. Did you write this?
- MR. CHAMUT: Sorry, my mike was not on, so I'll repeat it. Yes, I did.
- Q And with respect to the last word in your email, just so I have it clear who that refers to, you're referring to the members of the Marine Conservation Caucus?
- MR. CHAMUT: That's correct, and if I can just amplify that, the first point I'd make is that that obviously reflects it's a good example of not striking the "send" button on your computer when you're frustrated and more than a little upset. 'Cause I think at this point, I had just seen the ten points and I was quite disappointed and frustrated that those points would have been raised in the way that they did in the way that they were at that particular time. I was

- particularly unhappy with the way that had been done. That is obviously reflected in the comment that you see before you.

 Now, you were concerned from the Minister's
 - Q Now, you were concerned from the Minister's perspective. The Minister basically said that he would like to see more funding for implementation as part of the roll-out for the policy and the eventual promulgation of the policy. Isn't that fair to say?
 - MR. CHAMUT: I can't answer that, sir. I really don't know. I don't recall the Minister making his approval condition on new funding. I simply just don't remember that.
 - Q All right. Perhaps maybe to assist your memory, we could go to Tab 16, or item 16 from the implementation documents, Canada 129031.

There is a -- the heading is an email from Ms. Farlinger to Carol Cross, but if -- there's an included message and it's from you, Mr. Chamut. I'll just allow you to read it through.

- MR. CHAMUT: Okay, that does refresh, but I certainly didn't recall that.
- Q Right.

- MR. CHAMUT: And I'm not sure, in reading it, that the Minister said, "I'm not going to approve this unless there's more money." I think what this says is that if we can get more money, it will help overcome some of the reservations the Minister had because of some of the controversy around the policy, where there was still groups that were concerned about its -- about its content and about implementation.

 Q Right.
- MR. CHAMUT: Because if you go back to one of the documents you put up just before this, I summarized I think there were three main points that were people that were offside: concerns

about aquaculture, concerns about a nonprescriptive approach, and thirdly, does the Department have the money necessary to implement.

It was my view, and the way I'm reading this, is that based on concerns about implementation, if we were able to provide some money that would go along with the pronouncement of the policy, then I was reasonably confident that some of the groups that were expressing reservations would in fact come on side.

And perhaps just as a follow-up to that, if I 1 Q could show you document 18 from the implementation 3 documents from -- that Commission counsel have provided. Once again, there's now an email chain, 5 and the second one in that chain is from you to 6 Ms. Farlinger, Mr. Chamut. 7 I'll just give you -- it's rather lengthy. 8 I'll give you a chance to review it, and just --9 I'm going to ask you to confirm that that in fact 10 is an email that you sent. 11 MR. CHAMUT: Yeah, that would be my memo or email. 12 MR. LEADEM: Mr. Commissioner, I neglected to have the 13 previous email, the one dated June 1, 2005, 14 entered as an exhibit. I'd ask that it be entered 15 as the next exhibit in these proceedings. 16 THE COMMISSIONER: I'm sorry, counsel, I --17 THE REGISTRAR: Exhibit 119. 18 THE COMMISSIONER: I apologize, I had in my notes two 19 emails prior to this one, but perhaps my notes are 20 incorrect. The one that you're referring to, is 21 that your document 15? 22 MR. LEADEM: Yes, I believe I neglected to have that 23 tendered as an exhibit as well as the next two 24 emails in sequence. 25 THE COMMISSIONER: Oh, I see. 26 MR. LEADEM: I'm backing up on myself and I'm 27 forgetting to enter these -- or tender these as 28 exhibits. 29 THE COMMISSIONER: No, that's fine. 30 MR. LEADEM: So perhaps we can just go back and clarify 31 the record now. 32 THE COMMISSIONER: All right. 33 MR. LEADEM: So the email of May 13th, 2005, will be 34 the next exhibit followed by the email of June 1, 35 2005, followed by the email of June 3, 2005. So 36 if they can all be then accorded exhibits numbers, 37 please. 38 MR. LUNN: I'm sorry, I'm just having trouble following 39 you here. The email of May 13th? 40 MR. LEADEM: Yes. The one that was part of the 41 coalition conservation. I think that was document 42 15, Mr. Lunn, of the coalition documents. 43 THE REGISTRAR: May 13th will be marked as Exhibit 119. 44 MR. LEADEM: I think it was document 16, Mr. Lunn, I'm 45 not sure. Should be June 1st. THE REGISTRAR: The June 1st document will be marked as 46

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MR. LEADEM: It's document 18, perhaps. Thank you. My apologies, Mr. Commissioner. I was getting too far ahead of myself.

EXHIBIT 119: Email dated May 13, 2005, from Julie Norris to Pat Chamut, Subject: Re: Wild Salmon Policy

EXHIBIT 120: Email dated June 1, 2005, from Susan Farlinger to Carol Cross, Subject: Fw: The Funding of the WSP

THE REGISTRAR: The June 3rd document will be marked as 121.

EXHIBIT 121: Email dated June 3, 2005, from Susan Farlinger to Pat Chamut, Subject: Announcement of Wild Sockeye Policy

MR. TIMBERG: Mr. Commissioner, if I could just clarify a point, while we're here. These documents are coming from the Commission's list of documents for the implementation day, which is to commence tomorrow, and so these are not — these documents are not on Mr. Leadem's list of documents that he was going to be posing to this panel, today. So I am remiss, I did not provide these documents to my panel members to prepare them; I've only provided them with advance notice of the documents that the participants gave notice of.

So I apologize to Mr. Chamut, but he has been provided with the documents that Mr. Leadem said he would be putting to him, and right now Mr. Leadem is putting to the witnesses e-mails from 2005, that he's never had a chance to review before. So perhaps it just poses a problem with respect to the rules as with respect to fair notice for participants for witnesses as to the documents that will be put to them.

MR. LEADEM: And I do apologize, Mr. Commissioner. If there were something controversial about it, if it were something that the witness would truly be surprised by, I would have given them the opportunity. I failed to realize that Mr. Chamut would not be back for the implementation panel, and these documents were actually put in the

implementation documents, so I only came across them late in the day, and I afforded the witness an opportunity to review those documents here, and I apologize for not allowing that to transpire before now.

