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



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

**Public Hearings** 

**Audience publique** 

Commissioner

L'Honorable juge /
The Honourable Justice
Bruce Cohen

Commissaire

Held at:

Tenue à :

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

Monday, May 30, 2011

le lundi 30 mai 2011



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

## Errata for the Transcript of Hearings on May 30, 2011

Page	Line	Error	Correction
90	39 - 45	Second on Cultus	Saskinaw and Cultus
90	40	to get it	together

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## TABLE OF CONTENTS / TABLE DES MATIERES

	PAGE
JOHN DAVIS (Affirmed)	
In chief by Mr. Wallace	2/30
Cross-exam by Mr. Timberg	38/52
Cross-exam by Mr. Leadem	55
Cross-exam by Mr. Rosenbloom	73
Cross-exam by Mr. Eidsvik	81
Cross-exam by Mr. Harvey	84

# EXHIBITS / PIECES

No.	<u>Description</u>	<u>Page</u>
884	Curriculum Vitae of Dr. John Davis	2
885	One-page Response Statement for Sockeye Salmon, Cultus Population, dated April 21, 2004	7
886	Questions and Answers, Cultus and Sakinaw Lake Sockeye Salmon Emergency Listing Decision	8
887	Memorandum for the Minister, Emergency Listing Request For Two Sockeye Salmon Populations under  SARA	9
888	Memorandum dated May 25, 2008, to Assistant Deputy Minister David Bevan, Subject: <b>Species at Risk Act</b>	·
	( <b>SARA</b> ) Listing Decision Process for Cultus and Sakinaw Sockeye	13
A888	Timeframes for the DFO Species at Risk Listing Process (2004)	13
889	SARA Listing Summary Draft for Discussion, dated June 30, 2004	16
889A	SARA Listing Summary Draft for Discussion purposes only, dated August 18, 2004	16
889B	SARA Listing Summary Draft, dated July 20	16
890	Regional Management Committee Meeting August	16
891	16 and 17, 2004, Record of Decisions minutes Memorandum dated August 20, 2004, to Howard Powles, Coordinator <b>SARA</b> Secretariat, from Paul Macgillivray, Subject: Legal Listing Decision Materials,	
892	with attachments E-mail dated November 17, 2004, from Mary Hobbs to various recipients, Subject: Reports related to	19
9024	Cultus & Sakinaw  Rackground Information Polated to: Financial	22
892A	Background Information Related to: Financial Considerations Associated with Potential <b>SARA</b> Listing of Sakinaw and Cultus Lake Sockeye	23
892B	Financial Considerations Associated with Potential  SARA Listing of Sakinaw and Cultus Lake Sockeye	23

## - vii -

# EXHIBITS / PIECES

<u>No.</u>	<u>Description</u>	<u>Page</u>
892C	Socio-Economic Implications of the <b>Species-at-Risk Act</b> , Sakinaw and Cultus Sockeye, prepared by	
892D	GSGislason & Associates Ltd., April 2004 Financial Considerations Associated with Potential	23
	<b>SARA</b> Listing of Sakinaw and Cultus Lake Sockeye, September 10, 2004	23
892E	Draft Financial Considerations Associated with Potential <b>SARA</b> Listing of Sakinaw and Cultus Lake	
900E	Sockeye, November 9, 2004 The Feenemia Importance of France Biver Sockeye for	23
892F	The Economic Importance of Fraser River Sockeye for Commercial and Recreational Harvesters, Processors, and Coastal Communities, August 18, 2004	23
892G	Cultus Sockeye Stock Assessment/Fisheries  Management Work Group Review and Comments of: "Financial Considerations Associated with Potential <b>SARA</b> Listing of Sakinaw and Cultus Lake	20
	Sockeye" presentation, October 7, 2004	23
892H	Listing Cultus and Sakinaw Sockeye Under the Species at Risk Act, a Sierra Club Analysis of the	
893	Facts, released November 9, 2004  Extinction by Miscalculation: The Threat to Sakinaw	23
073	and Cultus Lake Sockeye, by Mart R. Gross, and others, Version 1.0, November 19, 2004	26
894	E-mail dated Thursday, November 4, 2004, from John Davis, Subject: Message for Paul and Ginny Flood - Minister's Office Briefing Tomorrow at 1530 Ottawa	20
	Time	26
895	Volume 139, No. 2. Canada Gazette Part II, Ottawa, Wednesday, January 26, 2005	27
896	Document from office of Auditor General titled "OAG Decision not to list Cultus and Sakinaw Lake sockeye	
007	salmon under the Species at Risk Act"	31
897	Memorandum for the Deputy Minister, Response to September 22, 2004 letter	34
898	A framework for integrating socioeconomic analysis in Species At Risk Act decision-making from	
	September of 2006	34

## - viii -

## **EXHIBITS / PIECES**

<u>No.</u>	<u>Description</u>	<u>Page</u>
899	Email from Wendy Watson-Wright dated April 17, 2007	36
899A	Attachment to email entitled "Biases in Legal Listing	
	Under Canadian Endangered Species Legislation"	36
900	Document titled, "Setting the Stage - Rebuilding Sustainable Fisheries for the Future, Challenges And	
	Opportunities for Fisheries Managers And Decision- Makers	45
901	Document titled "The Economics of Adapting	45
701	Fisheries to Climate Change" from a meeting in	
	Busan, Korea	45
902	Fisheries Policy-Maker's Perspective -	
	Challenges and Opportunities in Adapting	
	Fisheries to Climate Change, presentation by	
	John C. Davis	53
903	Hutchings, Walters and Haedrich, Is scientific	
	inquiry incompatible with government	40
00.4	information control?	60
904	Mooers et al, Science, Policy, and Species at Risk in Canada	62
905	Vanderzwaag and Hutchings, Canada's	02
703	Marine Species at Risk: Science and Law at	
	the Helm, but a Sea of Uncertainties	66
906	A Framework for Science and Technology Advice:	00
	Principles and Guidelines for the Effective Use of	
	Science and Technology Advice in Government	
	Decision Making, Government of Canada	70

Vancouver, B.C./Vancouver (C.-B.)
May 30, 2011/le 30 mai 2011

THE REGISTRAR: Order. The hearing is now resumed.
MR. WALLACE: Good morning, Commissioner Cohen. For
the record, I'm Brian Wallace, counsel for the
Commission, and with me is Lara Tessaro.

I'll do two things, if I may, Mr.
Commissioner, to start. First, participants will
have received, on Friday late, some documents from
Canada. We received three more documents of the
same ilk this morning. These were as a result of
a request that Commission Counsel made to the
Department of Justice only earlier this month. So
I'm in no way faulting Canada for the timing and,
indeed, I applaud them for their efforts, and
thank you very much on that.

The difficulty is that I have not yet reviewed them. I haven't even looked at the ones from this morning, nor, I suspect, have many of the participants. So my proposal is that they — oh, by the way, they relate to briefings relating to the Cultus Lake sockeye decision under SARA, so it would have been appropriate to have them here, but I think that would be unfair to everybody. We will all have a chance to review them and then discuss when and if they're to be put before you, and perhaps we have to call Dr. Davis back for a few minutes at some later date.

This week, Mr. Commissioner, today you will hear from Dr. John Davis, retired Assistant Deputy Minister, and other things, from DFO, who will talk to us about the decision not to list the Cultus Lake sockeye under **SARA**. That evidence, it appears, will go into tomorrow morning.

Starting tomorrow afternoon, we will have evidence from -- on what subsequent efforts are being made at DFO for the recovery of the Cultus sockeye. That will go into Wednesday morning and we anticipate that about early afternoon on Wednesday we'll begin our final block of evidence on the Wild Salmon Policy, first hearing from the stakeholders' panel that was hoisted from last December for lack of time, and finishing off with a day and a half of evidence on a panel dealing with Strategy 4 under the Wild Salmon Policy. So

that's a full week, and I would propose that we 1 get started. 3 4 JOHN DAVIS, Affirmed. 5 6 Would you state your name, please. THE REGISTRAR: 7 John Davis. 8 THE REGISTRAR: Thank you. Counsel? 9 MR. WALLACE: Thank you. 10 11 EXAMINATION IN CHIEF BY MR. WALLACE: 12 13 Dr. Davis, let me, first of all, ask you if you 14 can identify your curriculum vitae. You have hard 15 copies, I think, of most of these or all of these 16 documents --17 Α Yes, I can. 18 -- before you and they're on your screen as well. 19 That is your CV? 20 That is a short CV. 21 MR. WALLACE: Thank you. May this be marked, please, 22 as the next exhibit? 23 THE REGISTRAR: Exhibit Number 884. 24 25 EXHIBIT 884: Curriculum Vitae of Dr. John 26 Davis 27 28 MR. WALLACE: Thank you. 29 If I may just briefly summarize and put to you 30 what I think your lengthy career has been, you 31 retired from the Department of Fisheries and 32 Oceans in 2008? 33 That's correct. 34 You started there as a research scientist in 1971, 35 with a UBC PhD? 36 Yes. Α 37 And at UBC you did work on Pacific salmon? Q 38 Α Correct. 39 Q In research, you worked up to the position of 40 Regional Director of Science; is that correct? 41 Α That was one of my positions. 42 You then went to Ottawa and were Director Q 43 General of Pacific and Freshwater Fisheries 44 Operations? 45 Yes. Α 46 Q You became ADM of Science at DFO? 47 I was. Α

- 1 And then you were the Regional Director General of the Pacific Region? 3
  - Α Correct.

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- Prior to retirement, I understand that you took on a position of special advisor to the deputy minister on species at risk?
  - - And that was a responsibility that was national?
    - Α Yes, it was.
    - Thank you. Since retiring, Dr. Davis, I take it you have been also active and in 2010 you chaired an OECD workshop on the Economics of Adapting Fisheries to Climate Change?
- 14 Α Correct.
  - And this year, earlier, you chaired a workshop on Marine Ecosystem-Based Management Implementation for the Pacific Marine Analysis and Research Association?
- 19 Α Yes.
  - Thank you. Going back, Dr. Davis, to your position as special advisor to DFO, you had a specific role relating, I take it, to the issue of whether or not to list the Cultus Lake sockeye salmon, correct?
  - Yes. And I should explain the role I had --Α
  - Yes, please.
    - -- in that capacity. What I was asked to do, prior to retirement, by the deputy minister, was to head up the department's overall coordination of the species at risk legislation implementation. So I was in charge of a secretariat office in Ottawa where I had a small staff, and my job was to help guide the department through the early days of the implementation of the species at risk legislation. That meant being basically the channel or the post box for a lot of the paper coming in from the different regions.

Each of the regions had a process that we put in place whereby advice on listing and other activities would come forward from the regional director general under signature into my office as the sort of centre for coordination of these kinds I had a responsibility to work, then, of things. closely with each of the regions and with the RDGs and their staff, and also across the department with the assistant deputy ministers responsible for fisheries management and policy and science.

I had a responsibility to help with the liaison with ministers and across with the Department of Environment as well, with colleagues responsible for **SARA** in the Department of Environment.

And the legislation is such that for aquatic species the Minister of Fisheries and Oceans was deemed the competent minister, and for all of **SARA** the Minister of Environment was responsible, overall, for the legislation nationally.

- Thank you. Dr. Davis, in your position on **SARA**, nationally, you chaired a committee called SARCEP. Can you tell me what that is, please?
- A SARCEP was the national coordinating committee for a lot of the day to day as well as the key areas of business for **SARA** across the Department. So SARCEP was the place where representatives from each of the DFO six regions would come to the table, we would look at funding of **SARA**-related projects funding for recovery strategies, we would keep a watching brief on all of the different species moving through the process under **SARA**, and we would review various aspects of policy implementation and coordination, so it formed a sort of national coordinating body for day to day business.

And also the review body for funding decisions. I had about a 15 million dollar budget with which to disburse monies to the regions for **SARA**-related initiatives.

- Q And SARCEP was a DFO committee?
- A It was a DFO committee.
  - Q In that position, who did you work with most closely in the Pacific Region?
  - A Pacific Region had key SARA staff, so one of the people I worked with a lot was a fellow called Don Lawseth, who was responsible as a regional SARA coordinator. Also, with the people in the policy shop, Alison Webb, and legal share a web. From time to time some of the scientists and biologists, and particularly with the regional director general and the regional director general's management committee who are responsible for bringing forward SARA initiatives on behalf of Pacific Region.
- Q On the Cultus issue, did you deal with any fisheries managers?
- A From time to time, yes.

Q And who would that have been?

- A Paul Ryall is one of them, and Burt Ionson. Other folks, Greg Savard.
- Q You took on the responsibility for the **SARA** listing issue on Cultus when?
- Α Well, it's interesting, I was the director general in 2002, and at that time SARA hadn't come into force. SARA came into force in a phased way. was first introduced in 2003, and became fully effective in terms of the prohibitions under the legislation in 2004. Early on in 2002, I believe it was, COSEWIC, the arms-length committee that assesses the status of endangered wildlife in Canada, had suggested an emergency listing of Sakinaw and Cultus sockeye. So while I was regional director general, we were aware that that recommendation was coming forward from COSEWIC, and so in my time as RDG I had a contact with this particular initiative. And then, in 2003, I moved to this other position as the SARA advisor that I described to you just now.
- Q Thank you. As RDG, did you create the Cultus Recovery Team?
- A I can't recall whether I created it or whether it was in its inception before I actually was RDG. Clearly, people were concerned about weak stocks and about the status of Cultus, so it may have been starting even before I became RDG.

And a point I should make here is that what was happening was the SARA legislation, when it came into force, requires a recovery strategy to be developed after listing. However, the Department, recognizing that weak stock management is very important, was starting initiatives early on to get ahead of the game and, consequently, work was going on with respect to recovery, thinking about the kinds of challenges to recovery, and that's very important to recognize that the Department was taking that approach.

