

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.

Monday, November 29, 2010

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

le lundi 29 novembre 2010



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## Errata for the Transcript of Hearings on November 29, 2010

Page	Line	Error	Correction
ii		Brian Wallace	Brian Wallace, Q.C.
ii		Lara Tessaro's title is incorrect	Junior Commission Counsel
iv		James Walkus is not a participant	remove from record
iv		Musgagmagw Tsawataineuk Tribal	Musgagmagw Tsawataineuk Tribal
		Counsel	Council
21	3	DR. RIDDELL	THE REGISTRAR
43	32	Minister Higgins	Minister Regan
60	46	Tarps	TRPs
82	10		it

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No appearance B.C. Public Service Alliance of Canada

Union of Environment Workers B.C.

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B Harvest Committee (Seine) ("GILLFSC")

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Fisheries Society; Northern Shuswap Tribal

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Secwepemc Fisheries Commission of the Shuswap Nation Tribal Council; Upper Fraser Fisheries Conservation Alliance; Other Douglas Treaty First Nations who applied together (the Snuneymuxw, Tsartlip and Tsawout); Adams Lake Indian Band; Carrier Sekani Tribal Council: Council of Haida Nation

("FNC")

## APPEARANCES / COMPARUTIONS, cont'd.

No appearance Métis Nation British Columbia ("MNB.C.")

No appearance Sto:lo Tribal Council

Cheam Indian Band ("STCCIB")

No appearance Laich-kwil-tach Treaty Society

James Walkus and Chief Harold Sewid Aboriginal Aquaculture Association

("LJHAH")

No appearance Heiltsuk Tribal Council ("HTC")

No appearance Musgagmagw Tsawataineuk Tribal

Counsel ("MTTC")

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1 Vancouver, B.C. /Vancouver (C.-B.) 2 November 29, 2010/le 29 novembre 3 2010 4 5 THE REGISTRAR: The hearing is now resumed. 6 MR. WALLACE: Good morning, Commissioner Cohen. 7 the record, Brian Wallace, Commission counsel, and 8 with me is Lara Tessaro. 9 Mr. Commissioner, this morning we embark on 10 the Wild Salmon Policy, Part 1, of these hearings. 11 We have here this morning a panel of witnesses who 12 will speak to the development of that policy. And 13 this -- if I may just briefly introduce them to 14 you and to the participants. 15 On our left is Dr. Brian Riddell who will speak to the genesis of the Wild Salmon Policy, 16 17 and also to his involvement in its development. 18 To Dr. Riddell's left is Mr. Pat Chamut. Mr. 19 Chamut was the Assistant Deputy Minister of Fish 20 Management with DFO, and just before his retirement from DFO in 2005, he was a special 21 22 advisor with responsibility for the development of 23 the Wild Salmon Policy. To Mr. Chamut's left is Mark Saunders who was the Wild Salmon Policy 24 25 development coordinator from 2003 to 2005. On his 26 left is Dr. Jim Irvine who has been involved in 27 the Wild Salmon Policy forever. 28 Now, I wonder if we could ask to have these 29 witnesses affirmed, and then we'll proceed. 30 THE REGISTRAR: Witnesses, do you solemnly affirm that the evidence to be given by you to this hearing 31 32 shall be the truth, the whole truth and nothing 33 but the truth? Witness number 1, how do you 34 respond? 35 DR. RIDDELL: I do. 36 THE REGISTRAR: Number 2? 37 MR. CHAMUT: I so affirm. THE REGISTRAR: Number 3? 38 39 MR. SAUNDERS: I do. 40 THE REGISTRAR: Number 4? 41 DR. IRVINE: I so affirm. 42 Witness number 1, provide your full THE REGISTRAR: name, please? 43 44 DR. RIDDELL: Brian Riddell. 45 THE REGISTRAR: Thank you. Number 2? 46 MR. CHAMUT: Patrick Steven Chamut. 47 THE REGISTRAR: Thank you. Number 3?

47

THE REGISTRAR: Eighty.

MR. SAUNDERS: Mark William Lewis Saunders. 1 2 THE REGISTRAR: Thank you. 3 DR. IRVINE: James Richard Irvine. THE REGISTRAR: Thank you. 5 MR. WALLACE: Thank you very much. As a matter of 6 housekeeping, I've submitted to the participants 7 last week a list of a number of exhibits that I asked to have entered by consent that relate to 8 this panel, as a matter of efficiency, and we 9 10 received that -- well, there were no objections 11 other than for about four documents that the 12 Government of Canada objected to, so I will just, 13 if I may, ask the participants to go to the list 14 which Mr. Lunn has on the screen, and I take it 15 there are no objections to the other documents. So if I may ask that Exhibit 9 -- or, sorry, 16 17 document number 9 be given the next exhibit 18 number. 19 MR. LUNN: I think that belongs -- have the wrong list 20 on the screen. MR. WALLACE: Oh, yes, yes, sorry. 21 22 MR. LUNN: I've got it in hard copy here. 23 MR. WALLACE: Well, then, let me -- okay. So document number 9 -- how do we deal with this? 24 25 MR. BUTCHER: Bring a sample up. 26 MR. WALLACE: Oh, it has the same numbers. Thank you. 27 MR. LUNN: That's true, it does. 28 So this is document number 8 from the MR. WALLACE: 29 Wild Salmon Policy development list of proposed 30 exhibits. 31 THE REGISTRAR: That will be marked as Exhibit number 32 78. 33 34 EXHIBIT 78: Wild Salmon Policy discussion 35 paper, "A New Direction" dated March 1, 2000 36 37 MR. WALLACE: Number 13. 38 THE REGISTRAR: Seventy-nine: 39 40 EXHIBIT 79: Response to Consultations on The 41 Wild Salmon Policy Discussion Paper and the 42 Salmon Enhancement Program dated February 1, 43 2002 44 45 MR. WALLACE: Fourteen.

1 2 3	EXHIBIT 80: Wild Salmon Policy Draft, "A New Direction", dated February 20, 2002
4 5 6	WALLACE: Fifteen. REGISTRAR: Eighty-one.
7 8 9	EXHIBIT 81: Wild Salmon Policy, presentation to Policy Committee, April 5, 2002
10 11 12	WALLACE: Sixteen. REGISTRAR: Eighty-two.
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32 33 34	EXHIBIT 85: Email from Paul Sprout to John Davis dated July 16, 2003
35 36 37	WALLACE: Twenty-two. REGISTRAR: Eighty-six.
38 39 40 41	EXHIBIT 86: Memorandum to Paul Chamut from Regional Director General dated December 3, 2003
42 43	WALLACE: Twenty-three. REGISTRAR: Eighty-seven.
44 45 46 47	EXHIBIT 87: Memorandum to Regional Management Committee from Associate Regional Director General dated December 3, 2003

1 2 3		WALLACE: Twenty-four. REGISTRAR: Eighty-eight.
3 4 5 6 7		EXHIBIT 88: 2004 Report of Commissioner of Environment and Sustainable Development, Chapter 5
8 9		WALLACE: Twenty-five. REGISTRAR: Eighty-nine.
10 11 12 13		EXHIBIT 89: Memo to DMC Members from Michaela Huard
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35 36 37		WALLACE: Thirty-six. REGISTRAR: Ninety-three.
3		EXHIBIT 93: Canada's Policy for Conservation of Wild Pacific Salmon dated May 16, 2005
41 42 43		WALLACE: Thirty-eight. REGISTRAR: Ninety-four:
44 45		EXHIBIT 94: Memo from the Minister date- stamped May 27, 2005
46 47	MR.	WALLACE: Thirty-nine.

THE REGISTRAR: Ninety-five.

EXHIBIT 95: Memo from the Minister datestamped May 31, 2005

MR. WALLACE: Now, from -- there's one document from the Wild Salmon Policy implementation list of proposed exhibits, and that would document -- the document from last number 43.

THE REGISTRAR: Ninety-six.

EXHIBIT 96: Article in *Science Direct* by James R. Irvine

MR. WALLACE: And there are two documents which are not in Ringtail, but have been provided to participants. The first was provided to participants on November 12th and is a Powerpoint presentation entitled, "The Build-up to Canada's Policy for Conservation of Wild Pacific Salmon, 1980 to 2000."

THE REGISTRAR: Number 97.

EXHIBIT 97: Powerpoint presentation entitled, "The Build-up to Canada's Policy for Conservation of Wild Pacific Salmon, 1980 to 2000."

MR. WALLACE: And the final document, also provided to participants on November 12th with the speaking notes entitled, "Setting the Stage for Canada's Wild Salmon Policy, 1980 to March 2000."

THE REGISTRAR: Ninety-eight.

EXHIBIT 98: Speaking notes entitled "Setting the Stage for Canada's Wild Salmon Policy, 1980 to March 2000".

 MR. WALLACE: Thank you. Mr. Commissioner, with that out of the way, I would, as I mentioned, Dr. Riddell is going to start his evidence using a Powerpoint presentation and speaking to the genesis of the wild salmon policy.

MR. BUTCHER: This is Exhibit 97.

MR. WALLACE: Is this Exhibit 97? And the Powerpoint presentation is Exhibit 97. Thank you. Dr. Riddell, please.

#### EXAMINATION IN CHIEF BY MR. WALLACE:

DR. RIDDELL: Thank you. Good morning, Commissioner Cohen and others. It's my pleasure to introduce to you Canada's policy for the conservation of wild Pacific salmon. We have limited time, so I have taken the chore on of trying to give you some edited notes so we can go through this fairly quickly.

I was asked to address two topics. One is the build-up to the first draft in March 2000 of the Wild Salmon Policy covering the period 1980 to 2000, and also to comment on the introduction of how conservation units were developed. This will be a very short graphic presentation. The methods have been fully documented in Holtby and Ciruna, published in 2007 and submitted as Canada document 004-236.

I've also provided the accompanying text that Mr. Wallace has just referred to, and I should note at the very beginning that the presentation obviously reflects my personal perspective on the background, but the policy's development certainly benefited from the involvement of many others, some you'll meet this week, plus the input of many public groups and individuals that have participated in consultations leading up to the final draft in 2005.

I've summarized the build-up into three main topics. The period 1980 to 2000 was a period of major change in science and thinking about the importance of diversity in resource management, and by no means only in salmon. The second topic addresses the importance of diversity in Pacific salmon, sometimes referred to as the stock concept, as it naturally integrates the habitat and ecosystems into salmon production and its management. Simply stated, maintaining salmon diversity provides the greatest opportunity for sustaining salmon production.

And the final point then is how we managed this diversity. How should we manage diversity in Pacific salmon, given their geographic range and the number of streams throughout British Columbia and the Yukon? I'll show you the number of populations like that later.

So the first slide, talking about the 1980 to

2000 period, I refer to it as a chronology of change. This really was a period of significant accomplishments, new agreements, historic highs and lows in salmon production and changes in resource management. Ironically, the Wild Salmon Policy probably changes management outside of the Fraser sockeye more than in most cases. Fraser sockeye have had the stock concept well ingrained.

In my submission, the supplemental text is my perspective including 25 events that contributed to the development of the policy. I'm sure that other participants would add more and different examples. For example, I've not focused much on habitat management or the development of reference points and the use or application of precaution in setting our management objectives.

I have condensed my 25 bullets into the five summary points presented on this slide. So we're talking about the development of new ideas in conservation, biology and biodiversity, a real explosion in research in population genetics from both methods and types of analyses and applications in fisheries. It was a period of introspection and change in fisheries, and I'll just show you an example of this graphically.

I provide attachment 1 in my written submission to indicate the extent of change that actually occurred in the commercial catches and compared it with the numbers of salmon spawners since the mid-1990s. The lines are smooth trends of the actual data, but indicate the major change within the commercial fisheries occurred in order to sustain the number of salmon spawning, particularly after 1996 and onward.

This figure was prepared for the December 2004 draft of the Wild Salmon Policy, but was excluded from the later ones 'cause it really does not comment on salmon diversity. These are sums of all species in catches and rivers.

Even with the reduction in catches, there were significant concerns about populations of salmon that needed conservation. Some notable examples were provided in the text: Cultus Lake sockeye, Sakinaw Lake sockeye, B.C. Interior coho for the Fraser River, Rivers and Smith Inlet, sockeye salmon.

The final two points to really be made are

the major changes in agreements going from the international biodiversity convention to the establishment of the first comprehensive agreement on Pacific salmon, Pacific Salmon Treaty with the United States. I'd also note key scientific papers in conservation, major environmental events including the extraordinary El Nino event of 1982 and 1991 to '93. I think we're all aware of a heightened environmentalism that occurred throughout that period.

All of this occurred with a broadening development of Canada's salmon enhancement program and associated debates, listings of Pacific salmon under the *Endangered Species Act* in the United States, the development of wild salmon policies and recovery programs in Washington State, Oregon, California, and the heightened debate between users within Canada under the Pacific Salmon Treaty and for conversation, and increasingly vocal environmental concerns about biodiversity and ecosystems. These 20 years really were a significant period of change and reassessment in fisheries science.

The second point I want to refer to is the value of diversity in Pacific salmon. I call it the original value. The reason for that is that the distribution and availability of Pacific salmon to the First Nations and to the natural ecosystems were really the original value of salmon, but the non-Native commercial fishers developed very rapidly following the late 1800s, and by the early 1900s, the diversity of salmon was widely recognized by fishers and biologists.

The home stream theory developed, the stock concept developed. These were discussed for a long time before they were formalized in 1939. The genetic evidence for the importance of these to salmon conservation was not established until a Canadian scientist, Bill Ricker (phonetic), published in 1972.

Interesting question is then presented about given the importance of the stock concept and diversity in salmon, why did we really need to establish a new Wild Salmon Policy?

These are my personal summaries that I've used in a number of different talks and I used in lectures for universities. Why wasn't the stock

concept in Pacific salmon sufficient? Well, the diversity amongst populations was acknowledged. The concept was frequently misused or misunderstood, and in practice, stocks had become identified as management units, but the composition of diversity within the stock was frequently not protected or fully appreciated.

There is a question about how stock should be delineated, and I'll show you in a second about individual streams, and species that have been referred to as stocks in a prominent publication are not genetic lineages, unique genetic lineages. The Department can't manage in excess of 8,000 individual combinations of streams and species.

The stock concept also emphasizes differences between populations, but the underlying process, called adaptability, is equally important and really has been lost in discussion. The reference to Peter Larkin, 1974, is simply noting that this is not something that's new, that they had been discussed for a long period of time.

The final point was that as we started talking about diversity, instead of acknowledging the need to conserve it, the discussion frequently became about how much do you really need?

I think in the genesis of the Wild Salmon Policy, by the mid-1990s, the debate about diversity and the stock concept had led me to develop three major principles that really needed to be incorporated into managing and valuing salmon diversity, and to make one significant conclusion, by my mind.

These three principles I summarize here. I'll go through these briefly. The adaptation that we observe today really reflects past environments and conditions, but evolution as a continuous process, and you need to maintain the adaptability of salmon, and that's what's really critical for our future. The genetic lineages today are irreplaceable and they provide the basis of our current production.

Secondly, the interest in ecological and habitat diversity, these are the templates against which genetic diversity develops. So the tie between conservation units, habitats and ecosystems within the Wild Salmon Policy is very natural and is actually required.

Finally, maximizing production and diversity of salmon are actually consistent objectives. They are not inconsistent in that, and in management, this trade-off that people debate is really about the rate of use, not about total production. The rate of use is directly related to the quality of the habitat and the ecosystems and the rate of productivity.

So the conclusion that I had personally drawn by the early 1990s is that scientifically, there's no question that diversity in Pacific salmon is essential for their continuance and for sustainable benefits. Accepting these leads to the problem, then, of the third item: incorporating diversity and challenge. How do you delineate this diversity from management?

This brings us to a slide with a table. This is extracted from the publication that was also submitted by Slaney et al in 1996. In here, stock is rather misused and it's heightened by the scientific paper here. They identified over 8200 stocks by defining individual species in every stream as a stock. But these individual combinations are not unique genetic lineages of salmon and DFO has never tried to manage at this micro-scale. This leads us to a challenge, then, about how do you organize salmon diversity in a way that can be addressed in management?

These streams and species combinations are only the base of the spatial organization of salmon. Through time, these groups of local spawning clusters become isolated from other such groups through changes in habitat, the distance between them or the geographic isolation and random events.

This figure is taken from a paper I've also submitted, or I did in 1993, an inverted triangle specifically to make the point that the local spawning populations and individual pairs of salmon are the base of the triangle from which everything else is developed. The gradual isolation of spawning groups or populations and the development of adaptations within them, form the biological and geographic variation through space used to define conservation units within the Wild Salmon Policy.

There are three important points about the

definition of conservation units. The major premise of the policy is that the genetic similarity within conservation units is greater than between them. Secondly, that the diversity within the conservation units provides a means to recolonize local spawning populations or demes that may become extirpated within a conservation unit. Thirdly, that the spatial size and spatial scale of conservation units are very different between species, largely reflecting the specific species' genetic structure and their history.