COMMISSIONER: Well, I think, Mr. Timberg, the way

- THE COMMISSIONER: Well, I think, Mr. Timberg, the way to solve this, if the witness would like more time to review the document and you would like time to consider the document, we can stand down to do that, if there's some issue around that. Mr. Leadem has explained what's going on here, and you have, I think, fairly raised your concern. I think I now have to leave it in the hands of the witness, who may have some concern, not having seen it before, or yourself, and that's fair. But I think, at the moment, I wouldn't stop Mr. Leadem from asking questions, given that the witness, Mr. Chamut, is not part of the implementation panel.
- MR. TIMBERG: Yes, I'm in agreement with that approach. I just wanted the Commissioner and the witnesses to be clear as to what documents have been provided to them and what they have not seen yet and that they're being shown documents from six years ago that they had not seen yet.
- MR. LEADEM: And certainly Mr. Timberg can raise this on re-examination. I'm simply wanting this to form part of the record in front of you, Mr. Commissioner. I'm not going to question Mr. Chamut as to his recollection of the events, save and except for the fact that it did trigger his memory with respect to some of the chasing after the implementation funds.
- Q Did it not, Mr. Chamut?
- Yeah, it did. MR. CHAMUT: I have to apologize, I'm continually amazed at how much one forgets over a period of time, because I -- when I first saw the press release announcing the 1.1 million, which came earlier in the day, I was wondering, "Where did that come from?" which is, I guess, indicative of how much I've forgotten, so I apologize for that. But I do, having seen the memos, I can affirm that I did -- obviously I was the author. I was involved in trying to cobble money together from various sources, and I think the money that we were able to pull together was basically from existing pots of money within the department, and they were -- they would have, in fact, been what

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46 47 was announced by the minister in June.

So I'm sorry for my lack of recollection, but I'd be reluctant to suggest that we break to spend more time to study it. I think we should just simply proceed.

- MR. LEADEM: All right. And, actually, those are my I simply wanted to tender those into questions. evidence, Mr. Commissioner.
- MR. WALLACE: Thank you, Mr. Leadem. This takes us to Mr. Rosenbloom for the Area D Salmon Gillnet Association and Area B Harvest Committee.
- Thank you. Gentlemen, my name is Don MR. ROSENBLOOM: Rosenbloom. I appear on behalf of Area D Gillnet, Area B Seiner. I have a number of questions for you.

CROSS-EXAMINATION BY MR. ROSENBLOOM:

Firstly, there has been discussion today and yesterday and, indeed, in the précis of evidence that has been provided by each of you in respect to the tension, as it was described today, internally within DFO between science, the scientists, and within the managers in respect to this issue of prescriptive approach or not in the application or implementation of the WSP.

We have heard evidence, given by you, Mr. Saunders, yesterday, and today for that matter, as to what you understand to be the resolution to that, what I'll call, internal debate. What I want to ask you, to ensure that it is clear on the record and the commissioner understands this, is that your comments, given in particular today wherein you say the prescriptive approach was really rejected or abandoned - let me put it that way - and that the approach that will be taken by DFO is an approach that appreciates the socioeconomic issues, the societal issues, and that there will be discretion that will have to be applied, on occasion, in respect to the implementation of the program.

My question is: What we heard from you today, Mr. Saunders, is that the consensus within DFO as you proceed forward from this point onwards? In other words, not simply your personal opinion, but can we rely on your comments as being DFO's position as we move or proceed forward?

- MR. SAUNDERS: I don't know that my words -- to the letter for, you know, could be used to describe the DFO position, but the words that I've used, and I think the words that Mr. Chamut and others have used to describe how the department will move forward are reflected in the Wild Salmon Policy, and so I don't know how to answer you other than that those are still my personal -- my personal interpretation of what's in the policy.
 - Okay. But can I assume that there is not an ongoing tension or debate within DFO in respect to that very critical question?
- MR. SAUNDERS: I don't know -- I mean, I think within the department there's still -- we're still in the process of implementation, so how that process that I described today about collaboration and consideration of social and economic, the actual on the ground reality of how those -- that process is realized is still a subject -- I don't -- I wouldn't use the word "debate", but just a subject of -- it's in a process -- it's in process, a process of development. And so I think the overall intent that I've described, absolutely, but actually how it material -- what it looks like on the ground, I can't describe it.
 - But I know Dr. -- Mr. Chamut wants to speak, but just before going to Mr. Chamut, what I'm trying to establish is, is there a continuing discourse over that very issue, what we called earlier today the tension, or is it a matter that, from your perspective, has been resolved?
- MR. WALLACE: Mr. Commissioner, this line of questioning seems to be more appropriate to put to the implementation panel, of which Mr. Saunders and Dr. Irvine will be a part. And also I would remind participants that the current regional director general, Ms. Farlinger, and her predecessor, Mr. Sprout, are also scheduled to speak to this topic.
- MR. ROSENBLOOM: Well, in fairness to my friend, Mr. Wallace, this matter has come up with this panel, it has been discussed with this panel, and there are members of this panel that will not be part of the subsequent panels that are struck in respect of this issue. So I have trouble understanding why there would be a restriction of asking this question when there's been testimony already in

respect to this question. My question is very simple: I simply want to know, for the record, whether the issue that was the subject of tension, as we described it earlier today, is, indeed, resolved in the minds of the current managers within DFO; in other words, the two of you that are present today?

In fairness, I do know that Mr. Chamut does

In fairness, I do know that Mr. Chamut does want to make comment. Why don't you go ahead, first, sir?