- Q Thank you, Dr. Davis. Now, let's deal with the COSEWIC emergency listing question. COSEWIC had conducted a scientific assessment in mid 2003, I think, and that was assessed as a -- sorry, and it was assessed as an endangered species at that time, correct?
- A I think it was 2002, but I could be wrong.
- Q Do you recall what the role was of the Soowahlie

1 First Nation in that exercise?

- A My understanding is that COSEWIC examined Cultus on the basis of concerns that were brought forward by the Soowahlie First Nation about the status of Cultus stocks.
- Q If I could take you to Tab 2.
- A This is Tab 2 of the Commission binder?
- Q Of the Commission's binder.
- A Yeah.

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- Q You have that? Thank you very much. Is this produced by COSEWIC?
  - A No, this is a response statement, and this is actually produced by the Government of Canada, and it's a formal requirement under **SARA** whereby the minister, on getting advice from COSEWIC, has to formally issue a response statement that specifies how the minister will deal with the recommendations of COSEWIC. So this is part of the statutory perhaps I'm using the wrong language part of the requirements of the legislation.
  - Q Thank you. And the reason for the status designations that are set out in the paragraph so headed:

The Cultus population has unique genetic and biological characteristics (migratory delay of adults at the Fraser estuary, protracted lake residency before spawning, exclusive lake spawning, late spawning date, deepwater life of fry). The lack of success with previous attempts to transplant sockeye to Cultus Lake and other lakes, suggests that Cultus sockeye are irreplaceable. The Cultus population has collapsed primarily due to overexploitation, including directed and incidental catches in mixed-stock fisheries at levels above those that can be sustained. An additional key source of impact on spawning adults since 1995 has been very high pre-spawn mortality, associated with unusually early migration into freshwater and with Parvicapsula parasite infestation. There are also ecological impacts to the lake habitat from colonization by Eurasian Watermilfoil, land development, stream channelization, nutrient input, and

May 30, 2011

recreational use. Under present conditions, there is a high probability of extinction of the Cultus sockeye.

Now, did DFO agree with that assessment at the time?

- A Yes, in the sense that COSEWIC based its information on advice provided by DFO scientists, and there is a record, of course, of that material, and DFO did not disagree with this.
- Now, what steps did DFO take in order to persuade the Minister of Environment not to list the Cultus Lake sockeye on an emergency basis?
- Well, on an emergency basis is a very, very fast track process, which I do need to describe in terms of the timeframe as to how the legislation works. What was provided to the minister was a comprehensive action plan, an outline of the action plan that the Department was going to put in place, which would allow work to be brought about that would address these issues and the reasons that the designation that COSEWIC had provided with respect to specific programs dealing with these impacts.

In addition, in the fishing plan for that season in 2004, the Department had initiated action to change the nature of the fisheries to reduce the overall impact in terms of catch of Cultus-origin sockeye.

MR. WALLACE: Thank you. Mr. Giles, could Tab 2 of the Commission's book of documents be marked as the next exhibit, please.

THE REGISTRAR: Exhibit Number 885.

EXHIBIT 885: One-page Response Statement for Sockeye Salmon, Cultus Population, dated April 21, 2004

#### MR. WALLACE:

- Q If I may ask you to look at Tab 3 of the book of documents, Dr. Davis, are those fishing measures the ones that were referred to in the questions and answers which are set out at Tab 3?
- A Okay, could you direct my attention specifically to --
- Q Sorry, the third bullet on the first page.
- 47 A Okay. This is reducing the harvest rate to 10 to

1 12 percent? 2 Q Yes. 3 Yes, that's part of the fishing measures. And 4 that entailed moving the location and the timing 5 of fisheries, as I understood it. So it was 6 adjustments to the way the fishery was prosecuted 7 in-season. 8 MR. WALLACE: Thank you. Mr. Giles, could Tab 3, 9 please, be marked as the next exhibit? 10 THE REGISTRAR: Exhibit 886. 11 12 EXHIBIT 886: Questions and Answers, Cultus 13 and Sakinaw Lake Sockeye Salmon Emergency 14 Listing Decision 15 16 MR. WALLACE: 17 If I may direct your attention, please, Dr. Davis, 18 to Tab 1. This is a memorandum for the minister 19 of Fisheries and Oceans, and it seems to have a 20 fax transmission date of, is it, February 24th, 21 2004? That's the top left-hand corner. Is that 22 generally when this issue was being considered, 23 the emergency listing request of the two sockeye 24 species, or populations? 25 February 2004? Α 26 Q Yes. 27 Α I believe so, yeah. 28 Q Now, in this memo, DFO, in the memorandum, is 29 identifying that if it can only persuade 30 Environment Canada to get sockeye into the normal 31 nine-month non-emergency listing process under 32 SARA, then socioeconomic factors could be 33 considered and perhaps trump conservation factors? 34 I wouldn't agree with that. What would have Α 35 happened, had these species been emergency listed, 36 there would not have been time for thorough 37 consultation for further development of the impacts, both benefits and costs of listing, and 38 39 there was a strong feeling that, in fact, the 40 action plan that the Department was putting in 41 place provided a buffering that season for the 42 immediate impacts and that given that this was our 43 first experience with a major listing decision in 44 SARA there needed to be more time to carefully 45 evaluate the impacts of this, and I do wish to come back, later, to a lot of the discussion that 46

was going on around just what emergency listing

and what listing under SARA implied. 1 2 So the emergency listing was a decision to be made 3

- on biological considerations; is that correct?
- Α That's correct.

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- And the intention, I think, perhaps reflected in this memorandum, is to establish that there were mitigation measures being taken to stabilize the situation and to remove the imminent threat of extirpation standard, correct?
- Yes, I agree with that. Α
- And the purpose of that was to allow this process to get into the normal listing process under SARA where socioeconomic factors can be balanced, which isn't the case in the emergency listing decision?
- And those alternatives that appear in this note set out those issues.
- MR. WALLACE: Mr. Giles, could this Tab 1 of the binder, the Memorandum for the Minister, of February 2004, be marked as the next exhibit, please?

THE REGISTRAR: Exhibit 887.

EXHIBIT 887: Memorandum for the Minister, Emergency Listing Request For Two Sockeye Salmon Populations under SARA

### MR. WALLACE:

- So having then succeeded in having the Minister of Environment not recommend -- or decide not to list this on an emergency basis, then that started what I'll call the "normal" process, correct?
- That's correct. Α
- And that process started by referral of the COSEWIC assessments to the Governor in Council on April 21st, 2004?
- Yes. Α
- So what was your role at this stage, Dr. Davis? Q
- My role, at that point in time, was as the SARA secretariat supervisor working with the regions and working with the regions to facilitate the advice and the documentation that was coming up from the region to also provide support for the work that was going on in recovery in the region, in terms of funding, and to also act as one of the key players in the review of the material, both in the regions and in Ottawa, and briefing of ministers and transmission of advice of the

system.

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In addition, there were formal documentation requirements, a regulatory impact assessment statement had to be prepared, which is part of the machinery of government associated with listing, and advice documentation that had to be brought forward.

- Now, did you become involved in technical workshops at that time with the Cultus Lake Recovery Team?
- A I don't recall being involved directly in the technical workshops in the region, at that point in time.
- Q If I may take you, please, to Tab 4, this is a document to address -- a memorandum addressed to the Assistant Deputy Minister David Bevan, of May 28th, 2004, relating to the species at risk listing decision for Cultus, and attached to it is a timeline for making that decision. Can you just briefly tell us what that timeline takes us through?
- A Yes. Would it be possible just to focus on that decision process that's on the screen?
- Q Yes, to the memo, itself? Absolutely.
- Yes. Mr. Commissioner, this is an important point here, in the sense that this really sets the stage for where we were in **SARA** and under the decision process paragraph:

The decision to list these populations or not, is the first difficult SARA listing decision facing the department. Discussions are continuing about what internal decision process should be followed for making recommendations. Draft criteria of the costs and benefits of listing have been prepared to aid in making a decision. These are the first attempts to establish some set criteria for listing decisions so that the Department can demonstrate consistency in the future. Not surprisingly these criteria do not provide guidance in the way of different criteria. (e.g. When is the likely economic impact of listing too high so that the listing should not be recommended? How to weigh economic impacts against more difficult to quantify benefits of listing such as

> protection of biodiversity and cultural and aesthetic values?)

I think, for your discussions of the Wild Salmon Policy, Mr. Commissioner, this is a very important point, because basically here you're dealing with decisions about weak stock management, how you weight these sorts of things, and how we make societal decisions with respect to the tradeoffs and the impacts of such things, and I would very much like to talk more about this type of thing as we proceed.

And Mr. Counsel, please, if we could go over the timeline? Sorry.

- Q Thank you, Dr. Davis. So the timeline that's attached to the memorandum is a nine-month timeline. That's a statutory requirement?
- A Yes. This timeline sets out how **SARA** works for the "normal" listing process for **SARA** species. So if I could just quickly take you through that, would that be helpful?
- Q Please.

Yeah. So the first step in the process is the Governor in Council's acknowledgment of the receipt of the COSEWIC assessments from the Minister of Environment. So the Minister of Environment says, "I have received that assessment," and that formally sets the clock ticking on the SARA process, which is a nine-month process. The Minister, then, is required to make a public announcement to start the nine-month impact listing, which is one of the documents you referred to earlier.

Then the process of consultation with aboriginal groups, stakeholders, provincial territorial governments, and the preparation of the results and the synthesis of those results from consultations takes place. The regions are then busy putting together the impact assessment documentation, this regulatory impact assessment statement has to accompany the final decisions, and providing advice through to Ottawa.

So I was very involved in terms of the receipt of the results of that process, the regional consultations and the activities that lead to a decision. And you can see as this timeline moves forward that the development of

listing recommendations takes place in this particular timeline, in the June to July period, and that there are processes back and forth between headquarters and the region and the national DG's committee that is reviewing these results.

During all of this time we have had a number of briefings with the minister, discussions about what SARA means from the standpoint of its implications, and a lot of dialogue back and forth within the department between all the different groups. So a key point is that there is a lot going on, and particularly with high visibility species, like Sakinaw and Cultus sockeye, a fair bit of dialogue on just what the implications of listing are.

Further into the process, there is then a requirement for that material to find its way through into Ottawa, through the ministers and into PCO and the timeline here is that, for Cultus, the regulatory packages had to be to PCO by September. So the decision-making process is late summer, PCO September, a Treasury Board decision in the early fall, first a GIC decision, which is announced in Canada Gazette I, which says this is how GIC is proceeding, a process of public comment for another 30 days, and consideration of the public comment by GIC, and then a final decision of GIC, which is shown here in the timeline in December, and the nine month period expires in January. So this is the formal lockstep process that's prescribed under the legislation.

If something is listed, immediately on listing automatic protection applies to a species, and under the legislation you cannot kill, harass, destroy the habitat of, possess a listed species unless that is permitted by an allowable harm assessment, basically a permit. And so one of the key issues surrounding this timeline was, once listed, what would be the implications of listing from the standpoint of weak stocks that are part of mixed stock fisheries and whether or not there could be any allowable harm.

MR. WALLACE: Thank you. Again, Mr. Giles, may I ask that the memorandum at Tab 4, dated the 28th of May 2004, to the Assistant Deputy Minister, be

marked as the next exhibit, and the timeline as a 1 sub-exhibit? 3 THE REGISTRAR: You wish the timeline to be as a subexhibit? 5 MR. WALLACE: Yes, please. 6 THE REGISTRAR: Okay, the memorandum will be marked as 7 Exhibit Number 888; the timeline will be marked as 8 888A. 9 10 EXHIBIT 888: Memorandum dated May 25, 2008, 11 to Assistant Deputy Minister David Bevan, 12 Subject: Species at Risk Act (SARA) Listing 13 Decision Process for Cultus and Sakinaw 14 Sockeye 15 EXHIBIT 888A: 16 Timeframes for the DFO Species 17 at Risk Listing Process (2004) 18 19 MR. WALLACE: Thank you. 20 THE COMMISSIONER: Sorry, Mr. Wallace, if I could just 21 as you a question here. You're talking about the 22 binder that I have, called Cultus Lake SARA 23 Listing Decision and Recovery Efforts from 2005 24 Onwards. Is that the binder you're referring to? 25 MR. WALLACE: No. 26 THE COMMISSIONER: It's not? Okay. 27 MR. WALLACE: This is Cultus Lake Sockeye Listing 28 Decision. 29 THE COMMISSIONER: Okay. I have a different binder. 30 MR. WALLACE: That's a problem. 31 Is there anything that wasn't clear from --32 THE COMMISSIONER: No, that was clear, Dr. Davis. 33 just trying to follow these documents and I have a 34 different binder. But we don't have to stop now. 35 I just wanted to double-check and make sure. 36 can proceed, Mr. Wallace, and during the break 37 perhaps I --38 MR. WALLACE: The documents will be on the screen, Mr. 39 Commissioner, and I apologize that you --40 THE COMMISSIONER: No, that's fine. Thank you very 41 much. 42 MR. WALLACE: -- don't have the hard copy to work with. 43 Apparently, we are able to provide one. 44 you. 45 THE COMMISSIONER: Thank you very much. Thank you. 46 MR. WALLACE: Thank you very much, Geneva. 47 You mentioned, Dr. Davis, that the SARA listing

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summary was developed over the summer for advice to the minister in August. If I may ask you to look at Tab 5, and there are three draft listing summaries there, the first dated June 30th, the second dated July 20th, and the third dated August the 18th.