I provide you just one example. This is the graphic distribution of even your pink salmon conservation units after the methodology of Holtby and Ciruna. You see for all of the spawning populations over which there's approximately 3000 streams in B.C. with pink salmon spawning, they can be condensed to only 13 conservation units that encompass all of their distribution in British Columbia. There are no pink salmon in the Alsek and there are no pink salmon in the Canadian portion of the Yukon drainage.

Fraser sockeye salmon only occur in the odd years, and so if this example was odd-year pink salmon, there would actually still only be 19 conservation units for all of British Columbia.

However, the opposite extreme is lake-rearing sockeye salmon with over 200 conservation units. They're typically localized to specific lakes and there could be multiple CU's within a larger lake. This discreteness of these population units has also been reinforced by a history of extensive efforts to transplant sockeye between lakes with essentially complete failure; for example, efforts to restore sockeye salmon into the Upper Adams River above Adams Lake in the Fraser basis. Essentially, each sockeye CU is irreplaceable.

Which brings me, then, to the final portion that will be largely graphical. How did we define conservation units? The definition in the box in the slide is directly from the Wild Salmon Policy itself. The citation is to the Holtby and Ciruna that has been submitted, in that, and so I'm going to show you a very condensed version of how all that work was done.

Well, we started from three basic premises, really. The natural special organization of

salmon are what we call networks of populations across varying habitats, and this represents the intra-specific diversity critical to salmon.

Secondly, there's a need to manage uncertainty, to be precautious in the future, and this is for a number of reasons. High uncertainty in the data, significant environmental impacts with unpredictable interactions and outcomes, and because of our expectations for climate change, what we -- sort of a phrase we use if the future isn't represented by the past, then we basically have a very limited base to work from.

Finally, the essential need, under the Wild Salmon Policy, is to protect adaptability in salmon, not just the current adaptations.

Well, we can break the methodology down into two fundamental steps. The first step is map-based without consideration of salmon other than their presence or absence, nothing about salmon other than that they exist in a particular geographic area. The second stage after the first is then we apply the biological and genetic attributes of salmon within each of these map areas.

So the first step applies to existing analyses to subdivide British Columbia into zones that are ecologically similar. Those analyses used river habitats, what we call fluvial freshwater habitats, near shore and marine habitats, and zoogeography which -- for freshwater fishes throughout British Columbia.

In combination, these ecological considerations determined what we call 38 joint-adaptive zones in British Columbia and the Yukon. However, they do not all include each species of salmon. I'll step you through some maps to show you more clearly how this comes about. After you have the 38 joint-adaptive zones where each of these salmon species are known to recur, these are referred to as ecotypic conservation units, and they would define one conservation unit at a minimum if a species existed within it. I'll just show you three slides here in terms of how we got to this end point.

This is a map developed by the Province of B.C. It defines B.C.'s freshwater adaptive zones. The slide also includes what are the critical

parameters there: similar climate, geography, hydrography and connectivity, common species and we look at the salmon populations within each. So this is simply map 1 that we start with from the Province of B.C.

Map 2 is the marine zones. So this has to do with the estuary and near-coastal conditions that the salmon would go out into. This work was conducted through the Wild Salmon Centre and done throughout the North Pacific. So this is the map for British Columbia only.

When you then use graphic information systems to combine all of these, we end up with the 38 joint-adaptive zones. All of this is done without any consideration of salmon at this point. So this is straight sort of zoogeography and environment.

Now, at this point, we then start looking at the biological attributes. So step 2, after determining the ecotypics you use, the joint-adaptive zones for Pacific salmon, the methodology then starts examining things like genetic population structure, life history variation, habitat, all to further characterize diversity within the species.

Through combinations and splits of these ecotypic conservation units, we determine the final conservation units for salmon that have been published now. The intent of all this work is to identify groups of spawning sites where fish are adaptively similar and hence are likely to be ecologically interchangeable.

To finish up quickly, this is the end of the first round. So after looking at all of the methodology, we come down to 435 conservation units accounting for all the information we have available on 8200 combinations of species and streams for the five species of Pacific salmon. The policy does not include steelhead or cutthroat trout at this time.

These are the currency used by species for British Columbia. As the text notes here, they will be increased by accounting for Chinook, chum and coho salmon in the Yukon drainage. I should point out further that the original delineation of the conservation units was recognized as a starting point, and they will be modified as new

information becomes available. So we may have more, we may have fewest (sic). The default was to maximize conservation of diversity if there was any uncertainty.

Finally, just to bring us to the Wild Salmon Policy, this summary slide has been used in many public presentations only to emphasize that strategies 1, 2 and 3, addressing the spatial definition of salmon, the assessment of habitat and consideration of ecosystem values, are all what we called information-gathering or organizational and they provide inputs to strategy 4. Strategy 4 is where local communities and users have input to the long-term planning and management of Pacific salmon for their -- within their local ecosystems.

That is the end of my talk so hopefully it provides you some insight into the policy.

- MR. WALLACE: Thank you, Dr. Riddell. I just have a couple of -- several questions from the summary of evidence which you have reviewed. There are a number of items in there that I would rather not have to spend the time here going through and have you say them again, so I wonder if I could ask you, with respect to your summary of evidence, if you can adopt that as being the evidence so far as it is definitive, subject, of course, to the questions which will be asked here.
- DR. RIDDELL: I can, yes.
- MR. WALLACE: Thank you. Mr. Commissioner, I wonder if Dr. Riddell's summary of evidence could be marked as the next exhibit, please.
- DR. RIDDELL: Marked as 99.

EXHIBIT 99: Summary of evidence of Dr. Riddell

- MR. WALLACE: Thank you.
- Q Dr. Riddell, can you pinpoint your first involvement with the development of the Wild Salmon Policy? Is that your paper in 1993?
- DR. RIDDELL: Well, I think if I was to identify a particular starting point for the actual policy, yes. My interest in population genetics in salmon goes back to my original thesis work.
- Q And were you involved in the initial consideration of developing the policy itself in the late 1990s

1 and up to 2000? 2 DR. RIDDELL: I was

- DR. RIDDELL: I was involved with all of the policy with the exception of September 2001 to April 2004 when I was in secondment to the Pacific Fisheries Resource Conservation Council.
- Just in a very general way, can you tell the Commissioner how -- first of all, may I suggest that it's the Commissioner that is important as opposed to anyone out here. Thanks.

Can you generally describe how, in an organizational management sense, the policy was initially developed in -- I gather there was consultation early on in the late '90s. What was the first manifestation of a draft?

- DR. RIDDELL: Well, Mr. Commissioner, the first manifestation of a draft was the March 2000 Wild Salmon Discussion Paper. It was one of a number of policy papers being written by the Department in the late 1990s and that (sic). And it really came about as an initiative through the salmon subcommittee of what's called PSARC. At that time it was the Pacific Science Advisory and Research Committee, and largely driven by science members of Science Branch, some people in the Salmonid Enhancement Program and in Fish Management. So it was actually started largely as a science paper, part of the development of the provincial policy papers.
- And that draft was taken out to public discussion at that time?
- DR. RIDDELL: Yes. It was taken out for a set of discussions over, I think, about three months. Yeah, throughout the spring of 2000.
- Q And can you describe those discussions beyond that? Who was involved?
- DR. RIDDELL: Well, Mr. Commissioner, they were public consultations. They were both publicly notified so that you had as many people as wished to comment came. There was a parallel process with the First Nation groups. That was maybe more structured and that. In terms of how it was organized, I'm afraid I don't have much of a recollection of that at this point anymore.

There were extensive notes taken. There was a company hired to document what was said so that we could ensure that we captured all the comments, and there was an extensive document written

following the public consultations by this company and provided back to the Department. The Department then followed up by providing a response from that back to the public people that contributed.

- Now, what was the state of development, do you recall, when you left DFO in 2001 to join the Pacific Fisheries Resource Conservation Council?
- DR. RIDDELL: Well, by the -- sorry, Mr. Commissioner, by the time I left, we were really just getting the report from Dovetail Consulting concerning all of the comments and what, really, we needed to address in revisions to the first draft discussion paper. I don't think that we had any significant new paper distributed at that time. We had gone back and started to talk to community groups about what we had heard and what we would take into account in review, but about that time is when I left in September 2001.

MR. WALLACE: Thank you.

- Q Mr. Chamut, at about this time in 2001, am I correct that you were ADM of Fish Management in Ottawa?
- MR. CHAMUT: Yes, that's correct.
- Q And that's when you became involved in the Wild Salmon Policy, or does your involvement go back earlier than 2000?
- MR. CHAMUT: Well, if we're talking about the Wild Salmon Policy in the context of the document that was finally released in 2005, my -- you're correct in saying that my first exposure to it was in 2001. I'd had a lot of experience in sort of dealing with operational issues associated with wild salmon, but in terms of actually developing a Wild Salmon Policy along the lines of what was being proposed in the region, my first exposure to it was in 2001 when it came to headquarters for a review in -- as most policies would, it was reviewed within the Departmental Management Committee.

So my involvement was as the representative of the Fisheries Management Sector to look at this policy and provide comments back to the region along with every other sector that was involved in the department. They would similarly look at it and provide comments.

Q Thank you. In 2002, you did an external -- you

chaired a committee doing an external review of the 2002 sockeye fishery; is that correct?

MR. CHAMUT: Yes, that's correct.

- And that -- that report is filed now as Exhibit 83 dated March 1st, 2003. Perhaps we can just turn to that, and particularly page 39 of that document which is on the screen. At that time, you called for the implementation of -- for the development of the Wild Salmon Policy and particularly the development of implementation guidelines on resource management, habitat management, aquaculture and enhancement for that policy, correct?
- MR. CHAMUT: Yes, that's correct. I think it was fairly clear given the controversy that was associated with the conduct of the fishery in 2002, that a lot of it stemmed from either disagreements about conservation objectives or just a lack of understanding of what the Department was trying to achieve. I think myself, as well as other members of the Department who were involved in this review, along with stakeholder representatives, I think everybody felt that a lot of the conflict could in fact be resolved, or at least addressed, if we had a wild salmon policy that was fairly clear about what our objectives were for protecting diversity and how we were going to go about that.

At the time, the thinking that was current at the time that this report was written was that we needed a policy that would be supplemented with operational guidelines, and those operational guidelines I think were in the context of what I would call decision rules, decision rules that would basically provide guidance as to how decisions would be made with respect to management.

That was certainly the direction that was being adopted in 2003 when this document was actually prepared. I would add that subsequently the policy that was -- the Wild Salmon Policy that was finally developed took a different approach. Instead of developing detailed guidelines, it instead took an approach of developing a broader framework that set out objectives to be achieved, strategies that would be followed, and it did not include detailed guidelines. I can certainly

 provide additional information, if the Commission would like, as to what caused that change in position to be adopted.

Q Well, indeed, Mr. Chamut, we will get to that, because your involvement of course became much more hands on as you went on. So you can speak to that as well.

But I -- just can you expand a little bit on just what you had in mind with the operational guidelines? Did you expect the policy itself to have detailed limits on various activities and managing?

MR. CHAMUT: Well, I think at the time, the whole notion of implementation guidelines was, to some extent, a little bit vague. I envisioned it as something that would provide more explicit guidelines as to exactly how the Department would manage in differing circumstances, and I used the terms "decision rules" earlier, and I thought that probably these guidelines would include decision rules that would be more prescriptive or deterministic, that would actually provide some fairly clear guidance that -- how the Department would manage in differing circumstances.

So if a particular circumstance arose, then there would be guidance in these guidelines that would help define what action the Department would take. That was the thinking at the time.

And am I correct -- and I'm looking in particular at the briefing that was provided to the Departmental Management Committee in May of 2003, which is document number 18 which I think was subsequently almost immediately thereafter provided to the Minister, in which the finalization of the policy -- it was identified that the finalization of the policy has been bogged down with the difficulty of translating the principles into practical operational guidelines.

If I could take you to document 18, I think that's at page 5. I'm sorry, I have the wrong document number.

- MR. WALLACE: Mr. Lunn, if I could ask you to go to document 19, which has not been marked as an exhibit. It's a June 23rd deck of 2003.
- MR. LUNN: Page 5 did you say?
- MR. WALLACE: Page 5.
  - MR. LUNN: Sorry, it looks like all of the pages are

oriented differently. Is there some text you'd like me to go to specifically?

- MR. WALLACE: Thank you. First of all, can we go to the cover page, or are we going to get...
- Mr. Chamut, I understand this is a briefing to the Minister in mid-2003 dated June 23rd. Do you recall this briefing?
- MR. CHAMUT: To be honest, no. I attended -- in my capacity as the Assistant Deputy Minister for Fish Management, I attended hundreds of these things, and I do not recall specifically attending this briefing. I would undoubtedly have been there, and I don't want to suggest that I wouldn't have been. I just don't have any immediate recollections of what the debate or what debate would have ensued or what sort of comments were made at the time.
- Just at page 5, I think it's the -- not so much the document, Mr. Chamut, that's important, it's the why -- to get a handle on why directions changed over the course of it, and I want to see whether or not this indicates one of the reasons why the operational guidelines you had in mind initially may not have occurred.

So on page 5 of this document, the reference says that -- the bullet the second from the bottom [as read]:

Finalization of the policy has been bogged down by the difficulty of translating the principles into practical operational guidelines.

Do you recall that issue as being a motivator ultimately to resile from the use of operational quidelines?

MR. CHAMUT: Well, I think what that comment infers, and fairly directly, is that the policy was not moving ahead quickly. By this time, the region had received the report that was referred to earlier that was the review that I did of the 2002 fishery which recommended the Wild Salmon Policy be resolved and finalized by December 31st, 2003.

Clearly this flags the challenge that the region was having in actually translating the principles into operational guidelines. I think the reality that they were coping with was,

firstly, it's very difficult to develop operational guidelines until one has defined how many conservation units you're dealing with, how big they are, and issues of that nature that basically made it very, very challenging - in fact I think impossible - to be able to come up with operational guidelines that would be practical and realistic and would actually allow fisheries management to proceed.

And I think the second issue that this probably implies, as I realized at the time, there was some disagreements between people in the Science sector of the Department that were, at this time, taking the lead in developing the Wild Salmon Policy, and fisheries managers who were coping with the challenge of having to take the Wild Salmon Policy and then be able to use it or operate fisheries within its framework. I think they were -- it was very difficult for the two groups to get together and actually agree on how to go about developing these guidelines.

So it was a very difficult task, given the rather rudimentary nature of the conservation unit in terms of the number of them, and I think that that certainly — those considerations were obviously very much instrumental in influencing the change that was adopted in the development of the Wild Salmon Policy in 2004.

- MR. WALLACE: Thank you. I realize, Mr. Commissioner, I did not invite Mr. Chamut to consider, and if he wished to adopt the summary of evidence. I'm just going through some of the comments in it.
- Q I wonder, Mr. Chamut, you have reviewed the summary of evidence which has been provided to participants?
- MR. CHAMUT: Yes, I have.
- Q And, as you can see, I'm asking some questions about particular areas in it, but subject to the questions on it that I've been putting to you, do you adopt that summary as your evidence?
- MR. CHAMUT: I am prepared to adopt it, but I do want to indicate that there are probably some areas that I would probably amplify or add a bit of context as I go through it, and I would do that in my oral questioning.
  - That's perfect. Thank you very much.
- 47 MR. WALLACE: Mr. Commissioner, I wonder if, then, Mr.

Chamut's summary of evidence could be marked as 1 2 Exhibit 100, I think. 3 DR. RIDDELL: It's 100. 4 MR. WALLACE: Thank you. 5 6 EXHIBIT 100: Summary of evidence of Mr. 7 Chamut 8 9 MR. WALLACE: 10 Now, in your --11 THE COMMISSIONER: Mr. Wallace, just going back, the 12 document number 19 that you referred to a moment 13 ago, is that to be marked as an exhibit, or no? 14 MR. WALLACE: Mr. Commissioner, I wasn't sure that Mr. 15 Chamut could identify it sufficiently. I will 16 look at having it marked. The point was simply to 17 identify a view about a conflict that existed at 18 the time, and I think Mr. Chamut has addressed 19 that orally. For completeness, we will mark the 20 exhibit, but we'll come back to that. 21 THE COMMISSIONER: Should it be marked for 22 identification at this stage? 23 MR. WALLACE: That would be -- well, if we're going to do that, then let me -- Mr. Lunn, I wonder if you 24 25 could -- let's just marked this as an exhibit for 26 identification for the moment, please. 27 THE REGISTRAR: To be marked M for identification. 28 29 MARKED M FOR IDENTIFICATION: Policy Issues 30 for Management of Wild Salmon, June 23, 2003 31 32 MR. BUTCHER: Do you have the Ringtail number? 33 MR. WALLACE: Yes. 34 MR. LUNN: I've got it here. 35 MR. WALLACE: You're showing off, Mr. Butcher. 36 001421; is that correct? 37 Mr. Chamut, at page 3 of your summary of evidence, you make a comment, and I'll just quote it, that 38 39 you believe that sockeye would be the most 40 complicated CU's to define because of the unique 41 biology of the sockeye. Am I correct that that 42 relates to the diversity that Dr. Riddell was 43 speaking of earlier? 44 MR. CHAMUT: Yes, that's right. I mean, the other 45 species are -- have far less specificity, and so I 46 knew that sockeye were going to be the most 47 challenging, and I think Brian Riddell's

presentation amply demonstrated that. Would you also say that sockeye would

- Would you also say that sockeye would be among the most complicated to manage?
- MR. CHAMUT: I'm assuming your question is they'd be the most complicated to manage under the Wild Salmon Policy, and the answer would certainly be yes.
- Yes. And that is -- I take it that's because of the -- there are so many individual stocks and the fishery is essentially a mixed-stock fishery?
- MR. CHAMUT: Yes, that's correct.
- MR. WALLACE: Mr. Commissioner, I'm about to go from 2003 to 2005, and I wonder if this might be a convenient time to take a break?