- MR. CHAMUT: Thank you, sir. With all respect to my colleagues here, I think it's a very difficult question that you're asking them to answer. And I think it's an inappropriate question to this group. It really the panel is here and will be quite delighted and able to answer questions about the policy and the process that we went through in developing it, and can explain the policy, but you're basically asking a question that would be most appropriately addressed by senior managers, and I think you're putting people here on the spot to speak on behalf of issues that really are not their purview.
- Are there comments from you, Mr. Saunders, about it, or do you agree with what Mr. Chamut just said?
- MR. TIMBERG: If I could just speak for a moment? I support the position of the Commission counsel that this is a matter that is more appropriately addressed to the RDG panel that's coming up in two days.
- THE COMMISSIONER: Well, let me see, I think Mr.
 Rosenbloom should be allowed to ask the question.
 If the witnesses feel that there is somebody else within the DFO that's more appropriate to answer it, they can say so, but I think he's entitled to ask the question.
- MR. ROSENBLOOM:

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- Q Your response, Mr. Saunders?
- MR. SAUNDERS: Yes, in my current position I spend some time on the -- I'm a member of the implementation team. I haven't been privy to or involved in discussions around the Wild Salmon Policy at the table -- at the operations committee table where tensions like that would be realized and discussed. To my -- I don't have enough experienced in the last year and a half with what

-- and, in fact, beyond that, to know exactly what the state of play is with that tension among sectors right now.

Q And can one assume that the question I'm raising should be directed to Ms. Farlinger?

MR. SAUNDERS: I think that would be appropriate.

- And when you testified earlier today of your perception of where things stood right now in terms of the approach for future implementation and the trade-offs, the economic issues, social issues and so on, one assumes that you founded your comments upon what was your understanding, or is your understanding of DFO positions at this point in time; is that fair to say?
- MR. SAUNDERS: It was founded on my experience to date within DFO, yes.
- Yes. And I'm intrigued by an exchange of e-mails between Mr. Chamut - and I will be directing this to Mr. Chamut - and Dr. Riddell, and it's an e-mail in particular of November the 15th, 2004, and it is document number 1 in our list, and I believe Mr. Lunn will have it before you in a moment.

Dealing with this very controversy -- if I can put it as controversy over how -- what direction DFO should take in interpreting future implementation of the Wild Salmon stock -- Wild Salmon Policy, and I want to read from Mr. Chamut's reply to Dr. Riddell, and you'll see that just under, "Brian", Subject: Concern for final versions", and I'm going to be asking you, Mr. Chamut, after I read this out into the record, whether you still subscribe to this, and I then will be asking Mr. Saunders whether you subscribe to what was Mr. Chamut's perspective back in 2004. Mr. Chamut said, at that time:

Brian: I am not surprised that this issue is arising as it is the most contentious and controversial choice that we have to confront with this policy. I am also not surprised that there are concerns that we have not got it right. If all we had to do was conserve the resource, our job would be easy. We would eliminate the fishery or restrict it in such a rigorous way that risks would be virtually eliminated. Our job is not that

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easy. We also have a responsibility to provide access to a valuable public resource that provides income and economic opportunity for individuals and communities. These two obligations are often in conflict and finding the right balance between the two is the policy issue that we have to confront in the WSP.

Mr. Chamut goes on:

The policy says that we are going to conserve conservation units, but acknowledges that some populations within a CU may disappear. I think most, but not all, would accept that as a reasonable trade-off, given that restoration of the population from straying within the CU is likely. The situation where we have a CU that consists of a single population presents a different policy challenge. Should the policy affirm that every CU will be maintained in every situation? It is my view that it would be poor public policy for the government to commit to maintaining every CU in every situation. I can foresee that there will be situations where there is a small population of sockeye which qualifies as a CU. The feasibility of rebuilding is very low. cost of doing so are excessively costly. my view, it is quite appropriate for governments to make a choice to forego the usual range of measures to rebuild that stock, and I think, as well, that we need to be honest about that intent in our policy. know that this notion is going to elicit opposition, but my recommendation is that it needs to be reflected in the policy.

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Now, let me stop there for moment. Mr. Chamut, do you still adopt your viewpoint as expressed back in 2004?

MR. CHAMUT: Well, if you go into the policy, you will see that there is, in fact, provision made, and I've discussed it on two or three occasions at this hearing, that there is provision for the minister to exercise some discretion with a CU in

particularly extenuating circumstances, I think is what the policy talks about.

This basically is described in my e-mail, that we have a CU, which is a single population, and I think generally we're probably talking about sockeye. It's in a situation where it's at low abundance, it's unlikely to rebuild, even in situations where you might close a fishery down. The likelihood that you could take measures to effectively close it to be rebuilt, the measures are expensive, unlikely to be successful, and in those situations I think it make sense to provide the minister with the responsibility to decide whether or not that conservation unit will be preserved.

This is included in the policy. But let me be really, really clear: it's not something where the minister is going to just arbitrarily decide to cast off CU's as they get into a red zone. The purpose of the policy is to rebuild them. But we do simply recognize that there are situations where it would be an unsuccessful attempt, it would be extremely expensive, and I think it makes sense to be clear that in these situations the minister may exercise that discretion, because it is a fundamental issue, and as I say, I think it's just a part of prudent public policy to have that provision in there and to be explicit about it. And that has been included in the policy, and I think it is an important part of it.

- Q Indeed, it is a fundamental issue. And my question to you was: Do you, firstly, do you still adopt this viewpoint as expressed in this e-mail?
- MR. CHAMUT: Yeah, I do, but again, the e-mail doesn't necessarily cover everything. I just want to be really clear that this is not something that would be done in a cavalier manner; it would be extremely rare and it would be something that would be in only very extenuating circumstances.
- Q That is very clear, from your evidence. My next question is: Do you believe that the viewpoint, as expressed in this e-mail, is reflected in the Wild Salmon Policy document?
- MR. CHAMUT: Yes.
- Q Thank you. You go on and say, in this very document in the next paragraph, three lines down,

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including a statement like point 9 in the
snapshot, "It is my intention" -- excuse me, it
starts:

costs and biological feasibility and choose not to maintain or rebuild a CU.

It is my intention to be clear that there

could be circumstances where we would assess

Again, that's consistent with what you are saying today; is it not?

MR. CHAMUT: Yes, it is.