Do those reflect the evolution of this decision-making over the summer?

- A Yes, they do, and they're interesting in the sense that you'll notice that they change, that in one --
- There are a number of changes, when you go through them; things are added, things are taken out, and priorities seem to change. But interestingly to me, the final conclusion of each one seems to progress from June 30th, where the recommendation is "List as endangered, consistent with COSEWIC assessment", the recommendation on July the 24th is "To be determined", and the listing recommendation at the end of the August 18th draft is, "Do not add to schedule 1 of SARA".

Do those steps pretty much reflect how the Department was thinking about this at the time? I think they do, and what they do is they represent a back-and-forth in terms of looking very carefully at that decision. Clearly, the Department wanted to do the right thing and protect biodiversity and protect species that were in trouble.

The overall impact of listing Cultus, in terms of the fishery dislocations, were somewhat less than Sakinaw sockeye, which was another species under consideration at the time, and you can see in these listing summaries that both the benefits and the costs are being evaluated, and the benefits, of course, are rebuilding weak stocks and contributing to the preservation of biodiversity, and addressing the kinds of things that the intent of **SARA** is designed around, and also there is a careful evaluation that was going on at this time of the impacts on the fishery as well, what kind of economic impacts those would be, what the dislocation of the access to the resource would be by different user groups.

At the same time within the department there was some fundamental questions being looked at. These were questions about, what is the

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implication of this legislation, which is quite black and white, overall and into the long term? First of all, as I mentioned on the timeline, when something is listed, there are automatic prohibitions against possessing, catching, harming, that kick in. If, in fact, these weak stocks continued to decline into the future, the fact that you would have an incidental catch of a listed species would be quite significant from the standpoint of the impact on the fisheries. handful of fish left in a stock that continues down, despite the Department's best efforts, best recovery plans, could lead to protracted and very serious closures of the fisheries into the future. If environmental variation, as we've seen, the very purpose of this Commission, led to very poor returns, there could be extremely drastic implications of a weak stock with respect to listing. So that was going on in terms of the review.

In addition, people were saying, "What happens if something, once listed, how does it become delisted?" and SARA's rather fuzzy in terms of what that is all about. So consequently, the long term impacts of the legislation, itself, and the prohibitions under the legislation, make it very hard for a fisheries manager or a minister to sign off a fishing plan on the listed species. And we'll get into that, I'm sure, in subsequent testimony.

Q Yeah.

And it's fundamental, I think, Commissioner, to the Wild Salmon Policy, and comes back to my earlier point about where you set the bar and how you make these decisions and how you set up processes and governance such that you can protect weak stocks, but not in such a manner that you have no flexibility to deal with something that, despite your best efforts, continues to decline.

MR. WALLACE: Thank you, Dr. Davis. Mr. Giles, I wonder if we could mark these three documents as the next exhibit and two sub-exhibits. Is that the best way to do it?

THE REGISTRAR: That's at Tab 5?

MR. WALLACE: Yes, please.

THE REGISTRAR: I'll go by the CAN numbers. CAN number 010030 will be marked as 889; CAN number 004658

will be 889A -- I'm sorry, 685 will be 889A; and 1 CAN number 006464 (sic) will be 8 --3 MR. WALLACE: Sorry, 004664? 4 THE REGISTRAR: Yes, that's correct. Will be 889B. 5 6 EXHIBIT 889: SARA Listing Summary Draft for 7 Discussion, dated June 30, 2004 8 9 EXHIBIT 889A: SARA Listing Summary Draft for 10 Discussion purposes only, dated August 18, 11 2004 12 13 EXHIBIT 889B: SARA Listing Summary Draft, 14 dated July 20 15 16 MR. WALLACE: Thank you. 17 And thank you for your description on how this 18 decision-making evolved over the summer. Now, and 19 that, I think, culminated, you suggested, in mid-20 August, with the recommendation from the region? 21 Yes, somewhere mid to late August. Α 22 And if I may refer you to the Regional Management 23 Committee meeting minutes for August the 16th and 24 17th, which is at Tab 6. And that records that 25 recommendation? 26 Yes, it does. And you'll see, there, that I was 27 present at that meeting. 28 MR. WALLACE: Thank you. Mr. Giles, could this be 29 marked, please, as the next exhibit? 30 THE REGISTRAR: Exhibit 890. 31 32 EXHIBIT 890: Regional Management Committee 33 Meeting August 16 and 17, 2004, Record of 34 Decisions minutes 35 36 MR. WALLACE: Thank you. 37 Now, that was a meeting of the Regional Management 38 Committee, correct? 39 Α That's correct. 40 And that's where that decision was made? Q 41 Α Yes. 42 Do you recall the debate at that meeting among 43 regional directors? Not at that meeting, but I certainly recall debate 44 45 leading up to this final decision. 46 Q Had national headquarters been involved in the evolution of this decision as well? 47

A Yes.

- Q And were they onside with this recommendation?
- A Yes, they were, in the sense that I just talked about a lot of the uncertainties of listing, and they were involved, and the minister had been briefed several times on the implications of the legislation as well.
- Q And you were involved in those briefings of the minster?
- A Yes.
  - Q Perhaps you could just tell us, Dr. Davis, of your briefings of the minister as this was evolving through the summer of 2004?
  - A Well, the first point in briefing the minister was to acquaint the minister with what **SARA** was all about, so we spent some time with respect to explaining the legislation and debating the implications of the legislation. I recall the minister asking about, "Well, what is the implication once I list something? What I if it happens to continue to decline in abundance over time despite our best efforts? What are the sorts of impacts associated with that?"

The minister was also aware that this advice that had led to the COSEWIC assessment came from Departmental scientists and that there were strong views in the region and from our scientists and some of our managers, that there was a need to protect biodiversity. So the minister was certainly aware of that.

The minister was also aware of the current complexities associated with managing the fishery. We talked about such things as having a change to the way that we managed the coastal fisheries, moving to a more terminal type of fishery, and doing things closer to the mouth of the Fraser The implications to change the entire River. nature of the fishery on the west coast were very, very significant from the standpoint of moving exploitation down closer to the river mouth into more terminal fisheries. That would have big impacts with respect to the capture fisheries on the approaches, down through Johnstone Strait and all of the coastal communities up the coast, and while moving to more terminal fisheries was a desirable, longer term goal, the clock was already ticking on SARA listing. So insufficient time,

really, to look at the move to more terminal fisheries. But there's other documentation which I'm sure you'll bring out, which talks about these kinds of considerations, and some of those considerations came from the recovery team as well in its interventions later in the game.

- Now, you've covered a number of things, starting with a general briefing on the implications of **SARA**, and then you've got to some quite specific things related to Cultus Lake. Were all of these the subject matter at that first briefing with the minister, or are you amalgamating a number of --
- A I'm amalgamating a number of them. And there were several briefings. First of all, "Heads up, Minister, this is what this legislation's about." You'll also see in the paper trail that there's some Notes of Advice to Minister that are for information only, and referenced to decision—making paper as well. So there's a long paper trail here.

There are also meetings between the minister and provincial ministers. In fact, there's a Council of Fisheries and Aquaculture ministers, and in September of 2004, and at other times, SARA issues came before the Council of Ministers and these same issues were being debated with the provinces, because the provinces were passing parallel legislation on endangered species and conducting their work with respect to the type of listing activities that had to take place in given provinces and territories.

So the point I wish to convey is there was a lot of discussion of all of these issues along the way.

- Q Can you recall just how often and at what times, more or less, in the process these briefings that you were involved in with the minister took place, and also who would be involved besides yourself?
- A I can't give you specific dates --
- 40 Q No.

A -- and I was hoping I'd have all the paper to find that, but there were probably three or four different sessions with the minister where **SARA** issues were discussed, as I've just recounted. There was regular dialogue between our deputy and the minister and they, of course, would talk on almost a daily basis. And the briefings of the

minister typically involved a cross-section of our ADMs, myself, the ADM responsible for fisheries management, David Bevan, who you see in the correspondence that we've talked about, and, in fact, a lot of the drafting of the advice materials that you see in this documentation came through David's shop, because he was responsible for fisheries management and this was a fisheries management issue in the region. There would be the ADM of policy and the ADM of science at those discussions. And consequently, we were able to bring the thoughts forward from the perspective of different activity areas, or different areas of functional direction within the Department.

At the same time, during all of this, there is a dialogue across between departmental officials and Environment Canada officials, because the Minister of Environment is responsible for the legislation.

- Q Thank you. Dr. Davis, we're, as always, pressed for time here, and I wonder if I could just, without taking you to these documents, just ask you to identify the documents at Tab 7, which are a list of decision materials that were forwarded to the SARA secretariat by the regional director general, in August. You were copied on this memorandum. And you've had an opportunity just to look at the materials attached to that, have you? I don't recognize that one.
- Q Tab 7?
- Tab 7. My Tab 7 doesn't seem to have that one in it, but let's have a quick look at it. I'm copied on it. Just quickly reviewing it, counsel, it looks like an accurate document. I recognize that, or at least it seems fine to me.
- Q And the attachments would have been what were attached to that material?
- A Yes.
- MR. WALLACE: Mr. Giles, may this be marked, please, as the next exhibit?
- A That may not be the whole story, though. That may be a piece of it.
- MR. WALLACE: Thank you.
- 44 THE REGISTRAR: Exhibit 891.

EXHIBIT 891: Memorandum dated August 20, 2004, to Howard Powles, Coordinator **SARA** Secretariat, from Paul Macgillivray, Subject: Legal Listing Decision Materials, with attachments

#### MR. WALLACE:

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- Q When you say "not the whole story," you mean not the whole of the attachments, or there's more to the story than what's included here?
- A Well, for example, under my Tab 7 I've got a document called, Analysis of the Benefits, Impact and Other Considerations of Listing Nine Pacific Aquatic Species, so --
- Q Is that the first attachment?
- A Oh, okay, here it is. Yeah. Good. Thank you for pointing that out.
- Q Okay? Thank you. Now, if I may take you, now, to Tab 10, Dr. Davis --
- THE COMMISSIONER: Mr. Wallace, just before you go there, just to clarify this, again, I'm not sure if I'm looking at the right binder, but I'm looking at the one that was given to me recently, under Tab 7. Under Tab 1 of that, under Tab 7, Tab 1, there's a different document than the one you've referred the witness to. Tab 2 does have the attachment that he just mentioned and you just mentioned, and Tab 1 has a Southern Boundary Restoration and Enhancement Fund document. I just want to make sure that we're all on the same page about documents. Mr. Timberg?
- MR. TIMBERG: Yes, Mr. Commissioner, Tab 7(1) that I have is the same one you have, which is different than what the Commissioner (sic) has just put forward, and Mr. Tessaro briefly showed it to me, but I actually haven't seen it and the witness hasn't really seen the cover page.
- A Mr. Commissioner, I have that document, which surprised me in that because it doesn't seem to relate to this. It's an entirely different subject matter.
- MR. WALLACE: Mr. Commissioner, the document on the screen is the correct document. There seems to have been some mix-up in some of the binders -- THE COMMISSIONER: Okay.
- MR. WALLACE: -- but that's the document that we've been discussing, and I think it's the document

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that Dr. Davis was referring to, identifying it as
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            the list of materials that was provided in August.
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       THE COMMISSIONER: Right. I was just referring to the
            fact that the document on the screen --
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       MR. WALLACE: Yes.
                          -- is not at Tab 1 of the binder.
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       THE COMMISSIONER:
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            There's a different document at Tab 1. And then,
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            at Tab 2, there is a document that seems to relate
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            to the document that's on the screen, so --
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       MR. WALLACE: Yes, the document on the screen is the
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            correct document.
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       THE COMMISSIONER: All right.
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       MR. WALLACE: And Dr. Davis was referring to that
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            document --
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       THE COMMISSIONER:
                         All right.
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       MR. WALLACE: -- the August 20th memorandum, the first
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            tab being the Analysis of the Benefits, Impacts,
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            et cetera.
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       THE COMMISSIONER: All right. And just so I
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            understand, the document on the screen that says
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            "attachments" in plural, and lists a number of
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            documents, they're not at Tab 7, they're somewhere
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            else; is that correct?
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       MR. WALLACE: I don't know what your document -- Mr.
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            Lunn, do you have the attachments to the document
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            that I just referred to?
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       MR. LUNN:
                 These are the two documents that are also
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            marked at Tab 7 for me.
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            So Mr. Commissioner, the Southern Boundary
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            Restoration and Enhancement Fund doesn't, to me,
31
            seem to relate to this at all.
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       THE COMMISSIONER: No, right.
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       MR. TIMBERG: And if I could just interject here, it
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            seems that there's just a typo, the CAN number on
35
            the Southern Boundary Restoration Enhancement Fund
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            is off by one digit. So to clarify the record,
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            I'll suggest that this Southern Boundary document
            not be included in Exhibit 891 and, for the
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39
            record, what should not be included is CAN004515.
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            Instead, if we could, Mr. Commissioner, look at
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            the memorandum, then the bottom of the page.
       THE COMMISSIONER: I can't quite see it just now.
42
43
                     The bottom of the memorandum.
       MR. TIMBERG:
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       THE COMMISSIONER:
                          Thank you.
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       MR. TIMBERG: And if we could go to the bottom so we
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            could see the CAN number there? And so Exhibit
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891, my understanding is that CAN number 004615

should be the first page of Exhibit 891, and then the second document that gets attached to it is 3 the CAN004616. THE COMMISSIONER: Which is that document on the 5 screen, right. 6 If that's clear. MR. TIMBERG: 7 THE COMMISSIONER: Right. But the balance of the 8 attachments are not part of the exhibit; is that 9 what you're saying, Mr. Timberg? 10 MR. TIMBERG: This document, 004616, is a fairly 11 lengthy document, it's 55 pages long. I see. All right, thank you. 12 THE COMMISSIONER: 13 MR. WALLACE: Yes. 14 THE COMMISSIONER: Thank you very much. 15 Thank you, Mr. Timberg. It appears that MR. WALLACE: 16 something was interleafed here, which is what 17 caused the confusion. 18 THE COMMISSIONER: Right. 19 MR. WALLACE: So thank you, then, for the exhibit as 20 Mr. Timberg described it. 21 Now, Dr. Davis, in November there seems to have 22 been some communication from Mary Hobbs, attaching 23 a number of the documents that were involved in 24 this decision-making, which were compiled their 25 list of seven documents there, starting with the 26 Socioeconomic Implications of the Species at Risk 27 Act, and then financial considerations and several 28 other documents. You were copied on that, or 29 received that e-mail and that list. 30 Were those the key documents that were 31 considered in the listing decision? 32 Yes. Α 33 MR. WALLACE: Mr. Commissioner, I wonder, then, if this 34 package could be marked as the next exhibit, the 35 documents at Tab 10? 36 How did you wish that marked, in bulk THE REGISTRAR: 37 or A, B, C? 38 MR. WALLACE: Well, I would like them to be, as long as 39 it can be done quickly, I would like it to be 40 marked as the e-mail as the next exhibit, with the 41 documents attached as the sub-exhibits. 42 THE REGISTRAR: Okay, the e-mail, itself, will be 43 marked as Exhibit 892, and the A, B, C, D, will be 44 892A, B, C, D, as shown. 45