THE COMMISSIONER: Yes. Thank you.

THE REGISTRAR: The hearing will now recess for 15 minutes.

(PROCEEDINGS ADJOURNED FOR MORNING RECESS) (PROCEEDINGS RECONVENED)

THE REGISTRAR: Order. The hearing is now resumed.

EXAMINATION IN CHIEF BY MR. WALLACE, continuing:

Thank you. Mr. Chamut, I wonder if I could take you back to your -- to Exhibit 83, the External Review Committee report and page 44 of that report. There the committee chair made a recommendation, we've talked about the guidelines. Then the last sentence of the recommendation:

This policy will provide a framework for defining conservation objectives for naturally spawning salmon and will include a direction for resource management, conservation units and reference points, habitat protection enhancement and aquaculture.

Sorry, and the paragraph just ahead of that, preceding that recommendation, you identified that there's a need for development of a policy on wild salmon that explicitly defines conservation objectives for naturally spawning salmon.

Now, would you agree that in the final development of the Wild Salmon Policy that

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explicit definition of conservation objectives was not carried through?

- MR. CHAMUT: The final policy doesn't provide specific numerical objectives defining conservation. it does is lays out probably the most important point, which is that the department will conserve conservation units, but it doesn't say exactly at what level or how much would constitute That is left -- those decisions are conservation. -- would obviously have to be developed once conservation units were defined and biological status had been assessed and the process that was eventually adopted under Strategy 4 had been completed. But if you want me to say that the Wild Salmon Policy does not provide specific conservation objectives in the sense of numerical values, you're right.
- Q Am I correct that was part of the debate in developing the policy is whether or not they should be prescriptive units and whether conservation units should entail in terms of management and ultimately the idea of having prescriptions on conservation outcomes was omitted from the final policy.
- MR. CHAMUT: Well, we -- you've mentioned the evolution of the policy and this report that you're citing here was written from about January through to March in 2003 and the thinking at the time was certainly along the lines that we would end up with a policy plus implementation guidelines. In the time between writing that report and including that recommendation and actually becoming personally more involved in the development of the policy, the thinking amongst the group that was actually responsible for pulling it together, I think, did evolve and we had a lot of discussions, a lot of debates around the table. And I think we recognized and I think we would all agree that the policy that is put in place deliberately chose not to be deterministic.

And there are a variety of reasons for that. Notably, I've mentioned the lack of scientific information that we -- at that time about conservation units, would constrain the ability to develop those guidelines. I think secondly there was a recognition that trying to be deterministic in the policy was probably not the most preferred

is that right?

-- was not the preferred approach because we've had experience and I could, in fact, cite the 2002 fishery and give you some examples if you'd like, but we had experience that demonstrated that trying to forecast each and every eventuality that could happen in a fishery and then define decision rules to cover those eventualities is -- it's pretty well impossible to do.

The -- there's an awful lot of things that happen in the fishery and if you have prescribed a particular -- or a single approach of what you're going to do in a particular circumstance, that may actually reduce the ability to innovate solutions and to come up with more optimal solutions. think the ability to be able to forecast each and every eventuality and the ability to then prescribe decision rules governing it was thought to be just simply a wrong-headed approach for us to take. And the policy as I'm sure if you -- for those who read it, is very clear that that whole issue of being deterministic was considered and was rejected because it was felt that it was not the appropriate -- an optimal approach to take. And is it fair to say that that -- there was an initial view in 2003 that -- for a more deterministic approach, but that it evolved by 2005 but the debate was still on, am I correct, in 2005? It wasn't until 2005 that it was resolved;

MR. CHAMUT: I don't recall the specific time. I think it was earlier than that. I think within -- at some point in 2004 the group that I was working with concluded that trying to develop all of these resource or guidelines that we're discussing was simply not the appropriate course of action to take.

And I think the other factor too is that they could be enormously complicated. It would take a large amount of time and effort, and I think if the objective which I think we all agreed to was to try and develop a Wild Salmon Policy that could be in place and could start to be implemented in 2005 and thereafter, if we waited until we had all of these guidelines, then I think the policy in my opinion would probably still not have been adopted at this point in time. And I think having the policy that we put in place which does provide

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very good guidance to the department about what we're going to conserve and how we're going to go about it, I think provides a good starting point and frankly, I would still, if I had the choice again, I would certainly not opt for taking the extra time to develop these guidelines, because I think it would have worked to the disadvantage of the resource and the department and all of those who depend on it for their livelihood.

- Mr. Chamut, do you remember any other involvement you had in the development of the policy while you were ADM and before I think it was late 2004 when you -- no, the Spring of 2004 when you moved to -moved to Vancouver on that project?
- The -- my -- I left Ottawa on December MR. CHAMUT: 31st, as I recall, 2003 and I arrived -- so essentially January 1st in 2004 and I took up my responsibilities to work on Wild Salmon Policy at that time. Most of my involvement in the Wild Salmon Policy had been as -- in reviewing the draft policies that had come forward from the region, which was, I think -- I'm always difficult on these dates, but around 2000, plus the second one that came through in 2002, I was reviewing that, and I'm pretty sure that I would have had a hand in being involved in preparation of briefing material for the minister. And I was searching my own recollection as to my involvement in the deck that you had -- that we had discussed previously, the one that went to, I think, for briefing the minister in June of 2003. It wouldn't surprise me if I had a hand in helping to frame the guestions and laying out some of the approaches. But that's -- I won't say speculation. I don't really recall it, but I'm reasonably certain I would have had a hand in that.
- MR. WALLACE: Thank you. Perhaps to just -- if we can just -- sort of to tie that loose end off, Mr. Commissioner, this is Exhibit N for identification?

THE REGISTRAR: That's correct.

#### MR. WALLACE:

Q And that's a deck marked June 23rd, 2003 and I note that the adjacent Ringtail number appears to be -- and a fax cover sheet to Mr. Chamut of July 15th, 2003, that document 20 in the development book. And the third document which seems to tie

- those together are comments on a briefing note 4-U, I think, Mr. Chamut, and this is document 2 in the development book of documents. And it appears to me that the -- what occurred here is the deck was produced, then -- in Ottawa by you or your staff, provided to the region and the cover sheet and the briefing note to you was providing it back to you for your briefing of the minister; does that assist?
- MR. CHAMUT: I can't really -- I can't really be sure. The thing that I'm puzzled by is the date on this particular note which came from the region was July the 15th. It's at the top.

  O Yes.
- MR. CHAMUT: And I believe that -- and from my recollection of the document you put up recently, just a couple of minutes ago, the deck that was used for the minister, I think it was a June -- a June date, so I'm just a little puzzled about the genesis of all this.
- MR. WALLACE: Okay. All right. Well, perhaps we can run this to ground in due course, Mr. Commissioner. I wonder then if the -- the briefing note which is document number 2 could be marked as the next exhibit for identification and the fax cover sheet as a third.
- THE REGISTRAR: The briefing note will be marked as for identification N Norman, and the fax cover sheet O.

EXHIBIT N FOR IDENTIFICATION: Briefing Note for the Assistant Deputy Minister, Fisheries Management

EXHIBIT O FOR IDENTIFICATION: Fax cover sheet

- MR. WALLACE: I note, Mr. Commissioner, that all of these documents are provided by DFO in their Ringtail production, so we'll try and get the authors for it.
- Q Mr. Chamut, the -- am I correct that then the debate about the definition of conservation and the prescriptive nature of it continued into 2005 and I'd just refer you to Exhibit 92, which is document 33 in the development list. Can you identify this as an email that you sent to people

working on the Wild Salmon Policy issues in March of 2005?

MR. CHAMUT: Yes, that's correct.

- Q And here you identify the two options for the definition of conservation. Am I correct that this reflects the same debate that we were just referring to, the need for whether or not there should be prescription or whether or not the conservation should be a purely biological question with the management issues left for another process?
- MR. CHAMUT: No. I'd say you're -- it's entirely wrong.
- Q Oh, okay.

MR. CHAMUT: This -- see, you're pulling, with all respect, you're pulling documents out, you know, back and forth and I think -- and that's fair enough, but I think you have to recognize that there's a timeline that's being followed here, and as we went through the development of this Wild Salmon Policy beginning from my involvement in 2004 through to the finalization, it was in my view a remarkable process because different people came in with different ideas, different understanding, different thinking about the issue and we worked together as a group and there were lots of disagreements, as you'd expect in developing a policy like this.

But we did collectively come up with a document that we all agreed represented what we felt a Wild Salmon Policy should be, and through that process, people's views evolved. And I think what you see here is not so much a debate about guidelines versus no guidelines or prescription versus more flexible strategic approach. This reflects a basic discussion about how you define conservation and how that pertains to sustainable use.

And it follows on the consultative process that we engaged in in -- beginning in December of 2004. We received an awful lot of comments from a lot of different groups that are involved or interested in the fishery and one of the concerns that was expressed was that there was seemingly a conflict in the policy between conservation and use. And that's not surprising, because that conflict has gone on since, you know -- for

thousands of years, in my opinion. So what we were trying to do in March of this -- when this was written was to set -- come to ground as a group on what -- how we wanted to define conservation and how we wanted to deal with sustainable use.

And the two alternatives here, basically were for discussion. The first option that is on the screen was that we would have a conservation definition that excluded sustainable use. And the other option was we would have a stand-alone definition of conservation and a separate definition of sustainable use. And based on the comments that we received from a variety of groups, we felt that for clarity and to make absolutely clear in the policy that conservation is the primary objective of the policy, we adopted option 1 after discussion. And we had a separate definition for conservation that focused only on conservation being required or conservation being defined in terms of protecting or maintaining genetic diversity, without any reference to use. And then sustainable use was a separate definition, was included that made it clear that sustainable use is, you know, is essentially consumptive activities that would not adversely affect the, you know, future generations and the like.

So it clearly was, I think, a fairly important discussion. It's a fundamental issue and it's one that we wanted to be absolutely clear that conservation was the top priority and it wasn't going to be compromised for meeting sustainable use objectives.

- Thank you. The third item under the principles of conservation and the option that was accepted, resource management decisions will consider biological, social and economic benefits and costs in an open and transparent and inclusive process, is -- now, that was then where the debate -- so this policy was a biological conservation policy, but the questions of how you take the next step to sustainable use was to be part of a -- this open process?
- MR. CHAMUT: No. The policy provided guidance on this. I think, as I say, this is a very fundamental point. What we said was that conservation by

defining it in terms of protecting genetic diversity, it made it quite clear that conservation was the primary objective of this policy. But when you read the policy, you'll see there are also principles in there that talk about — I think the fourth principle was sustainable use. We wanted to have a policy that protected the genetic diversity of wild salmon but at the same time, we also wanted to ensure that there was an opportunity for sustainable use. I mean, that we wanted recognized within the policy.

So we defined conservation as we did. We made it quite clear that where a conservation unit is so-called in the red zone, and the red zone is a level at which the conservation unit is at risk, that at the red zone, the primary almost exclusive — I can say exclusive consideration for dealing with that conservation unit would be biological, in other words, what's necessary for protecting that conservation unit.

As you move up from red to amber to green in terms of the biological status of the conservation unit, then the consideration -- you know, there's still biological considerations for protecting the conservation unit, but as you get into a unit that's green, which means that it's abundant, that it's in good health, then the sustainable use and the biological, social and economic considerations become more important.

So there's a continuum. At the bottom level where the resource is thought to be at risk, then biological considerations drive management action. As you move through into the safer zone where harvesting can be considered, then social and economic considerations become part of the considerations, and that, in fact, would be done in the strategic planning process that was outlined in Strategy 4 and would be implemented in the annual management plans that were put in place by the department under Strategy 5.

One of the other issues that was -- evolved, I guess, during the development was the explicit reference to the relationship between wild salmon and aquaculture initially, and ultimately the policy deals with aquaculture as an environmental condition as opposed to -- I think I have that right, as opposed to having explicit rules with

respect to it. Can you comment on that evolution?
MR. CHAMUT: Yes, I can. In the initial thinking,
there was going to be operational guidelines that
would deal with habitat and enhancement and
resource management and aquaculture. And as the
policy was evolving, as I've explained we
concluded that operational guidelines were not
necessarily a good approach and we avoided getting
into that kind of a deterministic approach, and
that certainly was why -- one reason why
aquaculture was not there.

But I think more importantly the question comes up as to why would one focus only on aquaculture in the Wild Salmon Policy? It was seen as being another form of human activity that could adversely affect the well-being of the salmon resource. And there's lots of examples where fish farms have, in fact, created problems because of their location or because of their —the way in which they've been operated.

But I think the thinking in the policy was that why would we single out anything explicit about aquaculture and then not do anything about the variety of other activities that adversely or can adversely affect salmon. We didn't anticipate having, for example, guidelines on forestry or mining or pollution or any of the other things that routinely can affect habitat. And I think that was the thinking that drove the group to conclude that having anything other than what's in the policy now about aquaculture, I think that was the way -- why we concluded the policy the way we did.

There are references to aquaculture in the document. It does indicate that there are a variety of -- or a variety of regulations and programs that are directed to assess the impact of aquaculture and it's quite clear in saying that where aquaculture operations may adversely affect the wild salmon resource, then appropriate action will be taken under regulation or legislation to prevent it.

Q Thank you. Mr. Chamut, one of the other issues you -- that's come up in this debate or this discussion and which you address in your summary is the question of the resources provided for the implementation of the Wild Salmon Policy. Can you

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- comment on your view on that, please? MR. CHAMUT: Yes. I -- I mean, I think the issue of resources was always something that was considered, and there is no question that if there were more resources dedicated to the wild salmon -- or to wild salmon, then more could be done. But at the time this was being prepared, I'm reasonably confident that there was very little likelihood that additional resources would be made available to enable the department to implement the policy in a more robust manner. And in my discussions with some of the people, in fact, that are here around this table with me, I think it was understood that while more resources would be really nice, there was adequate resources to enable the policy to be implemented, admittedly over time. It was understood that it was going to take a -- probably a five-year period before the policy was going to be implemented in a way that was, you know, that would meet its -- the expectations that I think we all had. But it was expected it would be phased in and that the resources that were currently in place in the department would be adequate to allow that policy to be implemented in a phased manner.
  - Now, do I take it you didn't independently form the view that the existing resources were sufficient, but rather you relied on others for that advice?
- MR. CHAMUT: I relied on others for an awful lot of the stuff that's in the Wild Salmon Policy and that certainly was one of them. I did receive opinions that resources were adequate to enable a policy to be implemented in a phased timeframe.
- Q And you indicated that some of the people here might address that; would that be Mr. Saunders?
- MR. CHAMUT: I can't speak for the others, and I don't want to put words in their mouth but --
- Q Yes.
- MR. CHAMUT: -- I mean, I think it's a question that I can recall discussing it because it was -- it was important. I discussed it with members of the team and I think the general view was it is, in fact, possible to implement in a phased timeframe and make the policy operational.
- Q One of the things that seems to have come into the policy very near the end is a provision for

Strategy 6 which is an independent five-year review. Do you recall how that requirement evolved?

MR. CHAMUT: Yes, I do. When we -- when the department was finalizing the policy and the -- excuse me, I have to collect my thoughts. As we were nearing the end of finalizing the policy, we engaged in consultation, so the variety of groups. And there were a number of common themes that were raised about the policy, but I think the one that was pretty much universal was a concern about the point you previously raised about resources. Are the resources there? And secondly, does the department have the will to implement this policy.

And it seemed that that was a very stronglyheld view by a number of individuals and I strongly felt and continue to strongly feel that it was important to provide -- to build in the sixth strategy, which was this sort of performance review to provide people with some confidence that there would be a review of the policy to see how it's operating five years out, and secondly, my own personal motivation in putting that in was to serve as a really important spur to the department, so that they knew that this was not an open-ended process and that it was going to be extremely important that they focus resources on the implementation of the policy knowing that it'll be embarrassing five years out if, you know, things haven't -- if things prove that they haven't been properly implemented.

- Q You raise the consultation as being the place where a number of these things were raised. Can you recall any other important aspects of the learning that the department obtained from those consultations?
- MR. CHAMUT: Yeah. I can give you sort of my recollection. I know that there was a lot of changes that were made between the initial draft that was released in December of 2004 and the final policy that was adopted in 2005. Some of the changes that were incorporated you mentioned Strategy 6 which was the performance review, that was added towards the end of the process. We made a number of changes with respect to including comments about aboriginal rights and treaty and how the policy pertained in those areas. We added

-- we talked about the definition of conservation and sustainable use. We included that at the end, along with more explicit guidance about what to do with conservation units that are in the so-called red zone.