- Q And consistent with, as you interpreted, the WSP? MR. CHAMUT: Yes.
- Q Thank you. Now, turning to Mr. Saunders, having heard what I have just read out of this e-mail of Mr. Chamut, is this also very consistent with the evidence that you have been giving in these proceedings of your viewpoint of where DFO is moving in terms of direction with the implementation?
- MR. SAUNDERS: Mr. Commissioner, I would hesitate to say that I adopt verbatim what is in Mr. Chamut's e-mail, but in the testimony that we just heard, I mean, I would agree that the -- what I believe to be the intent of that e-mail, Mr. Chamut has pointed out is in the document, and I would stand by what is in the document in terms of this situation of letting -- of not maintaining or restoring a conservation unit in extreme circumstances. I would add that I believe that that is a fundamental part of what I spoke to earlier in the day about having a process where social and economic -- the full -- when we set objectives, biological, social, economic, that the full array of possible options need to be on the table for those around the table to make a decision based on it.
- I'm glad you raised that, because in your testimony today, I believe, you spoke of the processes that you imagined would transpire if the matter went to the minister for review. And if I heard your evidence correctly, you spoke of a consultative process that would take place in advance of a ministerial direction or order based upon WSP; is that correct? Have I heard you correctly?

- MR. SAUNDERS: Yes.
- Q Is that consultative process documented in the WSP, or is it something that you take for granted would take place?
- MR. SAUNDERS: I don't recall if it's explicit in the WSP.
- All right. Assuming for a moment that it isn't in the WSP, can I have reason to believe you have some confidence that that would be the *modus* operandi if, indeed, the matter was moving towards the minister's office?
- MR. SAUNDERS: I think in almost all of our decision-making, that we are all, you know, there's an extensive consultative process around any decisions relating to resource management, so I, yes, I would believe there would be a consultative process.
- Q And Mr. Chamut wants to say something.
- MR. CHAMUT: Yeah, I would. This is fairly clearly expressed in the policy. There's a statement on page 29 that does reflect that in certain circumstances the minister retains this particular discretion. But I would also as you scurry for page 29 let me just direct you to the first page of the policy. It's called "The Wild Salmon Policy a Snapshot". It's on the back page of the cover. Oh, you don't have it.

If you go to a hard copy, it's called the snapshot, and look at item number -- the next -- the penultimate bullet.

- Q Yes.
- MR. CHAMUT: It talks about this particular issue:

The policy aims to maintain CU's but recognizes there will be exceptional circumstances where it is not feasible or reasonable to fully address all risks.

And then it goes down and talks about the discretion of the minister of Fisheries and Oceans, and the last sentence says:

Such a decision will be made openly and transparently.

And I think you can take from that that it will involve consultation and the minister will be

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making sure that it's not done with the stroke of a pen, it'll be done in an open, transparent manner, and I would have no hesitation in saying that there will be consultation.

- Q Can I assume, in the same theme, that in the event that a matter doesn't go the minister but that there is a, what I'll call, radical decision made by DFO, for example, to close a fishery because of reaching certain benchmark -- below certain benchmark thresholds, that there would also be a consultative process in advance of that decision being made by DFO managers?
- MR. CHAMUT: In the situation that you're referring to, there would be, as a first step, there would be what's called an integrated fisheries management plan that would be developed. As part of that plan, it would outline simply the department's proposals or intent to manage a particular fishery and a particular CU, and the process for developing an IFMP is very, very consultative. And as part of that, if there was a decision being made -- oh, sorry, if there was a proposal being made to close a fishery, it would be the basis of consultation with a whole host of interested groups, First Nations, recreational fishers, other interested parties, commercial fishermen, and that would be part of the integrated fisheries management plan, which is always sent to the minister for approval, and the minister has the responsibility for approving all of those plans.

So it would be done -- it would not be done by a local manager based on, you know, something that was seen as a whim, if I'm reading your -- if I'm interpreting your question correctly; it would be part of an IFMP, lots of consultation, final decision by the minister.

- Q Well, I may be the only one in this room that missed that. I didn't appreciate that when decisions were made under WSP that all matters would go to the minister for decision-making, and I obviously learn that from your evidence, now, and in the process of getting ministerial review and decision there would be consultation in all respects, in all cases, correct?
- MR. CHAMUT: Yes, sir. And if you have been involved with the commercial fisherman, I think you'll know that consultation with the department is one of

the activities that keeps them very, very busy during the winter, spring, fall and summer, and there's virtually no time for fishing these days, so --

Q Right.

MR. CHAMUT: -- there is a lot of consultation.

Q Believe me, I've heard that complaint from my clients, how time consuming that is. But I am, of course, speaking totally in the context of implementation of the WSP, as I raise these

questions with you, I think you'll appreciate

that.

For Dr. Riddell, in your précis of evidence, Exhibit 99, I believe, at page 3, you say, and I'll just summarize it, and please, if you don't recognize what I'm speaking of, I'm happy to lead you right to that document, but you say that if the WSP is not a policy to protect biodiversity at all costs, but a practical policy to ensure biodiversity, then my question to you is this: Then why does the science backup for this not include explicit analysis of the trade-off relationships between use, rate - in other words, harvest - and expected biodiversity loss, instead of just specifying a set of benchmarks or targets for conservation units? Do you understand my question?

DR. RIDDELL: Well, I think I understand your question, but your question really pertains to a very specific situation that would be taken into account in the management planning for how to manage those resources, and they could be between CU's, they could be between different species of CU's and that, and so within the broad national policy like this, we were trying to specify what would constitute a forward-thinking and precautionary approach to conserving genetic diversity in the long term.

Bu the trade-off that you're talking about are more appropriately considered within the specific confines of what the problem really is. It would be a very different outcome depending on how different the status of the conservation units that were involved were, what the differences in their productivities were, what your opportunities for implementing management change were, and that if you were down to a single management group,

then you have very limited options in doing
anything through fishing. You might have to do
something through enhancement or habitat
alteration.

So, I mean, there is such a combination of

possible scenarios in any of these examples that you couldn't really build them in. But it is -- what you're saying is clearly what would be done in the development of a management plan.