EXHIBIT 892: E-mail dated November 17, 2004, 1 from Mary Hobbs to various recipients, 3 Subject: Reports related to Cultus & Sakinaw 4 5 6 EXHIBIT 892A: Background Information Related 7 to: Financial Considerations Associated with 8 Potential SARA Listing of Sakinaw and Cultus 9 Lake Sockeye 10 11 EXHIBIT 892B: Financial Considerations 12 Associated with Potential SARA Listing of 13 Sakinaw and Cultus Lake Sockeye 14 15 EXHIBIT 892C: Socio-Economic Implications of 16 the Species-at-Risk Act, Sakinaw and Cultus Sockeye, prepared by GSGislason & Associates 17 18 Ltd., April 2004 19 20 EXHIBIT 892D: Financial Considerations 21 Associated with Potential SARA Listing of 22 Sakinaw and Cultus Lake Sockeye, September 2.3 10, 2004 24 25 EXHIBIT 892E: Draft Financial Considerations 26 Associated with Potential SARA Listing of 27 Sakinaw and Cultus Lake Sockeye, November 9, 2.8 2004 29 30 EXHIBIT 892F: The Economic Importance of 31 Fraser River Sockeye for Commercial and 32 Recreational Harvesters, Processors, and 33 Coastal Communities, August 18, 2004 34 35 EXHIBIT 892G: Cultus Sockeye Stock 36 Assessment/Fisheries Management Work Group Review and Comments of: "Financial 37 Considerations Associated with Potential SARA 38 39 Listing of Sakinaw and Cultus Lake Sockeye" 40 presentation, October 7, 2004 41 42 EXHIBIT 892H: Listing Cultus and Sakinaw 43 Sockeye Under the Species at Risk Act, a 44 Sierra Club Analysis of the Facts, released 45 November 9, 2004 46 47 MR. WALLACE: So just for the record, the next document

1 that I have is CAN4607. 2 THE REGISTRAR: That's correct, that will be number 3 892A. 4 MR. WALLACE: 892A. 5 THE REGISTRAR: It follows the alphabetical sequence 6 down. 7 MR. WALLACE: Okay, thank you very much. 8 THE REGISTRAR: Is that quick? 9 MR. WALLACE: Thank you. And we can fill in the blanks 10 later. 11 Dr. Davis, if I may refer you to Tab 11 in the 12 book, this is not in ringtail, a document produced 13 by one Mart Gross and others, in November 2004, 14 entitled, Extinction by Miscalculation: 15 Threat to Sakinaw and Cultus Sockeye Salmon. 16 you familiar with this document? 17 Α Yes, I am. 18 And it was produced in response to the decision 19 not to list, correct? 20 Α It was produced in response to, I think, the recommendation --21 22 Q Right. -- not to list, not the final decision. 23 Α 24 Q Yes, the final decision was January, correct? 25 Α Correct. 26 Q Yes. 27 Correct. Α 28 And if I may just take you to a couple of the 29 observations at page 2, the criticism relates to a 30 failure to use benefit cost analysis, and it 31 quotes from the recommendation: 32 33 "unacceptably high social and economic costs," and to justify this conclusion he states that "[1]ost benefits to fisheries are 34 35 36 estimated at \$125 million". 37 38 And then he goes to on to suggest that that fails 39 to consider the benefits. Is that a fair 40 criticism? 41 Yes, I think it is. It was a short-term Α 42 assessment of the impacts, but as I mentioned 43 earlier, when I was looking at those listing 44 summaries, there were benefits. They were 45 described qualitatively. 46 And the next item, B, he's also critical, if I may 47 summarize, that the \$125 million number to the

industry is a revenue number as opposed to a net income number, to use accounting terms; is that fair?

- A Yeah, I'm not an accountant, but I think I understand the gist of that.
- So basically he's saying that overstates it, because it doesn't consider the cost in obtaining that revenue; is that a fair criticism?
- A I think that's a fair criticism, but one does have to recognize that the benefits are longer term, in terms of rebuilding, so they're beyond the timeline of the four-year impacts that are associated with those numbers, and they do require that the stock actually is capable of rebuilding itself and recovering. So the benefits are -- can be laid out on a sort of if they rebuild, then here are the kinds of benefits.
- In your view, does the Department of Fisheries and Oceans have the capacity to do effective socioeconomic analyses?
- A In my view, the Department needs more capacity to do socioeconomic analysis. I'll explain in the sense that when I first started with the Department, we had a lot more economic internal capability than in later years, and so the Department had purposely downsized some of its economic capabilities within and, as I hope to come to later in my discussion here, making choices about biodiversity and making choices about impacts on people is all about being able to portray what will come in the future, and having a good socioeconomic analysis is very important.

And we've learned a lesson with respect to all of this process that we've been going through here with respect to the need for more robust socioeconomic analysis, more economic thinking, and the involvement of sociologists, because we're dealing with people. We manage fisheries resources on -- we think we manage fisheries resources on the basis of biology. Biology informs, but all our regulatory tools are tools to deal with people. "You can't fish." "This area is closed." "There's a time and area closure." So we're basically changing human behaviour through the management regime, and it's a very important aspect of how you set out your policy, and I suggest it's a very important consideration

for the Wild Salmon Policy implementation. MR. WALLACE: Thank you, Dr. Davis. Mr. Giles, can we

mark the document by Dr. Gross and others as the next exhibit, please?

THE REGISTRAR: Exhibit 893.

EXHIBIT 893: Extinction by Miscalculation: The Threat to Sakinaw and Cultus Lake Sockeye, by Mart R. Gross, and others, Version 1.0, November 19, 2004

#### MR. WALLACE:

- If I may ask you to turn to Tab 12, Dr. Davis, it starts off as an e-mail, forwarding an e-mail from you, and the e-mail from you starts halfway down the page. As I read it, it's a response to a criticism that socioeconomic studies were not made available for discussion earlier in the process, and in it, as I read it, you are of the view that that would have been a good thing; is that correct?
- A Yes. If you can see at the bottom of that memo, I'd like to emphasize the final point, which is on the bottom of the screen.
- Q Yes.

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A lesson from all of this is that we need to find a way to do socio-economic impact assessment much earlier in the listing process for upcoming candidates, share the analysis, seek feedback, and input the results along with the COSEWIC advice. This would help avoid these kind of situations.

So, you know, getting that earlier into the listing process and doing it in a thorough way was an important lesson learned here.

MR. WALLACE: Thank you. I wonder, Mr. Giles, could we mark the e-mail of Thursday, November 4th, as the next exhibit, please?

THE REGISTRAR: Exhibit 894.

EXHIBIT 894: E-mail dated Thursday, November 4, 2004, from John Davis, Subject: Message for Paul and Ginny Flood - Minister's Office Briefing Tomorrow at 1530 Ottawa Time

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       MR. WALLACE:
            Your comment at the end is for more general
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            application of this concept. Would you also agree
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            that the analyses and the trade-offs relating to
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            socioeconomics, whether you're talking Cultus Lake
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            or another consideration must be explicit?
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            I think people need a lot more information to make
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            these kinds of choices, and so one needs, in a
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            socioeconomic analysis, a good, solid
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            socioeconomic analysis that looks at benefits and
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            costs, is peer reviewed, and is robust in the
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            sense that it is there to help people make the
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            right kind of decisions for the future.
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       MR. WALLACE:
                     Thank you. For the record, then, the
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            next document is the Canada Gazette of January the
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            26th, 2005, including the reasons relating to the
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                                 This is a government
            listing decisions.
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            document, Mr. Commissioner. I think it would be
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            convenient, at this point, just to mark it as the
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            next exhibit. It's the document, the Canada
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            Gazette Part II reflecting the listing decisions
22
            and the reasons supporting --
23
       THE COMMISSIONER: Do you know the tab number, Mr.
24
            Wallace?
25
       MR. WALLACE:
                     It's at Tab 14, at least in my binder.
26
       THE COMMISSIONER: It's not here, but that's fine.
27
       MR. WALLACE: Mr. Giles?
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       THE REGISTRAR: Yes, Exhibit 895.
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                 EXHIBIT 895: Volume 139, No. 2. Canada
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                 Gazette Part II, Ottawa, Wednesday, January
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                 26, 2005
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34
       Α
            Mr. Wallace, if I could point out, this is Gazette
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            II, so this is the Gazette with the final
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            decision. So Gazette I has announced the
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            minister's --
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            Yes.
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       Α
            -- recommendation, and Gazette II incorporates the
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            feedback from all of the different groups with
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            respect to the recommendation not to list.
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            Thank you, Doctor, that's helpful. Dr. Davis, may
       Q
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            I ask you to go to page 114 of Exhibit 895?
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            annex sets out the -- this is in the annex to the
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            decision. Annex 1 sets out the reasons for not
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            adding Cultus, and it only refers to financial
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analysis, not any social or socioeconomic

analysis; is that correct? 1 Α I'd have to look right through it. You're 3 probably correct, yeah. 4 And I'd also suggest it reflects the use of the 5 \$125 million figure that was criticized 6 previously? 7 That is there, yeah. I think earlier in the 8 document, too, you'll see reference to the interventions from the other parties, which talk 9 10 about the lack of the robust socioeconomic 11 analysis. And if you look at page 103, you'll see 12 some of that summarized. 13 Q Thank you. And 102 as well? 14 Α Yes, that's correct. 15 And this was done entirely on the basis of the Q 16 four-year analysis that you described? 17 The coming up with the number was done on the Α 18 basis of the -- and, of course, what was happening 19 here, too, is Sierra Club tendered their 20 assessment, and you'll see reference to Sierra 21 Club in here, where they criticized the 22 limitations of that short-term assessment. 23 There's reference to the stringent fishery Q Right. 24 restrictions in the document. Was that the 10 to 25 12 percent that were imposed in 2004? 26 Can you tell me where that is, Mr. Wallace, Α 27 please? 28 Q That's at page 104. 29 Yes, that refers to the changes, I believe, that 30 were made in the fishing arrangements on the coast 31 to try to protect Cultus, and it has a bearing on 32 the earlier information that I was describing that 33 relates to what the impact of listing would be with respect to allowable harm and the kinds of 34 35 implications of that. 36 But as part of the recovery to avoid the emergency listing, there was an imposition of a limit of 10 37 38 to 12 percent, so those are the numbers we're 39 speaking of here? 40 Yes. Α 41 Okay. Do you know if those exploitation goals 42 have continued?

I don't know what's happening in the most recent

years, but I know that there was, I think, after

the 2004 decision, a higher exploitation rate as a

result of differences in what happened during the

season in terms of timing and that sort of thing.

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So while the department was trying to achieve 10 to 12 percent, I believe there was a higher exploitation rate.

MR. ROSENBLOOM: Excuse me, Mr. Commissioner, I am Don Rosenbloom, appearing for Area B and D. I cautioned my friend, Mr. Wallace, and Mr. Timberg, that I would rise to raise a concern that I have as to where this evidence might go.

I take the position that this Commission cannot go behind the decision of the Governor in Council of the Cabinet, nor the Minister of Environment, in respect to the decision that was made not to list the two sockeye that we are focused on here. I have reviewed the Order in Council. It certainly permits the Commission to investigate the policies of the Ministry of -- of the Department of Fisheries, the DFO. I see nothing that allows the Commission to look at the policies of the Ministry of Environment or their reasons for making the recommendations to Cabinet that resulted in the Canada Gazetting of the decision.

I fully respect the fact that this Commission has a right and an obligation to review DFO's involvement in respect to this process, to review DFO's recommendations, to review the Minister of Fisheries' participation in the decision-making, but when it comes to the decision -- or, excuse me -- yes, the decision of the Minister of Environment, to make his or his recommendations to Cabinet and the Cabinet decision, I say that this Commission cannot go behind that decision, as Gazetted, and to analyze it in terms of whether it was or was not appropriate. I don't see that in the Terms of Reference.

I rise, now, as a general comment to the direction that this might be taking and ask for your consideration. I don't want to make a big thing of this and I don't want to spend hours arguing out a jurisdictional issue, but I wish to sensitize the Commission to the fact that, certainly from my perspective, there are some limits to your Terms of Reference in terms of where you can review policies of ministries other than DFO. Thank you.