We also -- let's... I'm running out of things, but I'd have to go back and do a comparison, but there were quite substantial changes made as the result of the comments that we received, and I'm reasonably sure that they're probably itemized somewhere. But I'm -- as I say, it's been -- it's been quite awhile since I had the good fortune to go through this process and I don't recall all of the changes that were made, but they were quite substantial.

- I wonder, perhaps some of these documents might be of assistance. Exhibit 93. It's -- Mr. Chamut, this is a ministerial briefing from May of -- 16th, 2005 and it identifies at page 4, I think beginning at page 4, some of the key changes as a result of the first round of consultations. Does that refresh your memory?
- MR. CHAMUT: Well, it does more than refresh my memory, and it's basically gives a listing as I recall of all of the issues that were addressed in the policy and that were changed at the -- at the -- after the concluding consultations.
- Yes. If you go to page 8, the remaining concerns, were those -- can you comment on those?
- MR. CHAMUT: Yes, I can. I think that there were groups that were concerned about the lack of any direct reference to aquaculture in the policy or anything that's prescriptive about aquaculture. think the -- I think, as well, that there was a general feeling among a number of organizations that they felt that they wanted a policy that was much more prescriptive, as opposed to the policy the department adopted. There were a lot of concerns -- this is probably the one that was most universal was about the need for new resources for effective implementation, and the other one that's not listed here, but probably is captured under the second bullet, and that was the provision in the policy that allowed the minister under certain circumstances to be able to decide not to protect a particular CU that was in difficulty if there were unique situations with respect to cost,

- likelihood of success and the like. And, I mean, that is one of the features of the policy that did draw a fair bit of attention, but it is something that was there because it was felt that it would be prudent to have some sort of a provision in the policy like that. And -- but those are basically the main concerns that were reflected by some of the groups that we consulted it.
- Q And going over to page 11 of the deck, one of the specific revisions which is referred to there is reference there to Strategy 6 which we've spoken about, and then under implementation, a commitment to preparation and release of a plan for implementation. Do you recall a debate on that and...?
- MR. CHAMUT: Oh, I don't think there was much debate. I think it was -- it was included at the end, along with the Strategy 6 which talked about performance review, but one of the recommendations in the policy, a statement in the policy, would be that once it was adopted, the department would develop an implementation plan, and that plan would provide guidance to departmental staff that would be engaged in implementing the policy post-2005. And it was important, I think, to try and give some confidence to people that there would be some immediate action that would be taken in order to make sure the policy was being implemented.
- I wonder, Dr. Riddell, if I might just come back to you for a moment. You were away, but you came back to the department in 2004. Do you have any comments to add to -- on the question of DFO's efforts to develop operational guidelines for the -- under the WSP and how that evolved, following on what Mr. Chamut had to say?
- DR. RIDDELL: Actually, I don't have much to add to what Mr. Chamut said. A lot of the operational guideline discussion was going on while I was away. The only knowledge I had of it was attending a couple of public meetings and hearing about that discussion.
- Q Yes.
- DR. RIDDELL: So I really had very little contribution to the development of the policy at that time.
- Q Okay. Thank you. Do you -- you say in your summary of evidence at page 3 that aspects of the Wild Salmon Policy were intentionally non-

prescriptive and that some of the vagueness reflects debates about how the policy should develop, should be developed or could evolve. How do you see the benefits of vagueness as you say there?

DR. RIDDELL: Well, there were some discussions that really didn't have a good technical basis that you could really recommend something to. Particular example we talked about in that summary is the idea about the duration of time that a conservation unit may take to recover. You could have expressed those in generations of salmon lifetimes or a person's lifetimes. The notion was simply to get the -- capture the idea that if something is lost, it's going to take a long time That's a very well-documented to recover. observation where salmon have been lost particularly in the Southern U.S. You must protect what you have because recovering something that is very depressed is extremely difficult. It's very unlikely and it can cost a huge amount of money. So the sort of point we're trying to make is protect what you have now because recovery is uncertain.

We used a similar type of wording in the ecosystem-based management in that we didn't have prescriptive measures that we could put in place to implement Strategy 3 immediately. We fully agreed that the value of salmon to terrestrial ecosystems and other aquatic ecosystems was a very valid objective and the commitment was that we would develop those over the next couple of years.

So it wasn't something where we tried to avoid hard decisions. It was where we were trying to acknowledge that we simply didn't have a strong technical basis in how to implement and that we would be willing to work with others to develop how to do that over time.

- Q One of the challenges you identify in your summary at page 3 again is the challenge of integrating the Wild Salmon Policy with the Salmon Enhancement Program. Can you discuss that challenge and how it was affected?
- DR. RIDDELL: Yes, I can. The issue, Mr. Commissioner, was a substantial investment by a Government of Canada in salmon enhancement, very, very strong social support throughout British Columbia for

 that program, but at the same time, significant numbers of concerns about the interaction of major enhancement facilities with naturally spawning populations of Pacific salmon.

So the first issue was one of how do you differentiate a fish produced from an enhanced system -- and major hatcheries and spawning channels is what we're talking about for enhanced. We're not necessarily talking about small conservation hatcheries or habitat restoration programs.

And so one of the discussions was how would you define wild salmon. The definition that we came to actually is extremely similar to a similar debate that was going on in Europe with Atlantic salmon at the time and it simply requires that hatcheries, major hatcheries can't contribute fish to naturally spawning populations which is one of their goals, but it would not be counted as wild salmon until there was evidence that it could contribute within one full generation in the natural habitat.

The other aspects of it was there are conflicts between harvesting more productive hatchery-based salmon versus wild salmon in terms of what are sustainable harvest rates and how do you actually build those into harvest plans and that, so I mean there's a long debate about the interaction between major hatchery production in the United States and growing in Canada and how that would be incorporated under Wild Salmon Policy. An extreme example is that some organizations have identified hatchery production areas in that as opposed to naturally conserved areas. That was not an avenue we wanted to go down because in most areas of B.C. there are groups that value those local natural populations. So we were trying to find ways of integrating the use of hatcheries within the Wild Salmon Policy generally.

- Q So that's interesting. Where are there management's regimes where they identify separate areas for it? And this is for salmon, I take it?
- DR. RIDDELL: Atlantic salmon and Pacific salmon. And that -- well, I mean, one of the -- the best-known probably example for that is the Atlantic salmon in Norway and certain areas where they zone for

 aquaculture and not aquaculture. In Alaska there are areas that are zoned for major ocean ranching and that they maximize production from ocean ranching, but they're not concerned about local populations. It's not that you don't have spawning populations there. It's that you end up with a mixture of the enhanced and wild genetic pools.

- Yes. I asked Mr. Chamut questions about the revision definition of conservation in 2005. What -- do you recall that discussion?
- DR. RIDDELL: Yes. I think I wrote the document. Yeah.
- Q Your name is on it, yes. Do you have anything you would add to that evidence?
- DR. RIDDELL: No. I think that Pat gave a good description of that discussion. The definition of conservation in resource management I think had been evolving for a number of years, and it was separating out -- much of the debate was about separating sustainable use from the conservation of basic biodiversity and that, and my obvious opinion was that that is a sound thing to do, that first we conserve the diversity and that was the explicit objective of the Wild Salmon Policy and then we can talk about appropriate levels of use or sustainable use. But it was our recommendation that most groups were separating use from conservation and that's the recommendation I made.
- Q One of the discussions which one sees in the -through the development of the Wild Salmon Policy
  is the choice of benchmarks versus reference
  points which I think relates to prescription or
  not in terms of management. In your summary of
  evidence at page 4 you discuss those -- that issue
  generally and you say in that also if -- and this
  is at the -- in the middle of page 4 also, if DFO
  had written lower reference point directly into
  the Wild Salmon Policy, you believe that would
  have had resulted in difficult discussions with
  First Nations. Can you explain that, please?
- DR. RIDDELL: Well, Mr. Commissioner, I think -- sorry. Mr. Commissioner, the issue here was the Wild Salmon Policy refers to a lower benchmark which was a -- this was a major development of the policy. This is where the significant protection or conserving biodiversity would take place. In

there we noted that there is going to be concern about how you get around the significant levels of uncertainty in both environmental variation and in management control of fisheries. And the notion was that we would define in the lower benchmark a significant buffer and that buffer was to account for the uncertainty, but it would be probably above that -- the lower benchmark would have an increment added to it.

The lower benchmark in itself in a basic biological principle, is probably where legally you might define conservation. There are decisions in the past where First Nations that have limited opportunity to fish other than at local populations would want to fish below the lower benchmark and that, and so the reason you would do that is that we would say that for fishing in a particular year at a low level, that would not have a long-term risk likely on that population. And so that's where the conflict comes in, in that if you had the lower benchmark including the buffer, that would have a significant increase in terms of what that lower benchmark was going to be, and then may limit opportunities for First Nation peoples that only have limited access to particular populations.

- Q Mr. Saunders, you were the development coordinator for the Wild Salmon Policy from 2003 to 2005?
- MR. SAUNDERS: Yes, that's true.
- Q You say in your summary of evidence that the Wild Salmon Policy was a contentious policy. Can you describe the tensions when you first became involved in 2003?
- MR. SAUNDERS: Yes, I can. I think, Mr. Commissioner, my colleagues have, I think, noted the majority of the issues that were confronting the group, and I think both within the department and external to the department there were a lot of policy issues that were quite contentious. As has been mentioned, the notion of what to conserve, what level of biodiversity were we actually going to commit to managing and protecting, as we were just discussing the precautionary approach, so how do we -- are we prescriptive and how do we determine -- and this notion of moving towards benchmarks. How do we -- the notion around sustainable development is a really key one. Are we simply

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prescriptive or how do we -- how do we make tradeoffs between biological and conservation considerations and social and economic.

And I think the movement that we made there that I think is quite fundamental to this policy is to move towards sustainable development and sustainable use. That recognizes that we need to move towards -- we took the -- one of the words we took out that was very contentious was balancing, where there was an indication, a strong concern that losing -- that any time conservation is pitted against social and, in particular, economic that the biological loses. So we -- the policy is based on sustainable development and collaboration so the development of a process to look for net positive in all three accounts rather than trading off one against the other. So that was a key area of contention about how to do that.

I think the definition of conservation was a very key one and I think it was discussed, Mr. Commissioner, earlier, that -- in the note that Brian brought forward. A lot of the definition around conservation was contentious with the recreational sector being very pro-use of the sustainable use idea, which was a use that had been wise use, rather, that had been co-opted by organization in the United States. It was very much about -- not about conservation in the biological sense. And First Nations in a number of the meetings that you mentioned were very instrumental in bringing forward what they recommended as a more modern version of definition of conservation and our group and Brian in particular, worked and brought that forward.

I think it was also mentioned here this notion of when social and economic considerations would come into play on varying ends of the spectrum of abundance. So with stocks in the red zone, in fact, while biology is a prime consideration there as Mr. Chamut pointed out, there was also the policy includes consideration of an extreme consideration of social and economic impacts and high costs, et cetera, that there may be a rationale for not opting to continue or make large effort to maintain a conservation unit. So that was a very contentious part.

At page 2 of your -- actually, I should take --

seek to mark this as an exhibit. Mr. Saunders, you have read your summary of evidence?

MR. SAUNDERS: Yes, I have.

- Q And I'll ask you some questions about it and give you an opportunity to amplify it, but do you adopt that as your evidence?
- MR. SAUNDERS: Yes, Mr. Commissioner, I'm happy to adopt that into evidence. I would say, as well, that I would be interested in being able to amplify in the course of this -- our discussion here some points on it, but I'd also like to point out that in the context of the development of that statement of evidence, the answers were in response to direct questions and an area -- an exploration of the Wild Salmon Policy and I don't want to be -- to suggest that this is my full sort of breadth of understanding or experience related to the Wild Salmon Policy.
- Q Your answers were limited by our questions.

MR. SAUNDERS: That's -- indeed.

MR. WALLACE: With that caveat, Mr. Commissioner, I would ask that this be marked as, I guess, Exhibit 101.

THE REGISTRAR: One hundred and one, correct.

EXHIBIT 101: Summary of Anticipated Evidence of Mark Saunders, Manager, Salmon Assessment and Freshwater Ecosystems, DFO Science, November 16 and 17, 2010

## MR. WALLACE:

- Q At page -- where was I? Page 2 of your summary, Mr. Saunders, you say that -- you speak of the UN Convention on Biological Diversity as a driver of the Wild Salmon Policy. Can you explain what you mean by that?
- MR. SAUNDERS: Well, I think the -- I was not involved. I think you heard some of the earlier history of the policy in 2000, et cetera, in the late '90s. The UN Convention on Biodiversity was an impetus to -- around, as Dr. Riddell described, the notion of the importance of protecting biodiversity and Canada as a signatory. That became a policy driver to develop the Wild Salmon Policy.
- Q Dr. Riddell, is that your view, as well?
- DR. RIDDELL: No. I think in my evidence statement I said I didn't believe it was a driver because --

not because we disagree with any element of it at all about the UN Convention, but that we were trying to make the point that - and this is why I included it in my opening comments, sustaining diversity and sustaining salmon production are hand-in-hand. I mean, to maximize production for any use or any benefit requires maintaining diversity, their habitats and their ecosystems. And so we were trying to develop that for a period of time.

The Wild Salmon Policy is certainly consistent with the intent of the Convention on Biological Diversity. We were also trying to develop the Wild Salmon Policy in advance of **SARA** and that because if the Wild Salmon Policy is implemented correctly, then we shouldn't have to worry about **SARA** very often until Mother Nature gives us a blow like at Sakinaw Lake or something and that. So, I mean, we were trying to develop these things in parallel, but I would say that while it matches the intent of the Convention on Biological Diversity, we were trying to do it for a rational and forward-thinking resource management.

- Thank you. Mr. Saunders, would you have the same comments about the **Species At Risk Act** that Dr. Riddell suggests?
- MR. SAUNDERS: Yes, indeed.
- Mr. Saunders, do you recall the discussion about the use of the expression "an acceptable timeframe" with respect to the prospect of losing a population within a CU?
- MR. SAUNDERS: Yes. I have the same recollection as Dr. Riddell presented earlier.
- Q At page 3 of your summary, Mr. Saunders, you speak of the -- another challenge being the -- determining the role of First Nations and aboriginal traditional knowledge in Wild Salmon Policy implementation. What was that challenge? What was the challenge of determining the First Nations and aboriginal traditional knowledge roles?
- MR. SAUNDERS: Well, I think in the development of the Wild Salmon Policy, Mr. Commissioner, it's -- was very -- recognized very early on that there's a need to incorporate traditional ecological knowledge. How to actually do that has proven to

be much more -- much more of a challenge. So how to -- there have been a couple of attempts to develop proposals and guidelines but to my -- certainly nationally, but I don't -- we haven't made significant progress in the region in that aspect of directly relating it to the Wild Salmon Policy implementation.

- You were involved in the consultation with -- in late 2004, 2005?
- MR. SAUNDERS: Yes.

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- Q What do you -- what can you -- what is your recollection of those consultations?
- MR. SAUNDERS: Well, I think, Mr. Commissioner, I would -- I think this is one of the first policies and I don't have -- I didn't have a long history within the Policy Branch starting in 2003, but I think at the time there was a -- one of the -- this is one of the first policies that I believe was developed in such an open and transparent fashion. several meetings that we had, we took great care to meet with both First Nations and stakeholders separately and then made efforts to bring First Nations into the larger multi-interest stakeholders' sessions. I think it's -- these were done -- all of these consultations were held, I think, in good faith in that everything that we -- that we were in the draft policy were on the table and every -- everything that was heard was very carefully considered in terms of subsequent drafts of the policy. So there were at least two major sessions where we put a draft policy on the table and then came back and made significant changes to it. And also with that explanation of in cases where we didn't make changes the rationale for not doing so. So I think it's fair to say that -- I mean, I think there was a high degree of understanding of this policy and engagement in its development with First Nations and stakeholders.
  - Q Were there any -- any of the stakeholders who you thought were offside by the end of the process?
- MR. SAUNDERS: Can you tell me what you mean by offside?
- Q Not in agreement with the policy as it was developing.
- MR. SAUNDERS: I think that's -- I think in general, we had agreement with the principles and the majority

- of the policy framework that was being presented.
  I think we still had select groups that still felt
  at the end that this notion of prescription needed
  to be -- and perhaps guidelines needed to be more
  clearly developed in the policy.
  So they were still -- there was scepticism about
  - So they were still -- there was scepticism about how it was all going to play out, as opposed to problems with the policy itself?
  - MR. SAUNDERS: I think, Mr. Commissioner, as noted already, I mean, there were concerns about resources, but there were also concerns that it was not prescriptive.
  - Q Do you recall who held these concerns?
  - MR. SAUNDERS: I think it would -- I would say it was the -- a number of the NGO groups that were concerned.
  - Q In your summary, Mr. Saunders, you mention a document which hasn't been put into evidence yet, but I'll ask Mr. Lunn if you bring this up. It's the -- and I don't -- the news release of June 24th, 2005. This may only be a Ringtail document and it's...
  - MR. LUNN: Do you have a tab number or a Ringtail ID?
  - MR. WALLACE: Yes. It's CAN032215.
  - MR. LUNN: And is that in one of our lists?
  - MR. WALLACE: I think this is a complete surprise.
  - MR. LUNN: Okay. 032215?
    - MR. WALLACE: Yes. It's referred to in Mr. Saunders' summary, but not attributed to a document there.
    - Q Mr. Saunders, this is a document from the release, the press release, on June 24th, 2005 which accompanied Minister Higgins; approval and release of the Wild Salmon Policy and in your comment you say you agree that the WSP is a living document and not designed to be set in stone. Can you expand on that, please? Or you disagree with that?
    - MR. SAUNDERS: I --
    - Q Sorry? I'm sorry? You agree with the press release except for the statement that it's a living document. Can you comment, please?
    - MR. SAUNDERS: Yes. Mr. Commissioner, I'm of -- my understanding is that the policy is a national policy that's been adopted as written, so I suppose to some degree I don't have experience with what steps would be taken to actually modify a national policy, but in terms of our approach to

implementation, we approach it as a document and follow it to its letter and its intent. So I'm not aware of a process to implement the policy, move the policy forward as a living document. Okay. Thank you. Mr. Chamut, while we have this news release in front of us, the minister says that this policy is transformative, which is:

The Wild Salmon Policy --

This is in the third paragraph.