- Right. So it wouldn't be focused upon by the scientist, but it would be focused upon in the next phase where the managers had to grapple with the issue of reaching benchmark thresholds?
- DR. RIDDELL: That's correct. The science is describing how you define the spatial units, the conservation units, what are the benchmarks, establishing the assessment framework so that you have the data upon which to do the analysis, looking at the habitat and ecosystem issues, and really what you're referring to is when we start talking about wild salmon, too, I think is the phrase you're using, for Strategy 4, that is where we recognize that for ecosystem-based management and to really incorporate the interests and concerns of a particular community, you must have a more inclusive process. That's the intention of, I think it's, figure 8 in the document, to show that -- Mark actually described it as managing for egg to egg and that.

So you have the three information inputs that are largely scientific and that, not just from scientists, for from communities and a science background and, you know, historical data and that, but the actual consideration of all these trade-offs has to be within this particular management framework and the problem at hand.

- Q And so you would expect the managers to carry out the explicit analysis of the trade-off relationships?
- DR. RIDDELL: With the advice of science, because we would develop many of the --
- Q Yes.

DR. RIDDELL: -- well, not me anymore, but science would develop many of the models and they would provide advice on what type of models are appropriate for the trade-offs. An expert in that is going to talk to you later, probably, Dr. Carl

Walters, on that. 2 Thank you. 3 MR. WALLACE: I'm not sure, Mr. Rosenbloom, if you can -- it's hard, sometimes, for me to find the line 5 between the issues of management. Dr. Riddell 6 pointed it out here. I'm not sure if your 7 questions continue to go along the management and 8 the integration of the policy and the management, but that really is the subject matter of the 9 10 Strategy 4, which we'll deal with later. 11 MR. ROSENBLOOM: Well, I've concluded that question and 12 gotten my answer. I don't believe that I violate 13 Mr. Wallace's concerns in the next series of 14 questions I have. In any event, I see it is 4:30. 15 It may be an appropriate time to adjourn. 16 MR. WALLACE: Mr. Commissioner, I'm concerned about I'm not sure how much longer Mr. Rosenbloom 17 time. 18 intends to go, but I would -- I've asked the 19 participants if they'd be available until 5:00 today, and I would --20 21 MR. ROSENBLOOM: Oh, 5:00? 22 MR. WALLACE: -- prefer to carry on, if we may? 23 MR. ROSENBLOOM: I'm sorry, I thought it was 4:30. 24 happy to carry on. Thank you. 25 Dr. Riddell, let me ask you this: The sockeye 26 fishery that, of course, is the focus of this 27 inquiry, would you agree that that fishery is 28 largely dependent on a relatively small number of 29 large stocks? That's my first question. 30 DR. RIDDELL: The abundance is definitely dependent on 31 a relatively small group of large stocks, yes. 32 Secondly, isn't it true that some of the small Q 33 stocks that are the main concern for sockeye 34 biodiversity loss in the Fraser rear in smaller 35 lakes, like Cultus, that have no potential for 36 ever replacing losses if anything bad should 37 happen to the larger stocks; do you agree with 38 that? 39 DR. RIDDELL: Well, yes and no. 40 MR. WALLACE: Mr. Commissioner, this strikes me very much as harvest management and, subsequently, 41 42 Strategy 4 series of questions. The questions --43 we're talking here about the development of the 44 policy, the science that goes into protecting 45 biodiversity, the identification of CU's, the identification of benchmarks in those CU's, and 46 47 just what the structure is. In my submission, Mr.

1 Rosenbloom's questions are much better directed at later panels and later topics in this inquiry. 3 MR. ROSENBLOOM: Will Mr. Wallace refresh my memory: 4 Is Dr. Riddell present for the harvest management? 5 MR. WALLACE: I don't know the answer to that. 6 MR. ROSENBLOOM: Well, I take the position Dr. Riddell 7 has been testifying about these very matters. 8 Maybe, Dr. Riddell, do you know whether you are a 9 prospective panellist for the harvest management 10 panel? 11 DR. RIDDELL: The harvest management panel is immediately after Christmas? Is that that --12 13 following? I do not believe that I am on that 14 list, at this time. 15 MR. ROSENBLOOM: Well, that being the case, Mr. Commissioner, and in the context of the evidence 16 17 we've already heard from Dr. Riddell about 18 biodiversity, I don't quite understand why it's 19 inappropriate to ask this question of him, and 20 appreciating his background and his experience. 21 THE COMMISSIONER: Mr. Rosenbloom, if your questions 22 arise out of testimony that Dr. Riddell has given 23 so far, I think it's appropriate for you to pursue 24 in your cross-examination those answers to those 25 questions. To the extent that it opens up new 26 avenues which have not been testified upon, then I 27 think that's a different matter. So if your 28 questions do flow from testimony we've heard in 29 the proceedings here yesterday and today, I think 30 you're entitled to pursue those. 31 MR. ROSENBLOOM: Well, I don't want to belabour this, 32 and I don't want to take up a lot of time of the 33 Commission, but Dr. Riddell has been testifying 34 about biodiversity, the importance of preserving biodiversity, we've been speaking of SAR's and 35 36 COSEWIC and so on and so forth. I would have 37 thought that this line of questioning was very relevant to the issue of biodiversity and the 38 39 nature of the stock of the west coast and whether 40 it is of value to seek protection of all stock 41 within the Pacific sockeye community. SO I would have thought it was very relevant and that we'd 42 43 been talking about biodiversity for the last two 44 davs.

THE COMMISSIONER: I don't think I was denying you your

opportunity to ask the question, Mr. Rosenbloom.

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MR. ROSENBLOOM: No.