MR. WALLACE: Mr. Commissioner, all of the questions, I think, that have been asked and answered, relate

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to DFO's advice, recommendations and involvement. This started with COSEWIC looking at advice that came from DFO on the biological status, and throughout we've spoken of DFO's capacity to do things and what their recommendations were. So in my submission, this is all well within your Terms of Reference as a consideration of the policies and practices of DFO.

Mr. Commissioner, with that interruption, if we could have a break at this point, we can clean this up in a very few minutes, I think.

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

(PROCEEDINGS ADJOURNED FOR MORNING RECESS) (PROCEEDINGS RECONVENED)

THE REGISTRAR: The hearing is now resumed. MR. WALLACE: Thank you, Mr. Commissioner.

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

- Or. Davis, I asked you a question about wherein -on the Canada Gazette, part 2 at page 104, and
  there's a reference there to the stringent
  fisheries restrictions. The other point made in
  that sentence is that there will be habitat
  restoration. Has there been any habitat
  restoration undertaken by DFO at Cultus from the
  date of this, 2005, to your departure in 2008?
- I'm not entirely clear of all the details, Mr. Wallace, with respect to how they've rolled that out. But my understanding at the time was that this was a comprehensive package of measures. It included habitat work, it included the milfoil, it included the predator controls, the changes in fisheries management. So I think that might be better addressed to people who are actively involved in the restoration work in subsequent testimony.
- Q Thank you. Dr. Davis, may I take you to Tab 16, please. This is a petition to the Auditor General and Commissioner of the Environment and Sustainable Development made by the Sierra Club dealing with a suggested flawed socioeconomic analysis. You're familiar with this submission, this petition?

1 A Yes, I am. 2 O And at the

- Q And at the Sierra Club's request, that was referred by the Auditor General to DFO for response. Were you involved in that response?
- A I wasn't involved in the direct preparation of the drafting of the response. I was certainly aware of it and aware that the Department was preparing it. Again, it was like the listing material, the advice coming up through the Department from Pacific Region and through to headquarters personnel. So certainly in terms of the overall processing of paper and that sort of thing, yes.
- You've had a look at that, and does that reflect the Department's views as you recall them at that time?
- A Yes.
- MR. WALLACE: Mr. Giles, may the document from the office of the Auditor General be marked, please, as the next exhibit.

THE REGISTRAR: Exhibit 896.

EXHIBIT 896: Document from office of Auditor General titled "OAG Decision not to list Cultus and Sakinaw Lake sockeye salmon under the Species at Risk Act"

#### MR. WALLACE:

- Your interest in SARA was national. Were there particular issues of -- or challenges to dealing with SARA in the Pacific Region?
- A I wouldn't say they were unique to the Pacific Region. There's certainly the challenges dealing with **SARA** related to any mixed-stock fishery regardless of where it was in the country with the potential for interception of listed species within the mixed-stock fishery.
- Q At Tab 8 of the book of documents is a memorandum for the Deputy Minister relating to a response to a letter from the Deputy Minister of British Columbia's Ministry of Water, Land and Air Protection regarding species at risk. Were you involved in producing that memorandum? It's dated September 2004.
- A Right. I wasn't involved in the actual production of the memorandum, and looking at the signatures on it, it appears to have come from the policy shop within DFO. Those are people within the

1 policy shop.

- You were implicated in the bottom line on the last page in the sense that -- were you consulted on it?
- A Yes.

- Q Did you have any discussions with British Columbia with respect to the application of **SARA**?
- A Yes. As I mentioned earlier, there was a lot of federal/provincial discussion that went on with respect to SARA because of the provinces passing their own parallel legislation. These took place in the Canadian Council of Fisheries and Aquaculture Minister's forum as well as bilaterally and directly with provincial employees, so I definitely talked to Gordon Macatee who was the Deputy listed here, and Bud Graham, who was one of the senior managers working for Gordon.
- What was the province's position on the listing of Cultus and Sakinaw?
- A Well, in a nutshell, the province was very concerned about the economic impacts of a listing decision. The province felt that the **Fisheries**Act provided the necessary powers, wherewithal and flexibility to deal with weak stock management and the recovery of endangered species. The provinces across the country, in many respects, felt that the **Fisheries Act** might be a better instrument for this type of application than **SARA**, because of the difficulties with the overall allowable harm aspects and the prohibitions that were automatic when something was listed.

The province - all the provinces basically - have a strong link to the economic activity within a province and to jobs and to dollars and income and the future of communities and to the people that live therein.

- And DFO's response is set out in that memorandum to the Deputy Minister. It suggests noting the need with a specific role for **SARA**, page 2.
- A Yes.
  - Q Correct?
- A Yes. Sorry, could you take me to that?
- 44 Q Page 2 of Tab 8.
- A Okay, yes. It's the need for addressing outstanding policy issues to ensure the full implementation.

1 No, the top of the page, "DFO Position" [as read]. Q 3 Unlike the **Fisheries Act** the provincial 4 legislation SARA provides recovery 5 strategies... 6 7 And so on. It was identifying specific benefits 8 or addition protection of SARA. 9 Α Right, yeah. And in fact you can see here that 10 there's a complementarity (sic) between the 11 Fisheries Act and the kinds of things that SARA 12 calls for. 13 And throughout your tenure at DFO, that remained 14 DFO's position on SARA. 15 It was certainly a very important aspect of it, 16 that we had powerful tools under the Fisheries Act 17 to do a lot of this work. 18 Is there anything in the memorandum with which you 19 disagree? 20 Now, that's a hard question to answer --Α 21 Of course. Q 22 Α -- without going --23 It's a short memorandum. Q 24 Α All right. 25 Q In looking at the DFO position on page 2. 26 Top of page 2? Α 27 Top of page 2, on issue 1. 28 MR. TIMBERG: Mr. Commissioner, I'm wondering if my 29 friend's pursuing that question if the witness 30 could be provided some time to look at the 31 document more closely. 32 MR. WALLACE: There are four bullets at the top of page 33 2 dealing with the relationship of **SARA** to the 34 Fisheries Act and that's what I'm addressing. 35 I think those four bullets address the Α 36 relationship between the two pieces of legislation 37 and the various types of tools and measures that 38 can be used to deal with weak stock management and 39 the recovery of endangered species and the kind of 40 complementarity that I mentioned. 41 MR. WALLACE: Thank you, Dr. Davis. Mr. Giles, could 42 we mark this one, please? The memorandum to the 43 Deputy Minister. The CAN number is 9107.

THE REGISTRAR: Exhibit 897.

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EXHIBIT 897: Memorandum to the Deputy
Minister, Response to September 22, 2004
letter

#### MR. WALLACE:

- Q Almost done. Tab 17, please. This is a draft for discussion, a framework for integrating socioeconomic analysis in *Species At Risk Act* decision-making from September of 2006. Was this draft ever finalized?
- A I believe it was. I mean, this says "Draft" but certainly a framework for integrating socioeconomic analysis in *Species At Risk Act* decision-making was an outcome of what we've just discussed.
- Q Right.
- A We recognized the limitations and you saw from my email that we needed to do this type of analysis earlier. And so as a result of the concerns and the concerns brought forward by the recovery team in the region, talking to my colleagues in Ottawa, we agreed we had to have a more robust policy framework for socioeconomic analysis, and this draft is the result of that work.

What we did is prepare this type of documentation which would form the template for future species coming forward through the **SARA** process.

MR. WALLACE: Thank you, Dr. Davis. May that document please - CAN 285130 - be marked as the next exhibit, please.

THE REGISTRAR: Exhibit 898.

EXHIBIT 898: A Framework for integrating socioeconomic analysis in *Species At Risk Act* decision-making from September of 2006

#### MR. WALLACE:

- Q And finally to Tab 19. This is an email that attaches -- it's an email to you from the ADM of Science and it attaches a publication by Mr. Hutchings. Who is he?
- A Dr. Hutchings was the chair of COSEWIC, I believe, at that time.
- Q Mooers, I think, is at SFU, correct?
- 46 A Can't remember, but you're probably right.
  - Q I don't know who Mr. Prugh is, but do you?

- A Sorry, I'm a little confused. Which document -- Q Oh, sorry.
- 3 A -- are we looking at, sir?
- Q It's the attachment. The names are on the last page. Oddly, they're in the middle, in the centre column.
  - A So are you talking about the document entitled, "Biases in Legal Listing Under Canadian Endangered Species Legislation"?
  - Q Correct.
- 11 A Okay.

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- 12 Q So Dr. Mooers was chair of COSEWIC -- sorry, Mr. Hutchings is chair of COSEWIC.
  - A Or was. The time frame of this document I think is later, 2008 perhaps, something like that. In any case, Dr. Hutchings had --
  - Q Attached to a memo -- yeah, the email is dated April 2007.
- 19 A Okay.
- 20 Q Am I correct that M. Festa-Bianchet is a former 21 COSEWIC chair as well?
- 22 A Yes.
  - Q So these are credible authors of this publication?
  - Oh, they're certainly people who played a very key role in COSEWIC, and as such, were respected and credible, yeah.
  - Q And you received a copy of this email? It's addressed to you and others.
  - A Yes.
    - MR. WALLACE: I wonder if that may be marked as the next exhibit, please.
    - THE COMMISSIONER: What is it you're marking, Mr. Wallace?
    - MR. WALLACE: Oh, I'm sorry, I'm marking the email and the attachment so that would be an exhibit, sub-exhibit for -- the email is from Wendy Watson-Wright to a number of senior DFO officials including Dr. Davis and it attaches a paper entitled "Endangered List Biased Studies as Researchers Claim Animal" -- oh, I'm sorry.
    - A I'm having a little trouble seeing exactly what email we're talking about too.
    - Q Sorry. The attachment is the document CAN 264159 entitled "Biases in Legal Listing Under Canadian Endangered Species Legislation."
- THE COMMISSIONER: Yes, I have that one in Tab 19. I also have other pages in Tab 19 and I don't know

whether you're marking all the pages or just that article.

MR. WALLACE: The covering email has -- included in it was the document that I was looking at previously, "Endangered List Biased Studies as...". That appears to be part of the email along with some quotes from other news sources, and then the document that's attached is the one entitled "Biases in Legal Listing Under Canadian Endangered Species Legislation," and I would ask that the email, including the embedded documents be marked as the exhibit with the attachment, "Biases in Legal Listing Under Canadian Endangered Species Legislation" be marked as a sub-exhibit.

THE REGISTRAR: As a separate one?

MR. WALLACE: As a sub-exhibit. So the email is the exhibit, the sub-exhibit is the...

THE REGISTRAR: That's correct. The email will be marked as Exhibit number 899 and the subattachment will be marked as 899A.

EXHIBIT 899: Email from Wendy Watson-Wright dated April 17, 2007

EXHIBIT 899A: Attachment to email entitled "Biases in Legal Listing Under Canadian Endangered Species Legislation"

## MR. WALLACE:

Q I'd just like to ask you, Dr. Davis, as a final point, if you can go to that Exhibit 899A, and in particular, page 2, under the discussion -- sorry, if I may go to the covering email. The authors under "Discussion" on page 2 of the Exhibit 899A in the third column, the author said:

We outline two factors that seem to have contributed to the taxonomic and geographic biases in legal listing decisions under Canada's endangered species legislation. The first is a reluctance by wildlife management boards and the Department of Fisheries and Oceans to accept the additional stewardship responsibilities required by SARA. The second pertains to deficiencies in the costbenefit analyses that precede the legal listing decisions.

Do you agree with those two? 1 Α No, I don't, actually. With respect to wildlife 3 management boards in the north, those are special 4 in the sense that there are wildlife management 5 agreements and those boards are set up with much 6 more independent powers than you'll find in the 7 provinces. There is in fact a process of 8 disallowance which involves the wildlife 9 management board making a decision in the north, 10 and the Minister deciding whether the Minster 11 wishes to agree with or disallow them, with 12 reasons, and that's all set out in a formalized 13 way. 14 So that's an issue, and the issue here is 15 with respect to some of the species that were 16 coming before the Minister of Environment, like 17 polar bears and things. I think they're 18 commenting on that type of decision and process. 19 And then the idea of the Department of 20 Fisheries and Oceans not accepting stewardship 21 responsibilities, I totally disagree with that in 22 the sense that we were out ahead of SARA. 23 Recovery plans were being developed. Money was 24 being attributed towards this work in a 25 comprehensive way, and the Fisheries Act was being 26 used. I would suggest, sir, that everything was being done with respect to the recovery activities 27 28 that would have been done under a SARA listing and

to attempt to rebuild these stocks.

It comes back to the idea of the complementarity of the legislation.

MR. WALLACE: Thank you. Thank you, Dr. Davis. Mr. Commissioner, those are my questions for Dr. Davis. Mr. Timberg, I think, is next.

THE COMMISSIONER: Can we get some time estimates from you, Mr. Wallace, about what's coming?

the Fisheries Act was an effective tool in order

MR. WALLACE: We have time estimates. I have gone on too long. Mr. Timberg, we have an estimate and allocation of one hour for him, the same for Mr. Leadem. Mr. Eidsvik has requested some time; I see he's not here. Mr. Rosenbloom has asked for 20 minutes, Mr. Harvey has asked for 15, Ms. Gaertner for 60 to 90, but we're going to ask them to restrain themselves. We expect Dr. Davis not to finish today, but to finish tomorrow during the morning.