-- significantly transforms the management and conservation of wild salmon, their habitats and dependent ecosystems.

Would you agree that the policy is -- reflected a transformation in management of fisheries?

MR. CHAMUT: Well, first of all, I usually try to avoid using the words "transformative". I suspect here's a press release that I would -- I've only just -- this is the first time I've seen it, and I would confidently predict it was written in Ottawa, because everything likes to be transformative. But having said that, it is, in my opinion, the Wild Salmon Policy is probably one of the few things that actually meets the definition of transformative. It is fundamentally changing the management of wild salmon.

It -- I mean, I don't want to belabour my background and experience and I'm particularly not eager to get into it, but the reality is -- I mean, I've dealt with management of Pacific salmon since probably 1985 through till I retired in one form or another, and it was always fraught with inevitable conflict and debate over what are we trying to conserve? How much are we trying to conserve? And how are we going to do it? And it just fragmented the management program and caused endless conflict between user groups, every one of whom decided what it was that we should as a department should be conserving.

And what this policy does is it defines what we're trying to conserve, it should stabilize management and allow people to get onto more productive approaches to meeting the objectives of the policy and I'm not so naïve to think that it

will eliminate conflict and that it will be utopian road from this point forward. There will always be that kind of conflict. But it really lays to rest a longstanding issue about what we're trying to conserve. And I'm absolutely convinced that the policy with the way it defines conservation, the way it defines for how sustainable use will be achieved and how we're going to proceed in terms of an integrated, strategic sort of watershed plan, I think it is transformative. I believe it is a very strong policy that provides a good foundation for the department to meet its objectives for Pacific salmon. And I think it's good for the department, but I think more importantly it's good for the resource and ultimately for all of the people that depend upon it for enjoyment and livelihood and all the other things that the salmon resource has as value. So, yeah, I think it is a really important document, not to be understated.

- Thank you. Dr. Irvine, you've been sitting patiently. You -- tell me how and when you first got involved with the development of the Wild Salmon Policy?
- DR. IRVINE: Well, as you said in your opening statements, I guess forever. But no, really the Wild Salmon Policy is -- it's part of the evolution of a process and there's quite a few of us within DFO that have been involved in this kind of research, I guess, for most of our careers but I became officially involved with the WSP in about 1999, and so for the preparation of the first draft in 2000 and then right throughout until the final version was released in 2005.
- MR. WALLACE: Thank you. I'll take you to your summary in a moment, but I realize, Mr. Commissioner, I did not mark the press release, the news release of June 24th, 2005 which Mr. Saunders addressed. I wonder if that could be marked as the next exhibit, please?

THE REGISTRAR: One hundred and two.

EXHIBIT 102: Fisheries and Oceans Canada New Release dated June 24, 2005, entitled, "Adoption of Wild Salmon Policy Continues Reform of Pacific Fisheries"

MR. WALLACE:

- Mr. Irvine, as I have asked the others, you have reviewed a summary of evidence which we prepared and subject to opportunities you'll have orally, do you adopt that as your evidence?
- DR. IRVINE: Yes. There's nothing incorrect, what is in the summary of evidence, but as others have pointed out, it is a fairly incomplete documentation of sort of my history and involvement. And so I would say I would accept this providing I am able to at some point amplify some of the issues that were discussed particularly in the first publication listed in bullet 4, which kind of documents a lot of the history that we've been talking about this morning. So I definitely would like to amplify some of the issues that are at least from my perspective that are raised in that publication.

And then if we do get into a discussion of biological benchmarks and management reference points, I would ask that we are allowed to refer to the Wild Salmon Policy document itself and, in particular, Figure 3 and some of the text associated with that. So -- so with those provisions, I would accept this. Thank you.

- You will certainly have an opportunity to make the picture complete.
- DR. IRVINE: Thank you.
- MR. WALLACE: Subject to that, Mr. Commissioner, may we mark as Exhibit 103 Dr. Irvine's summary of evidence, please?

THE REGISTRAR: One hundred and three.

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34 EXHIBIT 103: Summary of Anticipated Evidence

of Dr. Jim Irvine, Research Scientist, DFO Science, November 16 and 17, 2010

- MR. WALLACE: Perhaps, Mr. Commissioner, this would be a convenient time. Is that -- I'm not sure whether -- well, we have five minutes.
- Q Perhaps, Dr. Irvine, would you care to take five minutes to address the amplification that you would like to add on the publications referred to in the fourth bullet?
- DR. IRVINE: Well, to be honest, it would probably take more than five minutes.
- Q Take more than five minutes. Well, perhaps you

could just introduce the topic.

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2 DR. IRVINE: But basically, this publication which is 3 referred to as CAN185538 --4 Now, this --5 DR. IRVINE: I'm a little confused about how this 6 works, if this has actually been entered into 7 evidence. I don't really --8 It has not yet been entered into evidence. 9 DR. IRVINE: Okay. 10 It has been entered -- oh... This is -- thank 11 you. This is Exhibit 96. 12 DR. IRVINE: So, thank you. You know, as mentioned, I 13 was involved with the development of the Wild 14 Salmon Policy, you know, right from the get-go 15 until 2005 and so I do have a recollection of the history during the period when Dr. Riddell was on 16 17 secondment or was outside of the department. 18 this particular paper was very important for me to 19 write and it really had two objectives: one was 20 to document the history of the development of the 21 policy, but what's kind of interesting, Mr. 22 Commissioner, is that we had the first release of 23 this Wild Salmon Policy in 2000 and it wasn't 24 until another five years when the policy was 25 completed. And there were a number of lessons 26 that I think were sort of germane or that we 27 learned during the development of the policy. 28 I firmly believe that if we had been better 29 informed in the beginning, we probably could have 30 done -- we could have completed the policy 31 quicker, I guess. And I would like to have the 32 opportunity to kind of go through some of these 33 lessons and a little bit of the history. I'm not 34 just sure if there's time to do that right now. 35 Perhaps we can have a discussion about this and 36 we'll give you an opportunity to do that --37 DR. IRVINE: Thank you. 38 -- early this afternoon. 39 MR. WALLACE: Mr. Commissioner, may we break now for 40 lunch? 41 THE REGISTRAR: Hearing is now adjourned until 2:00 42 p.m. 43 44 (PROCEEDINGS ADJOURNED FOR NOON RECESS) 45 (PROCEEDINGS RECONVENED) 46

THE REGISTRAR: The hearing is now resumed.

1 MR. WALLACE: Thank you, Mr. Commissioner.

EXAMINATION IN CHIEF BY MR. WALLACE, continuing:

 Q I wonder if we could start by cleaning up the question of the June/July 2003 exchange between Mr. Chamut and the Pacific Region, relating to advice to the Minister.

I wonder, Mr. Lunn, if you could pull up Exhibit M, please.

- MR. LUNN: I'm sorry. Excuse me, the screen's not on. It will take just a moment.
- MR. WALLACE: We have it on our screens here.
- Q Mr. Chamut, this was the document which we looked at previously, just to remind you.

And I wonder, Mr. Lunn, if you could call up Ringtail CAN001426.

Now, Mr. Chamut, do you recognize that note, which appears to be a cover note from you, accompanying the document we just looked at, the deck, with a note from you to the Pacific Region. Do you recall that?

- MR. CHAMUT: Well, to be quite honest I don't actually recall it, but clearly it's my writing, my signature, and it clearly indicates that I had prepared a deck for briefing the Minister on Wild Salmon Policy at some point, and I sent it out to the Regional Director General, John Davis. And in this note I was asking him for comments.
- Q And this occurred three days after the date on the deck?
- MR. CHAMUT: That's correct, yeah. I suspect that that would have involved the -- the time delay would have been the time it took to get it typed. I would have written it on the -- was it the 23rd?

  O Yes.
- MR. CHAMUT: Yes. And then --
- Q Well, that's the date on the deck.
- MR. CHAMUT: Right. And then I -- this would have been -- would have been returned to me in final form and I would have sent it out with a handwritten note out to John Davis three days later.
- Q Okay. Now, thank you. If we could then look at document -- yes, perhaps now that we've gone that far, we'll just mark those two documents, which is the draft, the deck of June of 23rd, 2003 on the Wild Salmon Policy, and the cover note from Mr.

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1 Chamut as the next exhibit. That will be 104. THE REGISTRAR: 3 4 EXHIBIT 104A: Draft of Wild Salmon Policy, 5 "Conservation of Pacific Salmon, Policy 6 Issues for Management of Wild Salmon" dated 7 June 23, 2003 (formerly marked as M for 8 Identification) 9 10 EXHIBIT 104B: Cover note from Pat Chamut to 11 John Davis 12 13 MR. WALLACE: 14 Then having seen, getting the context from those 15 two documents, Mr. Chamut, I wonder if I could ask you then to look at Exhibit for identification N, 16 17 which is document 2 in the Wild Salmon Development 18 binder. This is identified as a "Briefing Note 19 for the Assistant Deputy Minister, Fisheries 20 Management" in June of 2003. That was you? That's correct. 21 MR. CHAMUT: 22 And again reviewing it, it appears to be the 23 response from the Region to your request for comments of the 26th of June. 24 25 MR. CHAMUT: That's correct. 26 And just for continuity, if I could have Exhibit O 27 for identification, it would seem that that was 28 the cover, the fax cover which was addressed to 29 you, including this briefing note. Although 30 perhaps that doesn't add anything to it. So --31 MR. CHAMUT: Well, I --32 It really doesn't add anything. MR. CHAMUT: No, and it's -- I can't tell whether 33 34 that's the cover note or not. Because all it is 35 is dated without a subject. 36 Right. 37 MR. CHAMUT: So it could very well be, or possibly not. Indeed, the substances are more important. So 38 39 perhaps we could just mark the briefing note as 40 the next exhibit, please, "Briefing Note to the 41 Assistant Deputy Minister from Pacific Region". 42 105. THE REGISTRAR: 43

EXHIBIT 105: Briefing Note to the Assistant Deputy Minister, Fisheries Management from Pacific Region (formerly marked N for Identification)

MR. WALLACE: And then I think we can simply ignore Exhibit O for identification, Mr. Commissioner.

Q Now, Mr. Irvine -- Dr. Irvine, rather, thank you, we have -- you have directed us from your summary of your evidence to a document that you wrote in 2008, which is Exhibit 96. And I understand you'd like just simply to make use of that, to put some perspective on your summary of evidence. If you could do so briefly, I would appreciate it.

DR. IRVINE: Yes, if I may. Thank you very much.
So this publication was probably written in 2005/2006. The peer review process in science tends to take a couple of years before something is actually published. And I should point out that this -- I am the sole author of this, so that the points expressed in the paper are mine.
Hopefully, they're shared by my colleagues within Fisheries and Oceans Canada.

So I'd like to just quickly walk through some of the elements in this report, but I don't -- my purpose is not to review or to repeat what we talked about this morning. But I would like to just review some of the history of the development of the Wild Salmon Policy. And the other thing that has sort of struck me in this morning's discussions is that we haven't actually talked very much about the policy itself. And so I'll hope to just use this as sort of a -- a bit of a springboard to just try and talk a little bit about the policy.

Dr. Riddell provided an excellent background as to the factors leading up to the development of the policy, and then he discussed in some detail the process by which conservation units are identified. But we haven't really had an actual discussion of the policy, and this may or may not be the appropriate time but I'm going to try and insert just a little bit of discussion there.

But before doing that, if maybe we could just look at the first paragraph in the Introduction. And we talked this morning about how this policy is somewhat transformative. But I'd like to just expand on that a little bit and just talk about how unusual it is. I've got in the very final two lines there, I've got the definition of what a public policy is. So it is:

A course of action adopted by a government to achieve a desired goal.

What science is about, is about testing hypotheses. So most scientists, you know, if they were given the opportunity to be involved in the development of a public policy, they would probably find themselves rapidly falling asleep. You know, it really isn't what we're sort of trained to do, and yet that's exactly what we did within the Wild Salmon Policy.

The Wild Salmon Policy was really a major change in direction, if you like, within Fisheries and Oceans Canada because it actively involved the participation of several of us scientists in the development of a -- of a public policy. And so that, that is quite unusual, and it's something that a couple of decades ago would not have taken place, I don't think. But it's becoming increasingly more common that scientists are feeling passionate about seeing the results of their research actually implemented in a way that actually has an effect on society.

So if we just, you know, turn to the -- I guess the next page, maybe the top of the -- that second page there, that the end of the first paragraph up on the top left there

So really the Wild Salmon Policy as it began was really started out as quite a local initiative by — it was led by Science Branch, but over the course of the next five to six years it really evolved into something that was more of a national initiative, and it not only involved scientists and policy makers within the Fisheries and Oceans, but also stakeholders, academics, members of the public, First Nations, so it became much, much broader than we had originally intended, I guess, or at least understood.

So if we just look at the very first "Lesson".

So the paper, what this paper does, is it documents the history of the policy, the development of the policy, which goes over six years. But what I did is I've tried to identify lessons learned, which I think if we'd known them in the beginning, we probably would have done the policy quicker. But also I think a lot of these

lessons are applicable to policy implementation, so they might be of some -- some reason or some value just to quickly touch on them.

So the first lesson is really that "decision makers must be receptive to proposed changes". So if you really want to have a policy that's going to be effective, if the senior decision-makers in Ottawa or wherever are not receptive to these changes, you're probably wasting your time.

Now, if you just turn to -- if you could highlight the paragraph on the -- that starts "A turning point for DFO".

Now, really one -- the text before this talked a little bit about the International Convention on Biological Diversity and some of the issues that Dr. Riddell talked about. But I don't think this New Directions Policy has come up yet today. Now, this New Directions Policy was released in 1998 and this was extremely pivotal in terms of our management and assessment of Pacific salmon. And really this New Directions Policy identified that conservation was the primary goal in terms of fisheries management.

And I just want to point out that if you look at the - maybe move it forward one line - that there were actually four major policies that developed as a result of this New Directions document. So there was a policy on Salmon Allocation, there was a policy on Improved Decision Making, one on Selective Fishing, and then the Wild Salmon Policy. So really the Wild Salmon Policy wasn't done in isolation. It really developed following the New Directions paper, but it was along with three other significant policies. And what's kind of interesting is that you'll notice that the Wild Salmon Policy is dated 2005, the others are dated much earlier, just to give an idea of the complexity of the issues that we're talking about.

So maybe we could just highlight that house on the bottom of the page. Now, this is a -- so it's that figure. I don't know how well you can see that. Now, this figure is actually taken from the Wild Salmon Policy, and I'm not -- it doesn't reproduce very well here, and I don't want to go into any -- any great detail. But it just will give me an opportunity to just provide a little

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bit more background on -- on the actual policy.

And so we spent a lot of time talking about
the wording of a lot of these -- you know, that's
in this house. And if you look at the "Goal", for
instance. So the goal is to:

Restore and maintain healthy and diverse salmon populations and their habitats for the benefit and enjoyment of the people of Canada in perpetuity.

So we just think a little bit about that. So it's not only "maintain", but it's "restore", so that's, you know, a little bit -means a little bit more than just sort of accepting the status quo. "Healthy and diverse", so the status has to be reasonable acceptable, but they're also diverse, so that the populations have to be genetically diverse. So "salmon populations and their habitats". So as Dr. Riddell pointed out, you really need to have the habitats and the ecosystems, those are really what form the basis for adaptations. That's how salmon adapt, is that they live in different environments. And really what this is about is preserving this adaptability. So then "benefit and enjoyment", so again that means a lot. So benefit kind of implies that there's an economic gain. Enjoyment implies that there's other sorts of attributes, you know, the non-consumptive uses of salmon that are really important. And then we talk about "for the people of Canada in perpetuity". So this is a really -- this, you know, this is forever.