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THE COMMISSIONER: So I think you should put your
            question to Dr. Riddell. I'm sorry, I didn't make
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            a note of the last question you asked.
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            Wallace got up to object and I didn't make a note
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            of it, but --
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       MR. ROSENBLOOM:
                        Right.
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                          -- if you want to put your question
       THE COMMISSIONER:
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            to him again?
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       MR. ROSENBLOOM:
                        Yes, I would.
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       THE COMMISSIONER: Thank you.
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       MR. ROSENBLOOM:
                       Thank you.
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            Dr. Riddell, isn't it true that some of the small
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            stocks that are the main concern for sockeye
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            biodiversity loss in the Fraser rear and smaller
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            lakes, like Cultus, that have no potential for
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            ever replacing losses if something bad should
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            happen to the larger stocks?
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       MR. WALLACE: Mr. Commissioner, the question will be --
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            these questions will be appropriate for other
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            panels. We will be dealing specifically with the
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            Cultus Lake situation. We will be dealing with
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            the application of harvesting plans under Strategy
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            4 and under the harvest management sections.
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            goes way beyond the development of the policy and,
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            in my submission, this panel is not the place to
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            put those questions. If it's imperative that Dr.
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            Riddell be back, I would listen to why that might
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            be, but the Commission counsel has put together
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            the people they think are the appropriate
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            witnesses for these panels and have invited
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            participants to suggest others for those panels
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            where it would be more appropriate than this one.
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       MR. ROSENBLOOM: I'm in your hands, Mr. Commissioner.
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       THE COMMISSIONER: Mr. Rosenbloom, what I would
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            suggest, to get on with it - we're going to lose
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            the next 20 minutes in this debate - is for you to
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            reserve the questions that you had intended to ask
            on this particular point. I will hear from you if
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            Mr. Wallace and you cannot agree on whether or not
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            Dr. Riddell should be recalled to answer your
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            questions in the context of another panel that's
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            dealing more specifically with the area in which
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            you wish to pursue your questions.
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            convenient for you, now, to move onto another
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            topic, I would certainly not like to forget this
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            line of questions that you want to pose, but ask
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            you to move on at this stage.
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- MR. ROSENBLOOM: Yes, I will concede to you, Mr. Commissioner. I don't think Dr. Riddell is the only scientist that is coming before this tribunal that is able to answer the question, I just wanted to pick the brains of Dr. Riddell, who is obviously respected in the field and very, very experienced, and that's why I was directing the question to him, especially, when I learn that we may not see him again. But in any event, we will leave it for Mr. Wallace and I to talk out and possibly to recall Dr. Riddell. I'm sure that's great news for you, Dr. Riddell, but we may see you again, after all.
 - Yesterday, Mr. Saunders, I believe that you made some comment about the holistic approach to ecologically-based management, and you spoke, in particular, that implementation of the policy requires DFO to consider how many salmon is necessary to support the ecosystem; the bears, the eagles, et cetera this isn't verbatim you recall that portion of your evidence?
- MR. SAUNDERS: Yes, I do.
- Q I'm a little intrigued by that. Tell me this:
 How much -- when you say "as much as we understand
 it", surely this suggests that "we" as a society
 and "you" as DFO and the scientists, really don't
 understand much at all when it comes to that issue
 of feeding the ecological system in terms of bears
 and eagles, and so on, with salmon carcass?
- MR. SAUNDERS: I would say that we're in early days in sort of understanding. There's a lot to learn around structure and function of ecosystems.
- Q And you would agree with me in terms of eagles and bears and so on, there are huge, vast tracks of land in British Columbia where bears and eagles inhabit that aren't anywhere near salmon-rearing streams? Obviously?
- MR. SAUNDERS: I'm not sure that's obvious.
- Q Really?

- MR. SAUNDERS: I would say the larger proportion of the land mass has salmon in streams.
- Q Yes, where there are streams, but the point I'm also making is that the feeding that does take place is obviously in a window of, whatever, six weeks, seven weeks, annually, obviously?
- MR. SAUNDERS: I'm uncomfortable with going -- I'm -- in my current position, I'm not an active research

1 scientist --2 Q Right. 3 -- in the area of this. There are other MR. SAUNDERS: 4 panellists, perhaps, and others that are in front 5 of this commission, that can speak to it. I'm not 6 sure where you're going with the question, but... 7 I'm sorry, and Dr. Irvine does want to say 8 something. Yes? 9 DR. IRVINE: Well, I'll just make the comment that it 10 isn't, you know, the benefit of nutrients that 11 salmon bring into the watershed are not only 12 utilized in a six-week period. I mean, they 13 contribute to the food chain, and so they really 14 contribute right through an extended period of 15 time. 16 Yes. 17 DR. IRVINE: So it's not like they're only feeding on 18 the salmon. They feed on the organisms that feed 19 on the salmon. 20 But you do both agree, as you have said already, 21 Mr. Saunders, that we're at an early stage of 22 understanding that dynamic? 23 MR. SAUNDERS: I'm probably not a good person to state 24 how early or how much we know, but it is reality 25 resource management going forward that we need to 26 consider the requirements of ecosystems. 27 Dr. Irvine, you state in your précis, which is 28 Exhibit 103, in part you say that you will say at 29 this hearing that you had not seen -- you have not 30 seen any draft operational guidelines through the 31 WSP implementation team or Strategy 1 team. You're familiar with what I'm referring to? 32 33 DR. IRVINE: Yeah, I'm just trying to find it on the 34 page so I can see it in context. 35 Yes, I'm referring to Exhibit 103, page 4, bottom 36 of page 4, the last bullet. The last line of that 37 paragraph, which reads: 38 39 He will say that he has not seen any draft 40 operational guidelines through the WSP

You see that, now, sir?

- DR. IRVINE: Okay, so what we're talking about, here, is a different set of operational guidelines.
- 46 Q Yes. 47 DR. IRVIN

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DR. IRVINE: The operational guidelines that we've been

Implementation Team or Strategy 1 Team.

talking about over the last two days were really 1 the prescriptive measures that were -- that we 3 intended to develop in the early stages of the There is, within the policy, a mention of --5 probably an unfortunate use of the words 6 "operational guidelines", so we use that term 7 again, and as I recall, it was basically to 8 determine the process by which that buffer would 9 be specifically identified. So this is the buffer 10 between the CU lower benchmark and the point at 11 which a CU might be considered at risk of 12

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extirpation.

- And in respect of that matter, you have not seen the operational guidelines?
- I have not seen, to my recollection, DR. IRVINE: quidelines through the WSP implementation team, or Strategy 1 team, about the specific delineation of that buffer, that's true.
- MR. WALLACE: The doctor will be back to speak to this on the implementation of that.
- MR. ROSENBLOOM: Thank you very much.
- I want to turn, now, to the whole issue of funding and implementation, and without moving directly into implementation, but rather into the mindset of all of you who participated in the development of the WSP, as I read the précis of evidence of the four of you, one common theme, I suggest to you, is that there has been a real squeeze, financially, in respect to implementation or working towards implementation of this program and, in fact, even you, Mr. Chamut, in your evidence this afternoon, spoke of cobbling money together.