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THE REGISTRAR: Mr. Wallace, Mr. Eidsvik is here. 1 MR. WALLACE: Oh, I'm sorry. Thank you. 3 THE COMMISSIONER: Can I just ask you to keep in mind, 4 whatever your timetable is, to ensure that he does 5 finish by the time you have allocated to him. 6 MR. WALLACE: Yes. 7 THE COMMISSIONER: Thank you. 8 MR. WALLACE: Thank you. 9 MR. TIMBERG: Yes, and for Canada, Tim Timberg and my 10 colleague, Geneva Grande-McNeill. 11 Mr. Registrar, if we could perhaps quickly 12 pull up Exhibit 885 that was entered this morning. 13 If we could go to the middle section, 14 "Conservation Activities Underway". 15 16

## CROSS-EXAMINATION BY MR. TIMBERG:

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- So, Dr. Davis, this morning Mr. Wallace read from the top of this document with respect to the statements there, and you were explaining some of the conservation activities underway. I think you were not certain as to when those conservation I'm wondering if this activities started. document assists you?
- Yes, it does. I had recalled it was early and this specifies under that heading 2001.
- Okay. And we will be getting to the details of the recovery efforts, but for just the purposes of this conversation, could you just give the Commission just a brief overview of those?
- My understanding, Commissioner, of the recovery efforts being put in place initially in 2004 related to reductions in the fishery and changes in the fishery in order to reduce the incidental catch of Cultus-origin fish. These recovery activities, which can be elaborated on much more by regional specialists, entailed a suite of things that were being done to recover the Cultus fish, looking at the habitat, the upwelling of groundwater in the area, the predation that was going on in the lake with respect to a predator fish, the invasive milfoil weed that was part of the changes that were occurring in the habitat, the use of the spawning area by the fish, a captive brood stock program which entailed rearing fish and releasing young progeny into the system. Consequently, quite a wide array of activities

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that were being done.

These came forward as proposals to our SARCEP committee. We funded these proposals and I insisted that that funding carry on into subsequent years.

- Q All right. And the funding then is -- when you say it comes from SARCEP, so that was national funding under **SARA**.
- A Yes, that was the funding administered under the SARCEP program.
- All right. So the funding for these programs was coming from **SARA** nationally, and the basis for which this was -- why were these put in place?
- A These were put in place because COSEWIC had identified the concerns with respect to the status of these stocks, so whenever we got recommendations from COSEWIC that went under the SARCEP process, regions were to come forward with their recovery strategies, proposed budgets and propose the nature of the sorts of things that would be done to initiate the recovery. We would then consider those budget requests and fund them.

In addition, in each region, regional staff and regional salaries and other activities augmented the allocation from the SARCEP monies towards recovery.

- All right. In your experience, then, how do you see the **SARA** and the **Fisheries Act** working together?
- Well, actually, **SARA** provides the incentive to identify the problem, so in this case, departmental scientists following the **SARA** process identified concerns with respect to stock status. COSEWIC provided its assessments which alerted the government of Canada to these concerns, and the **SARA** approach, the funding that I had allocated for **SARA** allowed us to mobilize funding and use that towards recovery.

The **Fisheries Act** provided the wherewithal to administer the fisheries in a way that was designed to reduce the impact of fishing on endangered species, and the **Fisheries Act** provided the mechanisms, the regulations, the enforcement, the protection in order to be able to protect the fish.

So in fact you had a toolbox of two pieces of legislation that could be used.

- Q All right. And that was back in 2004 when that decision was made. I'm wondering if you could assist us as to how the Wild Salmon Policy that was passed in 2005 would fit with the **SARA** legislation?
- A That's a good question because essentially, in addition to making the decisions that I've talked about this morning, the Department was busy preparing the Wild Salmon Policy, and the nature of the Wild Salmon Policy is to address weak stock management. It's all about trying to decide which components of the individual very complex fish runs need to be managed. Hence the concept of conservation units under the Wild Salmon Policy. How do we define the biodiversity that's there? Where do we set the bar with respect to what level of biodiversity you manage to?

This is a very interesting and very important point for the Commission to think about in the sense that if you are to protect very fine, very small levels of biodiversity, or very small runs, you have to set the bar at a very high level. That means you can't allow much exploitation on those runs, and consequently you have to have a much, much tighter management regime for the fishery.

However, to create the necessary basket of biodiversity, you need to be aware of these different runs, protect them the best you can, and develop a management regime that in fact allows you the flexibility to identify conservation concerns. That requires working with First Nations, the stakeholder groups, everyone in terms of choices.

Mr. Commissioner, I think this is a nub of your task here is where do you set the bar? How do you make these choices? What information do you use to enforce and to address those choices? And what information do you put before Canadians to make choices about biodiversity?

Socioeconomics we've talked about a lot, and there are winners and losers in all of this. There's the whole issue of a viable commercial and recreational and First Nations fishery. If you set the bar at such a level that those kinds of activities cannot proceed, then we have given up important socioeconomic aspects of the country.

If you set the bar too high in the sense of, yes, let's go gangbusters on the big, powerful stocks, we will lose biodiversity and genetic diversity that may be very, very important to allow salmon species to cope with what's to come.

I do want to get to the point of what I think is coming and how one should address surprises and concerns about uncertainty.

- Q Okay. What then have we learnt from the Cultus Lake decision that we can apply to the WSP policy and future stocks of potential concern.
- A Well, we've learned that we need to do a better job and a quicker job of the socioeconomic assessments. We need to carefully lay out the costs and the benefits in a very clear way. We need to have that information which helps inform decisions about conservation management plans, and we need to be able to convey that to all of the different people who are affected by it.

One area that I think is very important is if you're going to ask people to make sacrifices or make choices, one has to know the implications of making those kinds of choices. Maybe I won't go fishing, or I'll fish less this year because in subsequent years there'll be more fish for me and my kids and for the boat to be passed on to the next generation.

However, if -- that's all uncertain. It's much more difficult for people to make those kinds of decisions, so there's a social and an economic and a biological context that is very, very important here.

- Q All right. I'm wondering if we should turn, then, to your work at the organization for economic cooperation and development.
- MR. TIMBERG: Mr. Registrar, if we could have Tab 18 from Canada's list of documents.
- O Dr. Davis, if you could perhaps explain what your role in this document titled "Setting the Stage, Rebuilding Sustainable Fisheries for the Future, Challenges and Opportunities for Fisheries Managers and Decision-Makers".
- A Yes. Mr. Timberg, this is a workshop that took place sponsored by OECD which is the Organization for Economic Cooperation and Development which looks into world leadership with respect to economic issues and biodiversity and these sorts

1 of things. So this workshop was all about how we address fisheries rebuilding and how we address 3 fisheries management and decision-making. the stage for some of the discussions here in the 5 sense that we're dealing with fisheries that are 6 depressed and how to rebuild them and how 7 economics and how science and how public kinds of 8 processes help with respect to setting the stage 9 for rebuilding. 10 All right. Perhaps you could summarize the 11

- abstract for us at page 1 there.
- Α This abstract deals with the types of things that were discussed at the workshop, why it's difficult to achieve change in a public context, and what has been going on both domestically and internationally is conflict between all the competing interest groups and organizations. groups approach these kinds of things from an interest-based perspective. What will this do to me, my livelihood, my organization, my future?

So it's very difficult with all the positioning, as I'm sure the Commission has heard, to see through this to some more cohesive and cooperative approach amongst people. So the workshop went into how one might deal with that and what might inform a better way forward.

All right.

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- MR. TIMBERG: Mr. Registrar, if we turn to page 10? If you could assist us as to what we can learn from this workshop to help sustain the Fraser River sockeye?
- I want to talk about the transition here, and this Α is very much all about people. I mentioned that we think we manage things through biology, but in fact all our tools in fisheries management are about people and either allowing or disallowing their access. So the psychology, it's very important here from the perspective of achieving change and getting a buy-in to policy.

People see the status quo as being less risky than an uncertainty associated with change. all fear the loss of benefits and involvement or our status with respect to our position in a given lobbying structure or activity. We fear hidden agendas in the unknown when change comes before us. We tend to associate our beliefs with others of similar belief rather -- well, all the guys in

this group feel that way, so I should think likewise, because that's the common understanding with respect to how we think about this.

It's much easier to do nothing than accept uncertainty of change, and we may not understand the proposed changes, so in the context of DFO or the Department or the Commission, rolling out something new, how all of these societal ideas, values, how psychology works, is really important. I used to sit my office as the RDG at the end of a horrible week and think, boy, everyone out there I've talked to all week basically wants to do the right thing for the fish or for the future. all share this common understanding, but they spend most of their time poking each other in the eye and arguing over it's your fault, or it's the Department's fault or something like that. has to be a better way forward, and I think part of the route of it is in the basis of understanding people and understanding how they approach things and helping them approach these kinds of creative changes from a conservation point of view.

And so what are your suggestions then?
I think we tended to always focus on biology. So we inform everything with science and biology which is most important to tell you something about how to manage stocks and their status and all of these -- and the complexities of it. In my opinion, we don't use enough social science to do this and the type of thinking that's related to these bullets. We need to find a better way of incorporating the social side of things to assist people with getting comfort with the changes to come.

Secondly, I don't think we have enough really good economic analyses that helps inform these kinds of decisions. So the criticism of socioeconomics I think is a valid one from the perspective of the role that economists can play in informing future decisions. This conference dealt with bringing economists out early in the game. What tends to happen is economists are there at the last minute to say something about the impact of the proposed policy or change as we've seen in the **SARA** example. Bringing out the economics early and helping people make choices

and recognize that if you have to make sacrifices for good reason, these are the benefits that flow to the future.

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I think the Department could be strengthened by having a stronger socioeconomic analytical capacity.
And we've been speaking about socioeconomics. I

understand there's the economic side of it, but could you elaborate on the socio side of a socioeconomic report?

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Well, the socio side is all about, in my simple mind, understanding about people and about how people make these kinds of choices and you have to engage -- you have to recognize from a socio side that you're dealing with a whole variety of different perspectives, all of which are The perspective of a commercial realistic. fisherman who is really worried about the bottom line and making the payment on the boat and being able to have, you know, money in the bank to feed the kids is just as important as the perspective of the recreational fisherman that wants to take their son or daughter fishing, or from the perspective of a First Nations that have a very, very tight and appropriate tie to the land and to

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the resources and to the cultural aspects.

So every one of those individuals comes to the table with their own perspective. Part of our challenge is bringing those somewhat disparate perspectives together in some way where teasing through that, that common thread of conservation, that common concern about the future, wins through

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conservation measures that need to be achieved.

So I truly believe that everyone shares that vision, and it's getting from A to B and getting past the traditional behaviours is pretty

and helps us achieve the appropriate kinds of

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critical.
MR. TIMBERG: Mr. Registrar, if we could just move to the next page, please?

This is a section of your -- the workshop on the role of fisheries economists and fisheries rebuilding. Do you have any advice with respect to how you get from A to B?

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A Well, the conclusion with respect to the economists is we need more of them. We need people who are good at and really informed about

fisheries economics. They need to play on all of these decisions early in the game rather than at the 11th hour to help everyone, government decision-makers, the various groups that have an interest in the issue.

- Q Thank you. If we could then move to the next, Tab 19 in our list of documents.
- THE COMMISSIONER: Mr. Timberg, did you mark -- is that already marked, Tab 18?
- MR. TIMBERG: Oh, thank you, Mr. Commissioner. No, if that could be marked as the next exhibit.

THE REGISTRAR: Exhibit number 900.

EXHIBIT 900: Document titled, "Setting the Stage - Rebuilding Sustainable Fisheries for the Future, Challenges And Opportunities for Fisheries Managers And Decision-Makers

- MR. TIMBERG: Also Tab 19 is a document titled, "The Economics of Adapting Fisheries to Climate Change."
- Q Dr. Davis, if you could identify this document, please?
- A This is another OACD document that relates to a meeting that was held in Busan, Korea, that I was asked to chair in June 2010.
- MR. TIMBERG: If this could be marked as the next exhibit.

THE REGISTRAR: Exhibit 901.

EXHIBIT 901: Document titled "The Economics of Adapting Fisheries to Climate Change" from a meeting in Busan, Korea

#### MR. TIMBERG:

- First of all, can you explain the title, "Adapting Fisheries to Climate Change"? What was the view at the workshop?
- A Focus in this workshop was with respect to what is going to happen to fisheries globally with the onset of the impacts of climate change, so it was about what the economic impacts would be on fisheries, what the management implications would be, and what is coming. The climate change is coming at us all around the world with respect to impacts on fisheries. This was an attempt to review this from the perspective of experts from

around the world, look at the kinds of key issues that come from it, and be informed in terms of how we better adapt to the climate changes that will be coming.

Okay. And page 1 sets out the description. Page

5 of this document, there's a summary, and you

wrote this summary, "The Chair's Summary"? Yes, I did.

Q All right. And perhaps if we could just turn to page 8 of the document, at the top of the page, these four bullets. What can we learn from this workshop to help sustain Fraser River sockeye salmon?

Well, the workshop talked a lot about the expectations of the impact of climate change with respect to fisheries, and it talked about the changes that would be occurring in the ocean and in freshwater bodies around the world with climate change. Of course, these relate to changes in oceanography, changes in the temperature conditions in systems, changes in primary productivity and the kinds of things that affect the overall production and the well-being of fish stocks.

As part of that, it's very clear that there's a great deal of uncertainty associated with climate change in the future, and that uncertainty is of various types. Observational uncertainty, which you've heard of in this Commission, I'm sure, where we're not exactly sure we understand what's going on in the system. So do our observations actually correspond to what's really going on in the ecosystem? So that type of scientific uncertainty.

Secondly, model uncertainty where people use models to make predictions about what's happening. The models are complex things drawn on a board with all kinds of interconnecting lines and assumptions, and they're used to make predictions. Often these are highly uncertain as well.