So this is a major, major statement, this goal, and there's a lot of -- a lot of, you know, thinking and debate went into those particular words.

And I'm not going to belabour this, but if you look at the "Objectives", you know the first is about the genetic diversity of wild salmon. So we feel very strongly that we're in a period of changing environments, climate change, the way to ensure that we have wild salmon for our grandchildren is to ensure sufficient genetic diversity so that the fish are able to adapt to a changing environment. How do we do that? We do that by maintaining habitat and ecosystem

integrity. Without the habitat and ecosystems, you really don't -- you won't have the ability to develop the diversity within the fish. But then finally, because we are a resource agency, we certainly need to manage fisheries for sustainable benefits.

So there are the six "Strategies" that we've talked about briefly. I'll just point out that the first three are kind of as Brian pointed out, are the information gathering. These are really the scientific information gathering approaches.

So the first is basically how healthy are the fish. The second is what's the state of the habitat, and the third is all about the ecosystem. So those three -- information from those three strategies feed into Strategy 4, which is the "integrated strategic planning", and this is where socioeconomic considerations take place.

So I'll just mention that the "Principles", again "Conservation of wild salmon and their habitats" is the highest priority. So that's number one. As I mentioned this morning, this is — takes precedence over sustainable fishing. We have a guiding principle of honouring "obligations to First Nations". And then finally "Open and transparent decision-making".

So it's -- you know, this is just a real snapshot of the Wild Salmon Policy, but I think it's important for people to understand that this is -- this is really a major document that went through a lot of review.

So maybe just move ahead to the middle of the -- let's see, that bullet number 3 there, "Lesson 2". And I just -- I just want to point out that, you know, this is -- when we started this policy, you know, we started it -- we released the first draft in 2000.

And if you highlighted the paragraph that starts with "Ecological policy issues", it's kind of interesting because the first version of the policy that we released in 2000 included a statement DFO expected to finalize the policy later that year. So that's kind of how naïve we were. So it took — it took another five years. So clearly this was a far more complicated document than we anticipated.

If we move down to "Lesson 3", which is

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essentially:

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Good scientific advice requires good science.

But it's a bit of a challenge when you're -- when you're talking about scientists that work for Fisheries and Oceans Canada, there is the possible perception that we may be influenced by political pressures. So we may be less than biased. I mean, I personally think that we've got probably the best scientists in the world, you know, some of them anyway, working for Fisheries and Oceans.

Well, that seems to be pretty -- pretty obvious.

But what we did is we developed, and doing, developing the policy, we made a real effort to interact with others. And this second paragraph on the top there talks about several science based workshops that were held early on. So we invited participation from scientists from the East Coast and from the Pacific Northwest and the United States. We had regular reviews and contributions from groups such as the Pacific Fisheries Resource Conservation Council. So this was definitely not

done independently of scientists from elsewhere.

If you move down to "Lesson 4", and this for me personally was the biggest -- the biggest lesson, I guess. And so this lesson is:

Recognize that environmental consequences are only one element to consider when making decisions.

And this -- so maybe just highlight Lesson 4.

When we started the policy in 1999 and 2000, it was primarily a science-driven process. We had some involvement from others, but it was basically -- it was largely driven by science. So we released a policy in 2000. Then we had a round of public consultations. There was a -- the version in 2002 that I was primarily responsible for, which included all the information on operational objectives and all that kind of stuff. But it was really at about that -- let me back up a little bit.

So the 2000 draft and the 2002 draft - maybe just go down about two paragraphs - were really science-based policies that really didn't consider

social and economic issues. And so it's relatively easy to think about how you're going to manage a resource if you don't have to worry about economics, you know, it's fairly simple.

So and this was -- just move down to the paragraph that starts "The WSP seeks to conserve salmon diversity". So this is really, I think important. Now, everybody agreed -- virtually everybody agreed that with the Wild Salmon Policy we want to conserve diversity. We want to protect the fish. We want to protect their habitats and we want to protect their ecosystems.

But the real issue was how much diversity to protect. And that's where you got disagreement amongst the different user groups. And this is where the debate about whether the policy should be prescriptive or not should come in. And initially we thought in our naïve way, we did think that it should be prescriptive. We had started along the line of developing these operational guidelines. But this was really before we seriously recognized the importance of social and economic considerations in the decision-making process.

And so commencing in about 2003, we expanded the involvement of others in the development of the policy. We involved people, like Mark Saunders in Policy Branch got involved. And we sort of recognized that ecological consequences are only one element to weigh when making decisions about complicated environmental issues.

And the other point I make in the last sentence of that paragraph is that societal views that might dictate a particular prescriptive approach, they can change quickly. So if you had an overly prescriptive policy, environmental policy, chances are it would become out of date very, very quickly.

So I think we'll probably talk about benchmarks and reference points at some other point, so I'm going to leave that.

But "Lesson 5" is about uncertainty and managing risk. And I think it's important for non-biologists to understand just how much uncertainty there is in environmental science. It's not like, you know, an engineer that if he wants to build a bridge, or a building and he can

go to a book somewhere and read about how much stress and figure out what to do. You know, we're talking about, you know, ecosystems which are changing, they're adapting, they're evolving, there is always going to be uncertainty when --when it comes to predicting things. For instance, how many salmon will return to the Fraser. I mean, it's a very difficult thing to do. But we attempted to do -- we attempted to do this, or deal with this by managing -- managing risk.

I think I'll just quickly move ahead to "Lesson 6", which is all about maintaining

...effective, transparent, and open communication recognising the need for significant public inclusion.

And we talked a little bit about the process by which the 2004 document was revised to produce the 2005 document. And this was a really significant process for me. And if we could maybe just go to the top of the second column there, that starts "During 2005".

So this was up until this point, what we had been tending to was essentially visit different communities in the province, First Nations communities, stakeholders groups, and provide lectures and talks. But in 2005 what we did was something very different. We formed these quite large multi-interest dialogue groups or fora, and -- and we had two sets of them. One was specifically for First Nations and the second was for everybody, including First Nations. And we started by providing them with copies of the 2004 draft policy. And basically we went through that policy line-by-line, in these large groups. We had breakout sessions and near the bottom there it says:

During 2005 alone we received and reviewed 246 electronic and written submissions.

So we had a huge amount of effort basically making changes, but not only that, documenting and responding to the input that we got from many people.

And there -- if you move down to the next

paragraph, there were a large number of changes that were made. And I think one just has to compare the 2004 document with the final version in 2005. And in that paragraph there, I just comment on a few of these changes that were made towards the end. And a lot of them were as a result of input from First Nations.

And so, for instance, we added a totally new principle, Principle 2:

Resource management processes and decisions will honour Canada's obligations to First Nations.

So that was put in at that stage.

We modified Principle 3 to reflect Aboriginal Traditional Knowledge.

We expanded Strategy 5 to include references to First Nations governments and we changed the proposed planning structure.

so those are just a few of the changes that we made in response to the -- you know, to input at the -- at the final stage.

So why don't we just -- just skip ahead to "Lesson 7" and I think I'll probably stop after that. And this is about planning for the future and especially policy implementation.

Now, a lot of these lessons that I've very briefly touched on, although they were specific to the development of the policy, they, I think, are in many cases relevant to policy implementation. And I think I'll leave it there.

But I do sort of have the feeling that this group here is not sufficiently informed about the policy itself, and it would be nice if we had the opportunity to just talk about it a little bit. But I'll stop there. Thank you.

- In your summary of evidence you speak of the challenges at page 1 of the summary. You speak of the challenge in developing the concept of CU's, and your preference for the use of benchmarks rather than reference points. Can you just address that. Thank you.
- DR. IRVINE: That was my other request, is if we could look at Figure 3 in the Actual Wild Salmon Policy, I think that this will clarify this discussion quite a bit. So this is --

Q That's on page 17.
DR. IRVINE: Page 17, yes.
Q Page 17 of Exhibit 8.
MR. LUNN: Thank you.

DR. IRVINE: What we were trying to do in Strategy 1 of the Wild Salmon Policy -- let me just back up. So Strategy 1 is about the first action step is to identify conservation units. So what are the units of salmon diversity that we are attempting to assess and manage. The second action step is about the identification of these benchmarks. And then the third action step deals with categorizing the status.

Now, what we tried to do in Strategy 1 was essentially separate what you might call biology from social science. So the whole intent of the purpose of this particular figure and these benchmarks is to develop for each of these conservation units a measure of the biological status of the group of fish. So this does not have to do with whether you are managing for whatever the management objectives are.

So essentially the lower benchmark and the upper benchmark were intended to demarcate groups of salmon that would be in what we called the Red Zone, the Amber Zone, and the Green Zone. Now the types of information that were used, the two most important ones that we identified in the policy were the number of fish within a conservation unit, and their distribution. And so when you're thinking about the health of a group of fish, if you think of a watershed, you think about the fish in that watershed, if that was a conservation You obviously want to have a certain number unit. of animals. But you also want to have them distributed throughout that watershed. don't want to have all your eggs in one basket. So it's really talking about the abundance and their distribution.

So those are the primary means by which to identify whether, you know -- that's how you identify the lower benchmark and the upper benchmark.

Now, I think you were asking about reference points. Now, benchmarks and reference points are the same thing. A benchmark is a reference point; a reference point is a benchmark.

Now, we specifically used the term "benchmark" to avoid some of the sort of implications with target reference points and limit reference points.

Now, a target reference point is -- is more of a fishery management objective. So where is it that you would like that population to be. And so for instance you may decide that your objective for a particular group of fish is to maximize economic opportunities from that fishery. You might decide that your objective is to maximize catch, which is quite different than the economic gains. Or you might decide that your objective is simply to prevent that group of fish from going extinct. So those are three very different targets.

So what we tried to do in Strategy 1 is separate out the science from the management. And so the higher benchmark was attempted to -- it would be at a point at which the population would achieve maximum yield. The lower benchmark was deliberately precautionary, so that it was set at a point above which COSEWIC or **Species at Risk** would consider listing a population as endangered. So it's just a biological status of a group of fish which would then feed into the decision—making process along with other information on the habitat that the fish lived in, their ecosystem, and of course social concerns and economic considerations.

## MR. WALLACE:

- Q Am I right then that in the Wild Salmon Policy as it was finally developed, Strategy 4 is that taking into account of the other values?
- DR. IRVINE: Would you repeat that, please?
- Q If Strategy 4 is the place in which the science is merged with decision-making.
- DR. IRVIÑE: That's correct, yes.
- Q And early on that, am I correct that that second step was considered -- operational guidelines, management guidelines were considered as a, if I may put it, a different way to merge those two pieces.
- DR. IRVINE: That's right. I mean, if you look at the first version of the policy, it actually talks about LRP's and Tarps. So the policy, you know, over six years went through a real evolution.

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- And if I may just go back to -- you were, I think, 1 involved in the early stages with the development 3 of the operational and management guidelines, 4 correct, the operational guidelines? 5 DR. IRVINE: That's correct. 6 I'd like just to take this opportunity, then, to 7 ask you to identify a couple of documents which 8 relate to that process. The first is document 1 9 on the development, proposed exhibits, Mr. Lunn. 10 Now, is this -- are you familiar with this 11 document? DR. IRVINE: 12 I haven't seen it for a few years, but it 13 -- yes. 14 Can you -- are you an author of it? 15 This -- can you scroll down, give me a DR. IRVINE: little more of a clue. 16 17 Yes. So this, it would be interesting to 18 know what year it was. 19 I was going to ask you that. 20 DR. IRVINE: Well, you see, as I mentioned, there was 21 the version of Wild Salmon Policy that was -- that 22 was completed in 2002, that I was primarily 23 responsible for, and went to the Policy Committee 24 in Ottawa. And I think it was probably Mr. Chamut 25 that wisely said this needs more work, and then it 26 came back. But so this would have been either prior to or subsequent to that. So this is a -- I 27 28 would have been involved in the development of 29 this document, I presume, but I don't remember 30 this one in particular. 31 If you look at the first page of the document Q 32 under "Principle 3", it speaks of establishing: 33 34 ... operational guidelines consistent with 35 best practices in risk management for 36 carrying out harvest, habitat, fish 37 cultivation activities. 38 39 Can you just tell us how establishing those 40 operational guidelines for each of those
  - activities were intended to be achieved?

    DR. IRVINE: Sure. We actually did develop very preliminary guidelines for each, fish management, habitat management, enhancement and aquaculture, and I think I saw some of those in the binders. So but we understood that this was a far more complicated exercise than we had initially

 thought, and as Mr. Chamut indicated this morning, the decision was made that this was probably not the best way to go.

And the way I really look at it is one of the points I tried to make when I went through the paper was it was really sort of the recognition that of the importance of social and economic considerations in the decision-making process. And so if you're going to have an operational guideline that says, you know, that you will stop harvest when "X" happens, I mean, you know, really what you're trying to do is reflect society. You're not trying to reflect a conservation biologist's perspective, or an economist's. And it's really the decision was made that this was not the -- a prescriptive approach towards this policy was not the best way to do it.

And so there was a major change in direction in about 2003, where we went away from the operational guidelines and attempted to more clearly identify the important principles in the policy. But also to involve stakeholders more broadly in the development of the iterations of the policy. And that's primarily what we did in 2005.

- Thank you. So this document, the "Definition of Conservation Units under the Resource Management Guidelines" would have been part of the process which you say came to an end in about 2003?
- DR. IRVINE: I wouldn't say it came to an end, but it changed direction.
- Q The direction changed towards the --
- DR. IRVINE: That's right. Yes.
- DR. IRVINE: Yes, and at this point, you know, we hadn't really -- it's a very exciting time in fisheries right now because basically you're dealing with, you know, the development of the **Species at Risk Act** and what constitutes designateable units. We were grasping, grappling within WSP what is a conservation unit. So there was a lot of thinking that was going on and not surprisingly there were changes being made at different stages. So this would have been written in perhaps 2002 or 2003.
- MR. WALLACE: Thank you. Mr. Commissioner, with that

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1 timeframe, I wonder if this could be marked as the next exhibit. THE REGISTRAR: 106. 3 4 5 EXHIBIT 106: "Definition of Conservation 6 Units under the Resource Management 7 Guidelines", undated 8 9 MR. WALLACE: 10 And another document on the -- from that same era, 11 perhaps a little earlier, Dr. Irvine, is document 12 12, Mr. Lunn, in that same binder, and this is a 13 document entitled "Wild Salmon Policy, Operational 14 Guidelines, Preliminary Outlines" and it has your 15 name on the bottom left-hand corner and the date of December 6, 2001. Do you recall this document, 16 17 Dr. Irvine? 18 DR. IRVINE: Yes. Again if you could show me the 19 second page. 20 Yeah, so this was early on. So this was --21 so this was the Resource Management Guidelines, an 22 initial estimate of the time to completion. 23 And that was part and parcel of that initial view 24 of how they should be done. 25 DR. IRVINE: That's correct. 26 MR. WALLACE: I wonder, Mr. commissioner, if that could 27 be marked as the next exhibit. 28 THE REGISTRAR: 107. 29 30 EXHIBIT 107: "Wild Salmon Policy, 31 Operational Guidelines, Preliminary Outlines" 32 dated December 6, 2001 33 34 MR. WALLACE: 35 Dr. Irvine, just looking beyond the second page of 36 the document, can you just explain how this 37 document addresses the operational guidelines 38 challenge. There were four areas, I think. If you go to page 4, for example, "Habitat 39 40 Sustainability Guidelines". 41 DR. IRVINE: That's correct. So there were, as I think 42 I mentioned earlier, there were fisheries or 43 resource management guidelines, habitat 44 sustainability guidelines, and then my 45 recollection is that there were both enhancement 46 and aquaculture.

And if you just scroll through there is "Salmon

Enhancement Guidelines" and on the last page
"Aquaculture Operational Guidelines".

DR. IRVINE: That's correct, yeah. So this doesn

- DR. IRVINE: That's correct, yeah. So this doesn't really provide the guidelines. This is just sort of was my estimate of the time it would take to complete the guidelines.
- Q And an outline of what each of the guidelines would entail.
- DR. IRVINE: An early outline, yes.
- Q Yes. Thank you. Now, Dr. Irvine, at page 2 of your summary you note that:

...it was sensible to incorporate consideration of Aboriginal Traditional Knowledge into the Wild Salmon Policy, including in Action Step 1.1.

Action Step 1.1 is identifying the conservation units?

DR. IRVINE: That's correct.

Q And it's your view that this reflects:

...a desire to access the best available information, which can include not only genetic and ecological information but potentially also Aboriginal Traditional Knowledge.

DR. IRVINE: That's correct.

- Q Can you give some examples of how you would use Aboriginal Traditional Knowledge in the identification of CU's.
- DR. IRVINE: Sure. And as Dr. Riddell, he summarized the approach that was really developed by Drs. Holtby and Ciruna on the Identification of Conservation Units. And you will recall it started with kind of an overlay of maps, of zones, and then the next step is the inclusion of ecological information on the fish in particular areas.