Now, this is a pretty critical issue for the long-term viability of this policy. Might I first ask you, and maybe to keep order here, I'll direct it, first, to Dr. Riddell, during your participation. What I don't see in my review of documents - and believe me, I'm not suggesting I've seen everything that's in the body of documents that have been provided to us - was there a point in time in the earlier stages of this initiative, where the minister was informed of what you believe you believed - "you", meaning you, collectively with DFO - believed to be the cost of putting this program together and implementing the program?

 DR. RIDDELL: Well, I think it's probably more appropriate that Pat comment on interaction with ministers, because I was a working scientist advising the west coast, and I seldom spoke directly to him. As an active scientist at the time, though, we did put active work plans together. You saw the memo where there was 400,000 from science, 200,000 from habitat, and so on, and at one point that accumulated to 1.1 million dollars directed to implementation of the Wild Salmon Policy.

What you may not understand in the way it was presented is they were internal funds reallocated to do work specific to the policy implementation, and that, so I really can't speak to information to the minister; I can only speak to what we had to work with. And it was not just money, per se, because we were developing new methodologies, and I would have to honestly say that a couple of us probably underestimated the time it was going to take, particularly for the conservation units. We had to actually do some of the raw map work, for example, which we had not been informed of until we implemented and that, but for the investment we had, I can't really comment any more on whether the minister was made directly aware.

- Yes. To move, then, to Mr. Chamut, then, and yesterday you said, and possibly a little bit in jest, you said, I think, 30, 40 million dollars, and then Mr. Wallace suggested to you that maybe it was facetious, but it sounded to me, from your evidence yesterday, that you are approaching -- you believe that this is going to be a very costly initiative to be fully implemented and effectively implemented; is that fair to say?
- MR. CHAMUT: Well, I think you're putting words in my mouth, to some extent. Can I come back to that point, because I want to deal with what you raised, first?
- Q By all means.
- MR. CHAMUT: I think the simple answer to your question is, no, the minister was not advised about implementation costs early on. Like when I was asked to come out here, there was never any discussion about the cost of implementing the Wild Salmon Policy. And, in fact, I recall very specifically that the discussions that I had had

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with others, the deputy regional, DG, my mandate in coming out here was not to come out and develop a policy that was going to require a large amount of incremental funds, because things are tight.

The intent was that we would be developing a policy that would be implemented using existing funds. And in my discussions, you'll see it in the witness statement that you referred to, my understanding is we went through this in talking to the colleagues that are, in fact, are here on this panel, was that there was adequate amount of resources to be able to implement the policy in a phase manner over about a five-year period. And it was understood that it was not going to be done quickly, and it was equally understood that if there was lots of money it would be done much more quickly with additional resources, additional people, that it would obviously speed things up. But the minister was not given any suggestion that it was going to take a large investment of money and, in fact, quite the reverse; it was expected the policy would be implemented with existing funds.

Now, I felt quite -- obviously I was surprised to recall the extent of work that I had done to try and develop some support for funding at the last -- at the end of the process, because that was done possibly the day before I retired, and so it was an effort to try and get a hold of colleagues in Ottawa and get them to provide money from their internal budgets, which I was able to do. And it is money that obviously helped implement the policy. To the extent that it has been implemented at this point, that money has been very important. I think if there was more money, we can do more, and if the intent is to try and accelerate the implementation, then I think money would definitely be something that should be considered.

I have no idea of how much money would be required, because I've been too long out of the system and I'm really not sure how much is -- has been dedicated, what the staff capability is, and how much more would be required. That would be something that is probably more appropriately answered by the RDG's.

I appreciate that. But is it fair to say, from

your response, that clearly in seeking money or obtaining money from the department you're actually robbing other programs of what otherwise would be their funding?

- MR. CHAMUT: No, I don't think so. At the time, and this is, again, is very difficult, because my recollection is reasonably fresh, just having seen the memos again this afternoon. But I seem to recall that the money that was -- that I called "cobbled together", there had been some new funds that had been given to the department, and some of those monies had been distributed amongst the sectors, and so that money was not necessarily robbing Peter to pay Paul; it was money that was available, and I just wanted to make sure that it was dedicated to the Pacific region to implement the policy, and there was small amounts -relatively small amounts from each of the sectors that went into it, and I'm reasonably certain that there was a source of money that had come into the department for, I can't remember exactly what the submission was about, but I think that that was the origin of the money.
- I will be corrected by the current panel members -- excuse me, the panel members who are currently working within DFO, but I believe that the deputy minister, Claire Dansereau, in her testimony at this proceeding, indicated that the upcoming fiscal year the department is being directed to draft a budget with a 10 percent reduction in their operating expenses. Firstly, I don't want to mislead the commission about that. Is that the understanding, for example, of you -- either of you that are currently with DFO?
- MR. SAUNDERS: There's a departmental review that goes across all government departments, is my understanding. I thought the number was five percent, but I could be wrong on that.
- Q All right. I believe I'll let the record speak for itself whether it was five or 10 percent, but the deputy minister spoke of this reduction. This surely imposes a greater squeeze than ever in terms of implementation of this program; is that fair to say?
- MR. SAUNDERS: It's not clear where -- I mean, I think, as Mr. Chamut pointed out, that at that time, as it is now, there are extreme pressures, budgetary

pressures, on all of us, every department, and certainly every sector within DFO. Where we have no understanding and need to, as I understand it, there is no -- there are no -- the only time we will understand where the cuts will be visited and how they will be done will be in the budget when budget is released in February. So we don't know how those -- that five percent will be visited on the department.