Then there's process uncertainty where there's a lack of understanding of how the system really works, what components in the system affect one another.

And superimposed on that, there's policy uncertainty. What if we follow this policy? What

will that mean in terms of the outcomes that come out the other end of it?

So managing uncertainty is a very big part of the equation. An important lesson from this workshop and from thinking about the impact of climate change is that the world is going to be more and more uncertain as the impacts of climate change are felt. We know it's just a totally scientifically accepted body of knowledge that climate change is happening.

In British Columbia we will see probably more periods of rainfall, and lots of rain when we don't need it. You'll see protracted periods of drought. These kinds of things are going to affect the Fraser River significantly in the standpoint of temperature regimes, run-off regimes, the upwelling of groundwater from snow pack that will change with the onset of climate change. All of that will affect the life cycle of the salmon.

Salmon are extremely adaptable animals that have pursued this whole array of multiple species, multiple behaviours and multiple ways of the subgroups address their use of the environment. From birth to death, in the life cycle of the salmon, at any window in that time there can be big biological affects in terms of survival and abundance.

So let's envision that what we're facing is: how best to manage for the future? We're going to do it in an increasingly uncertain time. So from the standpoint of the Wild Salmon Policy and the kinds of issues the Commission is addressing, my thesis is this is going to be all about surprises. Your hearing is all about surprises. It's a surprise that the fish didn't come back and collapsed, and it's a surprise that it came back in huge numbers the following year. I would suggest that that presages what will come for the future with respect to dealing with this uncertainty and the impact of climate change.

I think what it means is from the standpoint of science and fisheries management, we need to think about a number of approaches to this. First of all, having fishing plans that are really based on our best guesses with what's going to happen next year won't do the job from the standpoint of

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addressing the uncertainty. You can make your best guess as to what will happen in the coming year, but I think you need to bound it on both sides by saying, "Here's our best guess. Here's the fishing plan that we would address for those given expectations."

But let's also lay out the book ends of this. Let's say that if the run comes back much weaker than expected, this would be the set of management activities associated with that particular scenario. If the run comes back with a high abundance, this would be the set of management actions. If there was a possibility to take that more complex, yes, but realistic array of the fishing plan before the various First Nations, stakeholder and interest groups, get agreement on the plan ahead of the season, and have a clear understanding of how it would roll out in an uncertain future, that would be very helpful. you can incorporate into that the kind of weak stock management and Wild Salmon Policy initiatives.

- When you talk about a fishing plan, you're meaning the IFMP, the Integrated Fisheries Management Plan?
- A Correct. Correct, yeah, and so I'm talking about early consultation on it and a flexible plan.

Second point is we really need the best in-That means good season information we can get. science, and it means effective test fisheries, effective monitoring techniques so that you can actually track the landfall of the fish and the runs into the system. So effective test fisheries at entry, real-time information on the stock composition and the timing, very, very important, and good monitoring devices up through the river so that these whole issues about fish passage, freshet and low flows affecting survival, the issues about the fish burning out with their energy reserves being exhausted before they get to the spawning grounds, the issues about late entry into the river and parasite infestation, those can all be looked at in a more effective way through a better tracking system.

Things like the Qualark tracking facility, improvement at Mission and other types of techniques that the Commission may be able to look

at for in-season management I think are very, very important.

Lastly, it's very interesting that we have done almost no deep-water sockeye research since the '50s. When there were concerns about the interception of Canadian-origin salmon by the Japanese fleet, there was a lot of collaborative international work done and in far distant reaches of the Pacific with tagging programs and observations that told us something about what these fish were doing on the high seas. been some work in the near and coastal environment, but we know relatively little about the black box of the ocean and what's going on in distant areas. I'm convinced that given the changes the oceanographers have seen in terms of the productivity of the ocean and the unusual water masses and the productivity and the layering that's going on out there that stops the nutrients coming up, that certain groups of fish go to certain parts of the ocean and that they may do very well there and come back in abundance. Other fish that may be progeny of an area quite close by to where the group I've just referred to, go to a different part of the ocean and do things differently.

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- And that's not at all surprising because when we think about salmon, what salmon did is, you know, eight to 10,000 years ago, there was four kilometres of ice here. Since that time, those creatures have figured out how to colonize all the systems of the Pacific, North Pacific rim, go up into the Arctic and developed all kinds of strategies for survival, so the diversity of what they do and the way that they're designed, gives them this adaptability. But that adaptability will be superimposed on these changes to come. have to really recognize that we're dealing with a very complex organism, but it has enormous adaptability to deal with the kinds of complexities that are thrown at it.
- Thank you. Can you comment on the role that science would play if there is this increased unpredictability in salmon in the future?
- Α Well, scientists can certainly address the kinds of uncertainty that we've got on -- that we've

seen here, and science can inform effective decision-making. Certainly as an ADM of Science in the past, you say, yeah, well, John wants to see more science. Of course I do, but I'd like to see science directed at some of these kinds of things that we've talked about, both the in-season and the pre-season type of work.

I think we need science organizations also that are focused on really looking into this, and that the science needs to not be done in silos, that you need scientists who are ocean scientists working closely with biological scientists, and from the standpoint of conveying their views to the public, social scientists and economic scientists who can help be the translators.

One of the problems of science is we talk in equations and write things and boards and it goes right over people's heads.

Q Right.

- A We need to convey that clearly.
- Q There's been some criticism in these hearings that science is often reactive as opposed to proactive, and I was wondering if you could comment on that.
- A Well, my point was I think we need a body of really cross-disciplinary proactive thinkers to address what is to come, and I think that's a very important aspect of science.
- Q Okay. I was wondering if you could -- how do you plan fisheries in a way that doesn't deprive the furthest at sea from an opportunity -- that's my -- I'll leave my question at that.
- MR. WALLACE: Mr. Commissioner, Dr. Davis has a lot of experience in DFO but we've let very broad reaching questions go on here, but this, I think, is drifting further and further from our concern, our topic, and is not an efficient use of the Commission's time.
- MR. LEADEM: Well, Mr. Commissioner, I'd like to weigh in on that objection, because I have been -- I have found this past discussion very fascinating, very appropriate to the work of the Commission. I think that Mr. Timberg should be allowed to explore this further with this witness.
- MS. GAERTNER: Mr. Commissioner, I'm also going to weigh in on this. If the question is, as I understand it, how to plan fisheries in a mixed-stock fishery, that's completely germane to the

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Cultus discussion and what we've learned through Cultus and I completely support the witness being asked this question and us hearing the answer.
MR. TIMBERG:

- The question being, Dr. Davis, is can you help us -- how do you plan fisheries in a way - mixedstock fisheries - that doesn't deprive those furthest at sea, perhaps those people up near Prince Rupert or the mid-coast for example, to ensure fairness for all?
- It's a complex thing to do because the behaviour of the fish governs what happens. As the fish make landfall on the coast, as you know, they can come down the inside through Johnstone Strait or the outside down the west coast of Vancouver This requires trying to create in the Island. fishing plan opportunities for people who are situated along different parts of the coast or go there with their vessels. If you move to an entirely terminal fishery, it would make a fishery manager's life much easier, because you're managing fish right at the river mouth or in the river or even way back what used to be done with a series of traps along the coast years ago where you were taking the fish close to a terminal harvest. That would benefit the people close -or upstream of the terminal harvest, but at the expense of people who live more distant.

So the trick is to tease apart the runs. You put in place the kinds of conservation measures that are needed, and try -- which takes the wisdom of Job to have a fishing plan that allows people to have a go at the fish as they move down the coast.

In terms of the process I described earlier where you need to deal with uncertainty, the whole issue would be as part of that consideration, giving people opportunity as best you can and spreading the benefits. You also need to be able to think about what would happen in a poor year as opposed to an average year as opposed to a good year. Again, you need the good in-season management information so that a manager with confidence could say, "I really do know that this run is coming back and it's pretty abundant in the entrance to Johnstone Strait," and we could have a

John Davis Cross-exam by Mr. Timberg (CAN)

go at it in that area and people would have a benefit there.

At the same time recognizing that there are special requirements to provide First Nations with their constitutional requirements for food, social, ceremonial fish and that all has to be factored into it.

MR. TIMBERG: Mr. Commissioner, I note the time.
THE COMMISSIONER: Thank you very much, Mr. Timberg.
THE REGISTRAR: The hearing will now recess till two o'clock.

(PROCEEDINGS ADJOURNED FOR NOON RECESS) (PROCEEDINGS RECONVENED)

THE REGISTRAR: Order. The hearing is now resumed.

MR. WALLACE: Thank you, Mr. Commissioner. One housekeeping matter. The documents that I referred to this morning, as you'll recall, there are groups of documents from DOJ relating to this topic, but which they discovered or were able to find only quite recently. Both of those sets, one of I think 14 documents, the other of three, have now been e-mailed to all participants. And in addition, the ones that were produced this morning, the three documents, there are hardcopies for participants, and they are on the front counter in front of Mr. Lunn. Thank you.

MR. TIMBERG: Yes, Mr. Commissioner, Tim Timberg, for Canada, with my colleague Geneva Grande-McNeill. I have two documents, I have approximately ten minutes left with my examination.

# CROSS-EXAMINATION BY MR. TIMBERG, continuing:

- Q Mr. Lunn, if we could have Tab 20 from Canada's binder of documents. Dr. Davis, could you identify this document, please.
- A That's an address I gave to the challenges at the workshop that took place, that I described was adapting fisheries to climate change.
- MR. TIMBERG: Okay. And if we could have this marked as the next exhibit.

THE REGISTRAR: Exhibit 902.

EXHIBIT 902: Fisheries Policy-Maker's Perspective - Challenges and Opportunities in Adapting Fisheries to Climate Change, presentation by John C. Davis

- MR. TIMBERG: And, Mr. Lunn, if we could go to the first page, or the second page, I guess.
- Q And, Dr. Davis, can you describe whether what is coming in the future, whether this trend of uncertainty in fisheries is being observed globally?
- Yes. You can see here that there are many fisheries collapses occurring worldwide, and that the rate of collapse internationally hasn't slowed over the last 50 years. So there's a major issue with respect to management of major fish stocks. Of course, coupled with that is a massive increase in human population and the challenge of global food supply, which is associated with that. Superimposed on all of this are the impacts of climate change that are to come. So certainly there is a consensus that these changes and uncertainty are going to change the world in terms of how we look at fisheries, and while an everincreasingly hungry world is going to need natural resources in fisheries, we have to look at it from the standpoint of, you know, what can these resources produce and what is being done in terms of the international conservation activities.
- Q Thank you. And, Mr. Lunn, if we could then have Exhibit 884. And I'm wondering, Dr. Davis, if you could provide us with an overview of your educational background.
- A Thank you. I studied at the University of Victoria as an undergraduate and received my Ph.D. and Master's degree from University of British Columbia. I worked on Pacific salmon for my thesis work, particularly the energetics and exercise physiological abilities of Pacific salmon as a research topic, and that was relevant to studying the impact of stresses and pollutants on fish.

And then I was hired by the Department of Fisheries and Oceans as a research scientist and engaged in environmental science studies, mostly with coastal pollution problems for a number of years, and aquatic water quality, and particularly

the dissolved oxygen requirements of Canadian aquatic life, which formed the basis of a couple of substantive review articles.

All right And perhaps you could provide us with

- Q All right. And perhaps you could provide us with an overview of your various positions at DFO.

  I'll suggest perhaps regionally, nationally, and then your international work.
- In the Pacific Region, starting as a research scientist in the environmental studies, as I mentioned, I progressed to become the Associate Director of the Biological Station at Nanaimo. And then was hired as the Director General, Ontario Region, where I was responsible for the Great Lakes and the Central part of Canada, with particular relevance to the Department's programs there, and issues in terms of the recovery of fish stocks in the Great Lakes and sea lamprey control.

I then went up to Ottawa as the Director General for Pacific and Freshwater Operations, with responsibility for Central Canada and the West Coast.

Went back to British Columbia as the Regional Director of Science for 12 years, where I was responsible for the Biological Station in Nanaimo, West Vancouver Laboratory, and the Institute of Ocean Sciences in Sidney, north of Victoria. So the full spectrum of the Science program, and then the Science staff that were assigned to work with Fisheries Management in different parts of the province and in the Yukon.

I then went up to Ottawa and took on the position of the Assistant Deputy Minister of Science, and I was responsible for the Science programs across the country and in the Arctic for several years. Came back to Pacific Region as Director General Pacific for a couple of years, and then was contemplating retirement, and then went on to become the Special Advisor to the Deputy for the implementation of **SARA**.

I did a lot of international negotiations. I was head of the Canadian delegation on the Pacific Salmon Treaty. I was Canadian negotiator for the Yukon portion of the treaty. We worked on a resolution to ban driftnets in the North Pacific, at least big nets that intercepted a lot of marine mammals and fish stocks. Managed to get a resolution into the United Nations on that. And

John Davis Cross-exam by Mr. Timberg (CAN) Cross-exam by Mr. Leadem (CONSERV)

I've done a lot of collaborative work with Asian countries on science collaboration and being a commissioner on various commissions.

- And what's your present position with the OECD?

  OECD has hired me to chair these workshops or participate, and I think it's because what I'm often asked to do is come to a conference or a proceeding and listen to it and try my best to summarize the key findings and outcomes, and distil things into concepts that help guide the discussion, and that sort of thing. So I've been hired in that capacity several times.
- MR. TIMBERG: Okay. Thank you. Those are all of my questions.
- MR. LEADEM: Leadem, initial T., appearing as counsel for the Conservation Coalition, Mr. Commissioner.