So two examples were traditional knowledge, whether that be from First Nations, or people living in an area would be of use, would be on the distribution of fish within a watershed, and secondly on the timing of arrival into a watershed, or the timing of spawning. So those were the sorts of information, the types of

information that can be used to further
differentiate or alter, you know, what would
constitute a conservation unit. So those would be
two examples.
Thank you. Mr. Chamut, I wonder if I could come

Thank you. Mr. Chamut, I wonder if I could come back to again the issue of -- and I apologize, I keep coming back to operational guidelines, but it seems to have been something that's been reflected and then the policy was changed and the explanation you've given and others as to why, is I think on the record. But I want to just -- in 2004, following on your 2002 review, there was a report done by the Commissioner of Environmental and Sustainable Development of the House of Commons, which commented on your report and also commented on the Wild Salmon Policy. This is at Exhibit 88.

I just was wondering, first of all, do you specifically recall that report?

- MR. CHAMUT: I would recall the report, but I would not recall very much about the content.
- Q Okay. This is a very general question about it. If you go to page 11, Mr. Lunn, paragraph 5.1. And for a little context, this is not the first report from the Commissioner and he's commenting on -- she's commenting on previous reports. And at paragraph 5.1 on page 11 she says:

Overall, we are not satisfied with the progress made by Fisheries and Oceans Canada in responding to the recommendations we made in the three previous audits in 1997, 1999, and 2000. While many stocks are abundant, some Atlantic and Pacific salmon stocks are in trouble. We continued to identify significant gaps in managing risks.

And she the refers at page 15 -- oh, and the first bullet under 5.1 the observation is that:

The Department has not finalized the Wild Salmon Policy, which would set out clear objectives and guiding principles. The policy would also bring together biological, economic, and social factors — for fisheries and resource management, habitat protection and salmon enhancement.

Then if you go over to page 15, under the heading "Wild Salmon Policy not finalized", paragraph 5.21, she says:

In 1997, we recommended that the Department clarify the extent to which it intends to apply practices in sustainability and genetic diversity to the management of individual Pacific salmon stocks and their habitats. We also recommended that the Department develop more explicit operational objectives and targets for salmon stocks in its fishery management plans.

There seems to be a theme through here about the value of a Wild Salmon Policy and the use of explicit operational objectives and targets. And I am wondering in the context of where the Department was at this time, which was in 2004, there was consideration as to whether in its final developed version the Wild Salmon Policy really does do what your initial report suggested, and what the way it started out, and the way this report suggests is necessary. In other words, a merging of operational and scientific...

- MR. CHAMUT: Well, maybe I'm reading things a little differently, and this is where words start to matter. Your paragraph that's in front of us now, 5.21, talks about 1997. The paragraph you had up earlier was from 2004. And when I read that paragraph from the Commissioner, it struck me that she was describing exactly what the Wild Salmon Policy does, which is provides clear objectives and guiding principles. So it would seem to me that what we have produced and what has been adopted, does precisely what was being recommended at that time.
- Q Carrying on down from the last paragraph I took you to, the balance of that page deals with again some of the more explicit recommendations, I guess. She refers to the 2000 report, refers to your post-harvest review in 2002, and notes that:

The review identified --

- this is at paragraph 5.26, that review identified -

-- that there were no clear objectives for the conservation of wild salmon. There was no consensus over conversation units, goals for escapement...and acceptable risks for managing the fishery.

Do you think that the Wild Salmon Policy as it currently exists does that?

- MR. CHAMUT: Well, I guess I'm going to have to repeat myself a little bit. I said in my testimony that the Wild Salmon Policy lays out a framework for conservation of wild salmon. It does -- it does indicate what the unit of conservation -- for conservation will be, and that's the conservation unit, but it does not provide explicit numerical targets for escapement, for example.

  Q Right.
- MR. CHAMUT: And I think I've outlined the reasons for that. There is not a single escapement goal. you look at Fraser sockeye, which is your preoccupation here, escapement limits or escapement targets that are set are set annually, because there's not -- there's no uniformity in the returns year by year by year. They operate on a four-year cycle. And so you couldn't in the first instance, even if you're managing by stock aggregates, say the escapement goals is "X". would be "X" in 2001, and "Y" in 2002. So it's not something that you can set in stone and say this is your escapement target. It will vary depending on the year. It will vary depending on a whole number of factors that come into play.

And I've said previously that the idea of being prescriptive I think would be a mistake. I think the approach that is being taken provides the Department and with stakeholders the opportunity to provide advice and input to what would be an appropriate target on a year-by-year basis for managing the fishery, guided by what's in the Wild Salmon Policy, in terms of the priority of conservation, the units that are going to be — that are going to be managed, and how that's all going to come together in the strategy that is called Integrated Strategic Planning.

Through that process you end up with something, in my view, that is far more robust as a management plan than the Department simply

saying this is what is -- this is the escapement target for a particular stock, it's "X". Because one of the things I've learned is that when the Department does that, it is unanimously and strongly attacked by various user groups that they haven't listened to input, that there may be other solutions. You've ignored this factor, you've ignored that factor.

And even though consultation can be very difficult, time consuming and indeed tedious at times, it does provide us with much better decision-making. And I strongly believe that having the opportunity to look at a variety of factors and accept advice from people that are on the ground provides us with a better management plan, and we will all be the better for it, and the salmon resource will be the better for it, too.

I think you can look at a whole range of options that will provide a better outcome than simply saying, you know, prescribing a particular number. Because as everyone has gathered, this is an enormously complex issue. It's difficult to manage and it's -- it's best managed when we've had input from a variety of groups who have an opportunity to provide their advice. And as I say, I'm convinced that decision rules along the lines that you are obviously pressing on here, would not be the right way to go. And there may be a difference of opinion here, but my opinion will not change.

I'm not pressing on these, I'm looking at what has -- one of the things that this Commission has been mandated to do is to look at DFO's response to previous recommendations. And I appreciate your evidence greatly, and I just wanted to make -- put it in the context of how it -- and I think you'd agree with me it's not exactly what was recommended, and actually we haven't come to the recommendation which is pretty much the lines we've just read.

But I take it that your response, Mr. Chamut, is that the Wild Salmon Policy is a more sophisticated nuanced and appropriate response than simply something which you can write in a four-line recommendation. And if I -- and the recommendation here is Fisheries and Oceans Canada

 should finalize the Wild Salmon Policy to define conservation objectives and provide direction for the management of fisheries, protection of habitat and salmon enhancement. And I take it that the response you've just given would be the same, having heard that before.

MR. CHAMUT: Yes. And I think knowing a little bit about the way these audits are done, I mean, they send out a number of people out to various parties. In this case they would have undoubtedly sent people out to the Pacific Region. They would have talked about the Wild Salmon Policy and I'd be willing -- I'd be virtually certain that they would have talked about the sort of things that are in the report here about -- I mean it's no surprise that they would talk about operational guidelines for habitat, resource management, aquaculture and enhancement, because that's exactly what they would get from interviews from people in the region at that time.

And as I said at the outset, the thinking did evolve as time went by, but I'm pretty sure that what the -- that what was coming here was a reflection of what the -- what the current thinking was at the time within the Region, which would have been passed on to the staff that were doing the work for the Commissioner. And, you know, as I say, I think that's one of the -- one of the reasons why it's there. And secondly, the thinking did evolve along the lines of what I've -- what I've expressed.

- Q Do you recall any explicit consideration of this recommendation as this was evolving at that time? MR. CHAMUT: Within the Wild Salmon Policy?
- O Yes.
- MR. CHAMUT: No, I don't think that -- I don't recall anything where we sat down and, you know, carefully considered this as part of it. It was -- my colleagues may correct me, but I don't remember it particularly, but others may.
- Q Well, does anyone recall any express consideration of the Commissioner's report and recommendations?
- DR. RIDDELL: Brian Riddell. Mr. Commissioner, I think that it is true that we were well aware of this document. Because there was a history of comments like this, we were very aware that we needed to address these type of topics in the Wild Salmon

Policy.

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And I actually think it's very misleading to say that the document doesn't have specific conservation objectives. It doesn't have a specific value by a stock in the old terminology, but you simply have to look at the composition of the policy to see it's much stronger as a conservation policy than anything that existed in the past. It gives a very explicit commitment to the conservation of genetic diversity. It's the first time ever in a fisheries policy document. It recognizes two benchmarks for management, not just the target for optimal escapement. you a conservation level, including precaution where you incorporate the buffer for protection of the lower bound of the stock. And that it talks about a requirement to have an assessment program that's agreed by the people in those regions, First Nations, communities, fishers, others, about what the assessment framework actually is. And it gives a commitment to open, transparent processes and that provided through Strategy 4, which we'll talk about later.

Q Yes.

DR. RIDDELL: But I think it's very misleading to say that the policy does not give you explicit conservation objectives. It's simply the way people thought about them in the past in terms of having one value as the optimal escapement goal. The optimal escapement goal is not stable over time, and as we learned about it, we realize that with the uncertainty of the future, you needed to have more than a single goal and you needed to recognize the distribution of spawning populations throughout a conservation unit, not just the big goals. Not just the big populations. You needed to look at the diversity of all the populations. Thank you. Any other comments from Dr. Irvine or Mr. Saunders? No?

Mr. Chamut, the -- we've heard this described -- Dr. Irvine described it as a local initiative that became a national policy, and it's been -- it is referred to as a national policy. It was signed off by the Minister. From your experience in Ottawa, how important was this policy in Ottawa? Was there a commitment to it there?

MR. CHAMUT: Well, I can't put -- I can't put words

into the mouth of my colleagues, but I do know that at the time that I was out here working on it, the Deputy Minister was a gentleman named Larry Murray, and I can assure you that he fully recognized the importance of this policy, and he very definitely did give his personal support for it. He was very insistent that it get done, and made sure that progress was in fact being made. And then he would phone me quite regularly, "How are things going?" and so he was keeping on top of it. And I think actually as well the fact that he wanted — that he asked if I would come out here to take this on, I think reflected very much the fact that he put a high degree of importance on it.

And I would assume that following my retirement, that Paul Sprout would have even equally been an advocate for this policy, and I'm reasonably certain that he would have ensured that all of his colleagues in Ottawa would have recognized and continued to support it as a very important document. Because I think it is in many ways it is unique in terms of what it does in defining conservation for a stock that is, you know, very, very important to the mandate of the Department.

So I am virtually certain that it's recognized at a national level as a major step forward and one that deserves -- is worthy of support.

MR. WALLACE: Thank you. Mr. Commissioner, I wonder if this would be an appropriate time for the afternoon break. I can say that I think I just have a couple of questions left for each of Dr. Riddell and Mr. Chamut about implementation, which isn't really part of this panel, but they're not coming back, so then they have some insights, I think.

THE REGISTRAR: The hearing will now recess for 15 minutes.

(PROCEEDINGS ADJOURNED FOR AFTERNOON RECESS) (PROCEEDINGS RECONVENED)

THE REGISTRAR: Order. The hearing is now resumed.
MR. WALLACE: Thank you, Mr. Commissioner. Having
canvassed the participants on their availability

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to stay late, they aren't.

# EXAMINATION IN CHIEF BY MR. WALLACE, continuing:

- Q Mr. Chamut, I just want to ask a couple of reflections from -- for a couple of reflections from you from today, because we're not -- this will be our last chance to ask you these questions. So it's a little off the development topic, but you, I think, are aware of the state of implementation of the Wild Salmon Policy and, in particular, the fact that there are no benchmarks yet determined for any CU under step 1.2, and that the CU status is not being monitored under step 1.3. DO you have a reaction to that, five years later?
- Well, I would be -- my honest reaction is MR. CHAMUT: one of disappointment. I did anticipate that this was going to be a difficult job to undertake, but I did understand that over the period of five years that I would have expected there would have been more progress made. In particular, we talked about the desirability of trying to do things like pilot projects, or at least testing out some of the approaches, particularly under Strategy 4. thought that it would have been quite instructive to take a particular geographic area or management area and try to demonstrate how you would use Strategy 4 to do the sorts of things that are contemplated under the policy, and I would have expected that there would have been something of that nature that would have been completed within five years. So that's, I think, is a disappointment to me. It's probably a little bit slower than what I had anticipated.
- In your summary of evidence, you indicate that you think that coordinating the implementation of the Wild Salmon Policy would be a perfect rule for an associate regional director general. Do you have any other suggestions on what might be done to improve the likelihood and pace of implementation?
- MR. CHAMUT: Well, the first and easiest solution is probably about thirty or forty million dollars would be a good start. I mean, that would obviously be a very important contribution to progress. But beyond that, I think that what's really important is to highlight this as a

critical priority within the region, and as I sit here I'm reasonably sure that it is a priority within the region, but I'm not sure exactly where it sits among the various responsibilities that the department has to carry out, because it does much more than just manage salmon and manage salmon and -- or Sockeye salmon in the Fraser.

But I think it has to be identified not just as a responsibility of the associate RDG, but has to come from the regional director general as a priority, and I think she needs to identify someone that is going to really be accountable for pulling all the various bits and pieces within the region together to make this happen, because sometimes there are barriers between sectors, between fish management, between science, between habitat, and I think you need someone that sort of bridges all of those sectors to be able to lay down the priority and make sure that people are doing what they have agreed to do, and I think the associate RDG is probably that person.

But I'd go on to say it's -- it would be -- I don't think even that would be sufficient. is -- the Pacific region oftentimes is, I won't say ignored, but it probably has less priority in Ottawa than does -- than some of the Atlantic regions. The fishery in the Atlantic is probably one of the primary drivers of economic development, particularly in small coastal communities. There's a lot of political importance to the management of the fishery in Atlantic Canada, and that gets translated back so that most of the headquarter folks in DFO oftentimes spend more time and attention on Atlantic problems than they do on Pacific. unless there's something that's sort of a loud outcry from Pacific, I think the tendency is to oftentimes maybe ignore it a little bit. And so I think you've got to have good, strong regional structures and, at the same time, you've got to have a recognition in Ottawa, from the deputy minister on down, that this policy is really important, and the deputy's job is to make sure that resources are there to do the job and that individuals are given clear instructions, and the accountability for them to perform or to do certain things is clear. And that can be an

enormously powerful incentive for people to make sure that they focus on that particular job.

In the absence of that, there are a thousand other priorities clambering for the department's attention out here, and I know that it's oftentimes difficult to just really focus on one thing. And I think I said in my testimony, in my document that was tabled, I said that the department is really, really good at mustering the resources and the energy and the effort to deal with big crisis, but it's less effective when it comes to managing sort of an ongoing program in making sure that it gets the priority and the attention and the focus it deserves.

And so on this case, given certainly my personal view about the importance of this, I think it has to start at the top with the deputy, who needs to be acutely aware of the importance of this, and it has to translate down an accountability system that's make sure that people know that they're going to be held to account to do certain things to make sure that this policy is implemented.

- Q Thank you, Mr. Chamut. You made a comment that thirty or forty million dollars would do it. I suspect that was facetious, but just for the record, do you have a sense of what sort of infusion of operating funds might help?
- MR. CHAMUT: I think it would be unfair of me to offer a number. There's a couple of issues here that, if I have the opportunity to speak maybe just a little bit just beyond the Wild Salmon Policy, I think it's clear that if the -- the way to expedite the implementation of this policy would be to invest some new resources in it, and how much it would be, I don't know, but I'm reasonably certainly that my colleagues on either side of me would be happy to venture an estimate.

But the one thing I think this commission needs to focus on, and I expect it will at some point in its deliberations, is trying to find a way to give additional impetus to some of the research that's necessary. We spend, at present time, in our research program, it's almost entirely focused on what I would call stock assessment in local areas, and the ability and the capability to go out and actually do research on

 salmon once they leave their natal streams, in other words, where they go in the ocean, what feeds on them, what they feed on, what are the factors that influence them, that hasn't been really studied, in my estimation, since Dr. Ricker in the 1950s. The department, I don't think, has got the physical capacity in terms of vessels and probably in terms of personnel, to mount a major research program in the ocean.

But until we have a better understanding of what actually happens to these young fish when they go to sea, we're going to have a very difficult time, as a department, being able to do accurate forecasts of returns and really understand what's influencing the number of fish that came back. And we've had an excellent couple of examples in recent years, where we've predicted a low return, like this year, and we end up with the largest return on record. We've had other cases where we've predicted good returns and we get virtually nothing. And when we have those sorts of extremes, it makes resource management really, really difficult, because a lot of our management depends on that forecasting and the ability to set management and harvesting plans as the fish start to return, because, I mean, the way we harvest, we oftentimes don't have accurate or really precise information about how many fish are coming back and what their timing is, and all the rest of it.

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 --

We'll certainly be canvassing that. Coming back to the Wild Salmon Policy, I take it from your evidence you consider this to be a very important policy, and would I be correct in assuming that you would -- that, in your view, having it implemented would improve the future sustainability of Fraser River Sockeye?