- But it -- obviously, the implementation of this program imposes an additional financial burden on what are all the multitude of other responsibilities that DFO carries out? No?
- MR. SAUNDERS: Can you say that again, please? Repeat the question?
- Q Yes. Simply that by -- that the implementation of this program, the WSP, is obviously imposing greater stress on the budget of DFO in terms of the multitude of other responsibilities it carries out?
- MR. SAUNDERS: Well, I think, at this point, we're still operating within the resources that Mr. Chamut reported, you know, roughly a million dollars that we are utilizing for the implementation of the policy. And we'll get into this in the implementation, but we learn as we go in terms of the number of conservation units, what it's going to take to assess them, developing business plans to go forward, so I don't know that I would answer -- I wouldn't say an unequivocal yes to your question.
- You'll agree that your department needs greater funding to do a full implementation of this program? It's being stalled, in part, by a financial limitation; is that not correct?
- MR. SAUNDERS: No. I would agree with Mr. -- you know, with the points that were made earlier, that it was always agreed that this would be a phased approach, that it could move faster. I think that your suggestion that it is stalled, I wouldn't agree with that.
- Or. Riddell, do you agree with what you just heard? I appreciate you're no longer with the department, but from your perspective?
- DR. RIDDELL: I'm still playing with the department hat on, on this panel, I believe, so...
- MR. WALLACE: Yeah. I invite you to ask that specific

question to Dr. Riddell when he comes back with his other hat on, which is --

DR. RIDDELL: Now I'm coming back, see.

- MR. WALLACE: But only on the impression of how it looks from today, from the outside.
- MR. ROSENBLOOM: I'm happy to direct that question to Dr. Riddell when I see you again, but I do want you to reflect upon the evidence you just heard from Mr. Saunders, whether or not the program is amply funded to this point in time and into the future, all right? I'll be asking you that question.
- Q Mr. Chamut, yesterday you gave some testimony that I was also intrigued by, and it is found in the transcript, yesterday's transcript - I appreciate obviously you have not seen that, but Mr. Lunn will put it before you on your screen right now and it relates to your comment, which is really "une passion", that there was an obvious need for funding for the WSP, but you spoke in a passionate way that you felt there was an incredible need within DFO for further funding in what you called ocean research, the marine environment and so on, and at line 31 at page 75 of that transcript, you're speaking generally there of how you feel there's a need for more money for stock assessment in the marine environment. And you spoke of the need for more forecasting to give an accurate picture of the number of fish that are coming back.

And if Mr. Wallace is again about to interject, let me make this point before Mr. Wallace makes his point: This is my last opportunity, I believe, to ask you, Mr. Chamut, about this question. You raise a question about a critical for funding for research that relates to the salmon of the Pacific coast, and if I don't ask this question of you now, I don't know when the record will ever be able to provide your opinion in amplification of what you said yesterday. Thank you.

MR. WALLACE: Mr. Commissioner, Mr. Chamut is not coming back, as far as we currently plan, that's true, but there will be discussions, again, on ocean research. We have a scientific paper on the subject. Maybe it's quicker to allow the question to be answered.

 THE COMMISSIONER: I think so, Mr. Wallace. Go ahead, Mr. Rosenbloom, you may proceed with your question.

MR. ROSENBLOOM: Thank you. I would ask, Mr. Lunn, enlarge line 31, around line 31.

Q You say, in part, Mr. Chamut, at line 31:

So if there was one thing that I think the commission needs to get some expert focus on is what I would call ocean research. And to really understand what's happening in the ocean, it would give, I think, as much -- have as much value to understand that as implementing the Wild Salmon Policy, in my opinion, and I hope that's something that's not going to be -- I'm sure it won't be overlooked, but I really think it's one of the key needs --

Because this is our only opportunity to elicit information from you, obviously this, in your opinion, is an important initiative that DFO should embark upon, assuming funds are available and, as you put it, you feel it is as important as the implementation of WSP; is that fair to say?

MR. CHAMUT: Yeah, I'm not going to repeat what's here, because it's very incoherent, but my main point is that ocean research is something that is very important to enhance our understanding of what happens to salmon, because once they leave the natal rivers they're basically gone for a period of time, and we really have a very poor ability to understand what's happening to them, where they're going and how many of them are actually going to be coming back, and it results in all sorts of surprises.

And I do know that the department has lost ship capability and, to some extent, research capability to be able to operate out in the North Pacific for periods of time. And I just -- I really wanted to flag it for the commissioner, it's something I feel very strongly about, and I was very cheered to hear that this would be done with a panel of experts, because I'm not an expert but I've been around the business long enough to know that this is one of the major kind of black holes that needs to be filled, and I know the

department is simply incapable of doing the work, 1 now, because of the lack of resources. And I 3 think the lack of adequate vessels, although I did see that some new research vessels are being 5 built. Hopefully, one of them will come to the 6 Pacific. But I just wanted to flag it, because I 7 do think it is important. 8 And so did I, by drawing your evidence of 9 yesterday back to the attention of the commission 10 today. It would be a costly initiative, wouldn't 11 it? 12 MR. CHAMUT: Yes, it's not inexpensive to operate large 13 vessels in the North Pacific over a period of 14 time, and I think that's what's required, and it 15 -- but it is -- I think the cost would be worth 16 the -- the investment would give you a good 17 return. 18 As equal a return as the implementation of WSP? 19 MR. CHAMUT: I think, yes. 20 MR. ROSENBLOOM: Thank you. I obviously have more questions, but I see it's five o'clock, thank you. 21 22 MR. WALLACE: Mr. Commissioner, I wonder if we could 23 start again tomorrow morning at 9:30 and 24 anticipate being here until 5:00? 25 THE COMMISSIONER: We can start at 9:45, tomorrow 26 morning, Mr. Wallace, if that's agreeable. 27 MR. WALLACE: Thank you. THE COMMISSIONER: And Mr. Timberg, were you going to 28 29 add something? 30 MR. TIMBERG: I'll speak to Mr. Wallace about when I 31 should have the witnesses for our second panel 32 available tomorrow. 33 THE COMMISSIONER: All right. Well, I'll let you and 34 Mr. Wallace sort that out. Thank you very much. 35 THE REGISTRAR: The hearing is now adjourned until 9:45 36 tomorrow morning. 37 38 (PROCEEDINGS ADJOURNED TO DECEMBER 1, 2010, AT 9:45 A.M.) 39 40 41 42

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

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Diane Rochfort

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Susan Osborne

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