- MR. CHAMUT: Absolutely. I think it's -- I mean, that's the basis of everything, I think, everyone here has been saying and, yes, I would strongly endorse that.
- Q We've heard, today, that the concepts have been around, you know, prior to the 1990s and were crystallized through the '90s, and here we are in 2010 and it's not implemented. Had their been a Wild Salmon Policy developed and implemented more quickly, could it have been done more quickly? Could it have had any impact on the decline on Fraser River Sockeye?
- MR. CHAMUT: Well, of course, it could have been implemented more quickly, theoretically, but I find that if you look at some of the lessons that Jim Irvine went through, the idea of a policy, there has to be an overall impetus to adopting a policy. There has to -- I mean, in the case of wild salmon, I think it would have been very difficult, say in the mid '90s, a policy like this would have been dead on arrival. There was not going to be the sort of support for a policy of this nature.

I think, over time, whereas we went through some of the challenges in managing not just salmon but a variety of other species, particular Coho and Chinook, we started to recognize, and a lot of our stakeholder groups and other interests started to recognize the need for significant change, and so there was a willingness to consider things that 10 years ago probably would have been unacceptable. So yeah, it probably could have been done quicker, but I do think that it was -- I think the timing, as it turns out, was probably just about right in terms of having a scientific understanding and the departmental impetus towards it, and the stakeholder willingness to embrace these sorts of changes.

- Q One of the factors which was, I think, brought in late to the policy, but is now there, is under implementation, is an implementation plan. You, I think, left immediately after the announcement, so I take it you've never seen an implementation plan?
- MR. CHAMUT: No, I haven't.
- Q And what is your reaction to the fact that none of us have seen one, either?

- Well, I know that -- I mean, I can't MR. CHAMUT: really speak to what you've just said. talked to my colleagues and I'm told that there are things associated within an implementation plan, or within an implementation of the Wild Salmon Policy, so I'll leave it to others to describe what they've done, but I think clearly, you know, putting something together that would describe, once the policy had been adopted, I think it was important to try and put something together that would basically describe, for staff members, as well as other interests, exactly what people would be doing and over what timeframe and the like. I think it would have been very helpful.
- O Do you recall how the notion of the requirement for an implementation plan got there? It was not in earlier drafts?
- MR. CHAMUT: No, it wasn't in earlier drafts. It was something that was inserted probably in the week or two leading up to the finalization of the policy. You know, we did get a lot of really good feedback from a lot of different groups, and one of the concerns that did come up was about implementation, and I thought that putting something in as an implementation plan would provide some confidence to others that the department was gung-ho and ready to go and that would actually show a commitment to implementation of the policy. So it was intended to build confidence as well as serve as a device to try and inform departmental staff about the new way of doing business.
- Q Thank you, Mr. Chamut. Yes, Mr. Saunders? MR. SAUNDERS: I wonder if I might add -- O Please.
- MR. SAUNDERS: -- something to the piece on the implementation plan? I think this policy was unique in that most policies would have stopped at the -- when we looked at that house that Dr. Irvine presented, it would have stopped at the -- probably the objectives and the principles. And what we've realized is that while we couldn't figure out all the details, the strategies, in my opinion, constitute an implementation plan, and we took it as such. There are a lot of steps in there, and so, really, that guided the department

in terms of how to go forward, was to stay within those -- move -- make progress on those action steps.

We didn't call it an implementation plan, per se, but we did develop annual work plans, and there were a series of multi-interest and First Nations stakeholder forums where we got together and we clearly heard, when we developed the policy, that you need to engage us in the implementation; you don't just stop the process that we started. So we maintained that process and took advice on how to move ahead on implementation and, in fact, we've had a lot of engagement of industries and NGOs, universities and others, in the implementation, which I know we'll deal with more.

But it may be a question of semantics about whether or not we actually -- you know, more traditional policy, where you had just laid out that high end principles and objectives, you would then put together another document, which would be the implementation plan, and I think we've got a hybrid and a different way of working that constitutes an implementation plan.

- Q Dr. Riddell, you had some involvement, I think,
  with implementation early on, and you've made
  reference to it in your -- in the summary that you
  -- in your witness summary. Can you just tell us
  your role in implementation after the policy was
  finalized in 2005?
- DR. RIDDELL: Yes. Mr. Commissioner, I was the division head for salmon and freshwater ecosystems, which was the science branch component that was responsible for advising on the Wild Salmon Policy, and we did develop a number of work plans, or implementation plans. Immediately following in your announcement news release that you showed us, there were numbers in there that were allocated for two or three years I don't remember exactly how many, to be honest, in that and those funds were allocated for a specific task done -- coordinated by the policy branch of the Pacific region. And there was an implementation team that was identified that allocated responsibilities for each of these strategies.

In particular, our science branch program was responsible for implementation of Strategy 1;

habitat looked after Strategy 2; and science branch was to develop the initial discussion paper on Strategy 3, ecosystem-based management; and there was, then, policy and fisheries management looking at Strategy 4. And the funds that you identified, or you saw identified, were allocated out over that time. And science put some additional funds in and staff that we recruited to implement and do some of the work. For example, you'll meet Dr. Carrie Holt --

O Yes.

- DR. RIDDELL: -- and she was recruited from Simon Fraser University to work on the benchmarks. So that was my responsibility.
- Q Right. That was on Strategy 1?
- DR. RIDDELL: Dr. Holt, in particular, and Dr. Holtby was also in the division that I managed.
- Q Right.
- DR. RIDDELL: Dr. Ciruna is a contractor with Nature Conservancy of Canada, and also had previously worked with the Province of B.C.
- Q What was your involvement with the implementation of Strategy 2?
- DR. RIDDELL: Science Branch had a couple of people involved. Dr. Irvine was involved. A biologist, named Ray Lauzier, was involved in advising on habitat indicators. It was largely led by a habitat group through Habitat and Oceans Management at the time.
- Q Strategy 3 is the inclusion of ecosystem values and monitoring, and you, I think, were involved in that as well. Can you just tell us a little about your experience with the implementation of Strategy 3?
- DR. RIDDELL: Strategy 3, on ecosystem-based management, this was a responsibility that science accepted involving both the biological components, with Dr. Kim Hyatt, and Dr. Irvine was involved, and we also hired an additional scientist to work on that. And then there was the state of the oceans report was also included in that activity. It was not something initiated by the Wild Salmon Policy; it was something that we were building on and already existed and that joint annual publication prepared by the ocean scientists at the Institute of Ocean Science and from the biological researchers, and Dr. Irvine is actually

the co-author of those reports at this time for 1 2 biological science. 3

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- DR. RIDDELL: That's a particular topic that has been a very slow process. I think, when we met, my discussion was I was unable to really get a discussion paper, all I really wanted to build on, and I think Dr. Hyatt's experience in ecosystembased work going back a long time has really driven them to do a little bit more than maybe we wanted. We wanted to get something out that people could look at and start building from.
- In the policy, itself, it describes, at Action Q Step 3.1, that:

Within two years, an ecosystem monitoring and assessment approach will be developed and integrated with ongoing assessments and reporting on the status of wild salmon.

Is your comment related to the failure of that to happen?

- DR. RIDDELL: Yes, I think that's a notable limitation on implementation. We haven't made any progress to that extent, although we are fully aware that that was the commitment we made when we wrote that policy.
- And the fact that that commitment was not met, you were trying to do too much at once; was that the point?
- DR. RIDDELL: Well, I think probably it comes down to that. We really didn't have to write a definitive paper; we were clearly going to get extensive comments back on anything we wrote. Dr. Irvine can probably comment on this best, because he worked closely with the team as well in that. Really, it came down to I wanted something akin to a discussion paper, a white paper about what others are doing in ecosystem-based management. We did host two workshops on development of ecosystem-based indicators, we had good participation, and then they really didn't really develop into any product or application.
- Were you involved in the drafting and action plans or respond to the Marine Stewardship Council certification conditions?
- DR. RIDDELL: The MSC certification for sockeye is all

 that was available at that time. The conditions that were provided to receive that certification relied heavily on implementation of the Wild Salmon Policy, so we were definitely -- science branch was definitely consulted on whether we could meet the expectations in the conditions, but we were not really directly involved in writing the direct response to the MSC review, so we provided input only.

- Do you recall this is a more general question coming out and I'll end pretty much here the relationship of the Marine Stewardship Council certification and the Wild Salmon Policy, do you recall when that first became an issue?
- DR. RIDDELL: To be honest, going back and thinking about the sequencing here, the MSC certification for sockeye was actually in the works for, I think, for about nine years and it actually predated -- the initiation of that predated the Wild Salmon Policy. Once the Wild Salmon Policy was accepted, then they went through another full round of reviews, the department was writing responses to comments, and I would say it was around 2007, likely, that we saw the first plan to respond to, but it's a little grey on the dates, to be honest.
- Right. Okay. So it was in people's minds through the development. It was only for sockeye, I take it; is that right?
- DR. RIDDELL: The only MSC certification and discussion is for the four sockeye fisheries they talked about: the Nass; the Skeena; Barkley Sound; and Fraser River. And all of the conditional requirements of the certification I shouldn't say "all"; I believe there was 37 in total and the majority of them related to the implementation of the Wild Salmon Policy with respect to those four fisheries.
- Q Mr. Saunders, I think you were involved with some of the relationship between the Wild Salmon Policy and the Marine Stewardship Council certification. In particular I've lost the exhibit number, but it's document 28 -- sorry, document 38 in the development binder, which is --

THE REGISTRAR: 94.

Q -- Exhibit 94. Am I correct that you had a hand in this document? It's a Memorandum for the

1 Minister relating to the announcement of the policy in 2005.

- MR. SAUNDERS: Yes, I would have had a hand in this.

  Q And there's an observation in the third bullet there about the progress towards Marine Stewardship Council certification. Can you comment on the importance of that certification in the development of the policy?
- MR. SAUNDERS: Well, I mean, I think what we recognized -- I didn't influence, at all, the actual development of the policy, but it was recognized that there was clearly -- the requirements that were developing under Marine Stewardship Council were very much in step with the Wild Salmon Policy. So there was just a recognition that one supported the other. Subsequently, I've been, in my job as the head of the salmon and freshwater ecosystem division, we've been involved with the action steps in -- as Brian was -- Dr. Riddell was pointing out earlier, making sure that we were in step and able to -- that the implementation of the Wild Salmon Policy development of benchmarks, et cetera, and the timetable for that is in step with and able to meet the requirements of Marine Stewardship certification.
- MR. WALLACE: Thank you. Mr. Commissioner, I have no more questions for this panel. It's five to 4:00. I know that Mr. Blair has timing issues, but they seem to have been dealt with. Perhaps Canada could start, or not?
- MR. TIMBERG: Mr. Commissioner, for Canada's examination, I'll provide you a brief overview. I'll be taking Dr. Riddell back through some questions arising from his presentation. I'll then be taking some notes that I've -- questions that have arisen from the Commission's examination, and then --
- THE REGISTRAR: Would you state your name, please?
  MR. TIMBERG: Sorry. It's Tim Timberg, T-i-m-b-e-r-g,
  counsel for Canada. And then, thirdly, I'll
  provide each of the witnesses an opportunity to
  review their witness summary, if they have
  anything further that they'd like to add. So
  that's what I intend to do in my examination.

# CROSS-EXAMINATION BY MR. TIMBERG:

- Q So Dr. Riddell, if you could turn back to your -it's Exhibit 97, and -- actually, sorry, I thought
  that perhaps, Mr. Saunders, if you could perhaps
  explain the second-last page, it's WSP
  implementation steps, and if you could just, for
  the benefit of the commissioner, if you could just
  provide a brief description of what each strategy
  entails? I think we've had a fair amount of
  conversation about these, but it might be helpful
  to have a brief overview of how the six strategies
  fit together?
- MR. SAUNDERS: Yes, Mr. Timberg and Mr. Commissioner. I think Dr. Irvine gave an overview about this, earlier. But, really, as it's outlined in the figure, the three strategies, 1, 2 and 3, are about providing information that's required to manage not just salmon but salmon in the context of the habitat that they require to maintain their diversity and within a healthy ecosystem.

And so the first strategy speaks to what Dr. Riddell was speaking to earlier in the day in his first presentation: what is the actual unit of salmon that we need to conserve, and getting around this lack of clarity that there's been around the stock unit.

The second strategy is around the status of habitat. So what are the key aspects of habitat that are required to maintain salmon; what are their status? And those are needed to inform the regulatory process for management of salmon habitat.

And, three, the determination of the status of ecosystems. So what are the key indicators that we require to understand the status of ecosystem and what are the values? This is one of the really key parts of the Strategy 3 is that it goes the other way. How much salmon do you need to maintain a functioning ecosystem? So for the most part our management of salmon has been about how much salmon do we need to escape to replace themselves to maintain fisheries production? This is also how much salmon, as our understanding of the importance of salmon in the ecosystem, how much salmon do we need to return into watersheds to maintain functioning populations of bears,

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eagles, and others, in addition to the returning salmon?

- Q If I could just ask, when you talk about habitat, is that habitat freshwater or marine water, or is it both? If you could perhaps just explain that concept?
- MR. SAUNDERS: Really, what we're trying to build in the Wild Salmon Policy is a management and a science process that covers egg to egg. So in the broader sense, the ecosystem and the habitat are at all -- both marine and freshwater. The focus, as we'll talk about in subsequent -- later around the implementation, has tended to be on the terrestrial, and the work that's been done to date is around the freshwater habitats and their status indicators that are required for that.

All of these three inform and come together in Strategy 4. And I know we're not — the intent isn't to talk about Strategy 4 until another day, but really it's, in my estimation, it's the heart of the Wild Salmon Policy. It's about building plans and set objectives, all the details that we're looking for that people were talking about in guidelines. Those details would be in those strategic plans.

And I think Strategy 4 - and there's an appendix, too, in the Wild Salmon Policy that outlines a process for building those strategic plans - but when I started work on the policy in 2003, I suggested that, in my mind, one of the key pieces of the Wild Salmon Policy is collaboration, and I think it's an evolving process. Collaboration has influenced the legal profession, it's influenced us in just about every aspect of how we do business, now. And I think we have a recognition in the trials that we've done in Strategy 4 that would say this new way of doing business, that's collaborative rather than adversarial, interest-based in understanding what the needs of people, socially and economically, is how we work together to come up with a net positive. So it's not about coming together to argue that we need more or less fish to go to -to be allocated or we can't have fish getting in the way of progress; it's about recognizing that we need the fish, we need functioning ecosystems, and we need an economy -- a functioning economy,

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and how do we work together. And I think that's part of the things that when Mr. Chamut talked about whether or not this policy is transformational, and I think it's a subtle -- it may be subtle. I think it's things that -- it's something that's lost on a lot of people, but it's absolutely the heart of this policy about bringing together these three pieces of information.

For instance, to understand, how do we maintain salmon across the landscape in a watershed that supports a conservation unit, as Dr. Riddell talked about. You need to bring people together to have decision-makers within the province, within municipalities and regional districts, in addition to DFO, to understand what the status of that ecosystem is and the habitat, the fish habitat. DFO brings one component of the information, but we need, within that integrated process, we need a holistic view of what a functioning ecosystem is and a way to build plans around that.

Those plans would inform fisheries management as well as habitat, and are regulatory. It would then inform -- and then the other components of the policy I think we've talked about as well, they would inform, in Strategy 5, the annual program delivery setting of annual objectives and tactics. And then Strategy 6, as Mr. Chamut pointed to, is the notion of a larger review of how well we're doing, whether the policy needs to be improved at any point.

I'll end by saying that despite five years passing and a lot of critical review of this process, I don't think I would change anything in the development of this policy and this six steps strategies that we've put forward at this point.

- MR. TIMBERG: Thank you very much. I note the time, Mr. Commissioner. I'm wondering if this is a convenient time to break?
- THE COMMISSIONER: Yes, thank you, Mr. Timberg. Just a couple of matters. Mr. Wallace, after we adjourn, if you wish, if you might canvass your colleagues as to whether you want to stretch the day tomorrow by starting at 9:45 or ending at 4:30; I leave that with you, and you could let me know --

MR. WALLACE: Thank you, Mr. Commissioner.
THE COMMISSIONER: -- if your colleagues have any

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difficulties with that. MR. WALLACE: I will canvass, now, lengths that people intend to cross-examine. THE COMMISSIONER: right. MR. WALLACE: We've scheduled the second panel to start on Wednesday morning, now. THE COMMISSIONER: I'll leave that with you to canvass with your colleagues. The other matter I wish to raise, and I don't mean to embarrass him, but on Thursday the Attorney General announced 24 members of the profession receiving Q.C. appointments, and one of those I believe is in this room, and that's David Butcher, and I wish to congratulate him. I can tell him, from personal experience, that it will gain you no more, perhaps, respect or deference, but it is a wonderful recognition of you, sir, and I congratulate you. MR. BUTCHER: Thank you very much. THE COMMISSIONER: Thank you. THE REGISTRAR: The hearing is now adjourned for the day. (PROCEEDINGS ADJOURNED AT 4:04 P.M. TO NOVEMBER 30, 2010, AT 9:45 A.M.) 

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

### Diane Rochfort

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# Susan Osborne

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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