## CROSS-EXAMINATION BY MR. LEADEM:

Q Good afternoon, Dr. Davis. I will be asking you a number of questions. I'm not interested so much in going back into the history of the SARA and the Cultus Lake designation and what happened there. But I am interested in going forward and determining what lessons we learned that we can take into the future. Then I want to come back and revisit with you some of the interesting discussion that you had with Mr. Timberg from this morning.

I want to begin by asking you to examine with me Exhibit 899A. This was the Dr. Mooers authored paper, "Biases in Legal Listing under Canadian Endangered Species Legislation". And I want to refer you to two specified passages. The first one is at page 3, and in the middle column there, under the first full paragraph, I find these words:

Benefits to listing must also account for nonuse economic values. These are the benefits of conservation that can be reflected in part by the value that society holds for the preservation of species.

I just want to stop there and get your reaction to that. Do you recognize that concept as a benefit to listing a species under **SARA**?

A I do recognize that concept as part of a broadly-based socioeconomic evaluation, and non-use relates to the values that Canadians hold with respect to natural resources. How we value them as a place to walk in the woods, or ability to take your kids fishing, and these kinds of things, or just the ability to have nature present and to enjoy it was part of our natural ecosystem.

Non-use, too, I think, pertains to the way that people that have a traditional tie to natural resources look at the world, to the holistic view of the ecosystem, and particularly First Nations, or fishermen who are out on the water and value just getting out in the boat and being there, have values associated with non-use.

- Q These are some of the social values that should get incorporated into a benefit/cost analysis; is that correct?
- A I think that's an important dimension, and when I talked earlier, sir, about, you know, looking at all of this in a balanced way, it is important to do it. How you put value on it, and how you state it in economic terms, is challenging.
- Right. Because it comes -- doesn't it come down to this, that it's really difficult to put a dollar value on extinction of a species. I mean, you can put a dollar value on a commercial -- on a commercial aspect of a species, such as the sockeye salmon, because it has commercial value. But it's very difficult to put into quantifiable terms, into dollars and cents, what would happen to us as a society if we lost that Cultus Lake sockeye. Is that fair to say?
- Well, I think when you say it's difficult to put a dollar value on this sort of thing, yes, that is a challenge, no question. And I think it's just something that relates to what kind of values society holds. I mean, you can look at it in various ways and say, well, we're going to exploit the very strong runs in a mixed stock fishery, and this will provide benefits, and we stop at that point.

But I think the whole purpose for this Commission is to look at where you set the bar, as I mentioned earlier, and how you try to obtain that mix of biodiversity that is so important, but not set the bar so high that there are huge

impacts on Canadians in terms of the economic side of it for everything that we forego, and that's a massive argument that's always, you know, that the challenge between balancing preservation thinking and exploitation thinking.

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46 47 I want to now draw your attention to the last couple of sentences of this paper, and to get your reaction to them. The authors say:

Biodiversity conservation would be best served by strict, transparent, legislated timelines for all aspects of the listing process following receipt by the Minister of the Environment of the status assessments undertaken by COSEWIC.

And they go on to say:

We also recommend that, within the RIAS --

- that's the Regulatory Impact Analysis -
  - -- framework, **SARA** require that the full costs of extinction and the full benefits of recovery be quantified in externally reviewed reports so that they can be fairly weighed against the impacts of legal protection.

Do you have a reaction to those two sentences? I'm not exactly sure what the first sentence means. It might mean that the authors feel that biodiversity would be best served by a lockstep process, where COSEWIC provides advice, and then it's incumbent on the Government of Canada to automatically list the species, because that was an argument that many people made when the legislation was being prepared. What that would do, though, would take out the parliamentary process in terms of the ability of governor-incouncil and ministers to weigh these kinds of things and to make a decision. And so while some would prefer that the socioeconomic side of it not be part of the equation, the way the legislation was prepared was to provide that kind of discretion for ministers as part of the process.

The RIAS statement suggests that the full costs of extinction and the full benefits be

quantified. Hard to quantify those things. You can get into all kinds of economic arguments about contingent valuation, how much value do you put on having this one fish here for Canadians. And we've seen that in oil spill litigation, where people said, well, the contingent value of this species that was killed is "X". And very interestingly in the Exxon Valdez situation, they spent around \$85,000 per sea otter in terms of the recovery side of it. And so society make a judgment to value those otters and try to protect them by doing work that cost a great deal of money.

- Q Doctor Mooers in this paper refers to two specific examples, and they're obviously not in front of this Commission, the Atlantic cod example, as well as the porbeagle shark. In the latter case, the porbeagle shark, if it was listed, it would have led to eight jobs being lost, and something really small, relatively small. So I think that you would have to agree with me that really it comes down to weighing things, the significance of the extirpation of a species, which may happen if it's not listed, versus the economic benefit that might accrue to a certain segment of the population. Doesn't it come down to weighing all of these things?
- A We did talk about that before, that weighing things is important. And I believe the Commission is going to have to be very cognizant of that when you set the bar for conservation units and you weigh where that bar would be, with respect to the choices one makes.
- Q I trust that you've also had access to some of the documents that my clients wanted you to review, the Conservation Coalition documents, and there were some authored journals. And I want to refer you to Conservation document number 7. That's a document entitled "Is scientific inquiry incompatible with government information control?" It's authored by Dr. Jeffrey Hutchings from Dalhousie, Dr. Carl Walters from UBC, and Dr. Richard Haedrich from Memorial University. Are you familiar with this paper?
- A Yes, I've seen that paper. I'm not familiar in detail with it.
- Q All right. I just want to refer you to some parts

of it, and to also get your reaction to what is being proposed here. And I think the easiest way in the interests of time is to actually take you to the very end of the paper, the very last paragraph on page 1209 of the paper, beginning with:

The present framework of government departments such as the DFO is based on the belief that the conservation of natural resources is best ensured by science integrated within a political body. Recent history would suggest otherwise. The formation of a politically independent organization of fisheries scientists or some such reorganization of the link between scientific research and the management of natural resources, is a timely idea that merits immediate, serious, and open debate.

And it's that last sentence that I want to get your reaction to, It's what the authors seem to be promoting here, Drs. Walters and Hutchings, is having some independence, so the formation of a politically independent organization of fisheries scientists. Do you have any strong views one way or another about that?

- A I think you need both, actually. I think that you couldn't have a Department that was charged with the management of natural resources without its very strong internal science capacity.
- Yes. Q But there's nothing wrong with other bodies that are learned scientific bodies that bring forward information. In fact, you can argue that COSEWIC is just that, that it is a group of people, largely academic scientists, who provide arm's length advice to the federal government, and there's absolutely, I think, room for both of these sorts of things. The benefits of an outside organization is it's not constrained from working within the natural constraints of an organization. And these sorts of groups, such as OECD that I just talked about, can also be clearinghouses or sources of information for that scientific debate. Now, the two examples that are traced through by

these authors, one is the Atlantic cod example

that most of us are familiar with, the demise of the Atlantic cod in the East Coast, and the other one is the -- in B.C. here, with the Nechako River, and the damming of the Nechako by Alcan and the flow regimes, and Alcan. And doubtlessly in your long career with DFO you came across some of the internal strife that arose as a result of science and government not seeing eye to eye in terms of the flow regime, and litigation that DFO had commenced against Alcan, and how that was settled, and so forth. And are you familiar with that example, with the Kemano example?

- A I am. It's a long time ago, but I -- it was early in my days, but I remember it.
- Q And so the authors trace through those examples and suggest that DFO would be better served by having some independence, so that there wasn't that -- so that that strong integration with government bureaucrats and science. That was some time ago. Have you noticed some sort of a shift in thinking at DFO from those days?
- I think there's a recognition that it's healthy to have both a strong internal science capacity and other bodies that are looking and bringing forward ideas from an independent scientific perspective. So I'm not so sure there's a necessary shift, but perhaps more of an awareness that as we get into more and more of these difficult times of problems, that it's the collectivity of science thinking that's important.
- MR. LEADEM: All right. I'm now going to ask you to take a look at Conservation -- oh, sorry. Could document number 7, the Hutchings and Walters paper be marked as an exhibit, Mr. Commissioner.

THE REGISTRAR: Exhibit number 903.

EXHIBIT 903: Hutchings, Walters and Haedrich, Is scientific inquiry incompatible with government information control?

## MR. LEADEM:

Q The next document I'd like to go over with you very briefly, Dr. Davis, is Conservation Coalition document number 2. And this is a paper entitled "Science, Policy, and Species at Risk in Canada, authored by Dr. Mooers, there's a whole group of them. Are you familiar with this paper?

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- I've seen this as part of the documentation that I
  was provided on the weekend, so it's part of my
  four-foot stack of papers.

  Okay. I don't -- well, now you know what it feels
  - Q Okay. I don't -- well, now you know what it feels like to be a lawyer sometimes, looking at the same stack of papers.
  - A My heart goes out to all of you. I don't know how you folks cope with this day in, day out.
  - Yes. If I could ask Mr. Lunn to turn to page 2 of that document, you'll see a chart there. And what the authors are suggesting - if you could just blow up that chart a little bit - and I don't know if you've had a chance to really take a look at this, Dr. Davis. If you haven't, that's fine. But basically what the authors seem to be promoting here is the context of SARA is a separation from the scientific component, from the decision-making component. And they do so by referring to this chart here, chart "a" being the present regime, and chart "b" being the promoted regime, where the -- for example, if you follow through on looking at part "B", you'll see "Socioeconomic analysis" being feeding into the "Public consultation" and "Legal Listing", not something that's actually integrated into the SARA process. Do you have any reaction, having reviewed the paper, to that kind of a suggestion?
  - A I haven't reviewed this paper in detail at all. I was aware it was there, and I'm not sure I totally understand it. So maybe you could explain your thinking on that one.
  - Q Right. Well, just following through in terms of "b". You'll see in the heading there it says:

Potential modification highlighting enhanced separation of science activities (in white) from government action (ochre). In this scheme, independent, peer-reviewed science offers transparent input to government decisionmaking. COSEWIC, Committee on the Status of Endangered Wildlife in Canada.

Do you have any reaction, just to that description, that having a transparent, independent, peer reviewed science aspect of **SARA** listing is something that should be sought after? I think that's what you have with COSEWIC,

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actually. COSEWIC has species subcommittees and they review documentation and provide advice, and -
But if you look at the socioeconomic analysis that you've raised, as something that we learned in the

- But if you look at the socioeconomic analysis that you've raised, as something that we learned in the **SARA** listing of Cultus, you'll see that if you actually separate that from the **SARA** listing so you can, you do that as a peer-reviewed, transparent process and have as much input as possible, wouldn't you agree with me that that's better than incorporating it into the decision-making process of **SARA**?
- A Well, I think the paper we've referred to earlier, which was the 2006 framework for socioeconomic analysis --
- Q Yes.

- A -- that the Department put together as a result of the experience learned with the Cultus listing, Sakinaw listing decision, is helpful in the sense that you'll see in that paper there's recognition that the socioeconomic analysis needs to be peer-reviewed --
- Q Yes.
- A -- and externally peer-reviewed. So I agree -- MR. WALLACE: For the record, that's Exhibit 898.
- A So certainly there's a recognition that peer review is very important in the socioeconomic analysis.
- MR. LEADEM: All right. Might this be marked as the next exhibit, please.

THE REGISTRAR: Exhibit 904.

EXHIBIT 904: Mooers et al, Science, Policy, and Species at Risk in Canada

- MR. LEADEM: And I can ask now, Mr. Lunn, to pull up Conservation Coalition document number 4.
- Q This is a paper authored by Dr. Vanderzwaag and Dr. Hutchings entitled "Canada's Marine Species at Risk: Science and Law at the Helm, but a Sea of Uncertainties". It's a rather lengthy paper. I don't expect you reviewed this in any great detail did you, Dr. Davis?
- A No, I didn't.
- 45 Q All right. Let me see if I can at least prompt 46 you in terms of a reaction that you may or not 47 have to some words I find right at the end of the

paper. If I can just ask you, Mr. Lunn, to go right to the very end. Before the footnotes, if we could just go to the end of the text. You can see it, it's very heavily footnoted. I think we've got it there. Just go to the last paragraph, and I want to see if you can -- I'm hoping you have a reaction to this, because it strikes me that this is very similar to things that I heard you say earlier. It says:

Saving of species in the end will involve much more than law reforms and improving scientific knowledge regarding species and marine ecosystems. Society as a whole has to move from a "deathbed" approach to conservation towards "holistic health" where humans live within the bounds of ecological integrity and biodiversity richness.

# It goes on to say:

Changing human values and curbing strong commercial, industrial, and recreational interests will not occur through "quick fixes" or come easy. Legal principles, such as the precautionary approach, ecosystembased management, and intergenerational equity, are contributing to paradigm shifts, but societal transition will take all the energies that the humanities and social sciences can muster.

So do you have a reaction just to that general statement?

- A I like that. I do. I think it's very high level, and it's similar to some of the things I talked about earlier.
- Q That's what I thought.
- A In fact, to those conclusions, yes.
- Q Yes.
- And it really is where we find ourselves in this universe, and where, how we establish ourselves as conservationists and also people who have an impact on the globe, and exploit resources.

  So we've heard some talk about -- in this room in
  - Q So we've heard some talk about -- in this room in the context of ecosystem-based management. That's something that we should be aspiring to in terms

1 of the sockeye salmon, is it not? 2 Α I think that's a very important thing, because the 3 sockeye is embedded in the very ecosystem that 4 supports it, and it's the subject of another 5 workshop I was just involved in. But it is easy 6 to say, hard to do. 7 Exactly. And that leads me to the Wild Salmon 8 Policy, because sooner or later I was going to get 9 around to that. We heard a lot about the Wild 10 Salmon Policy, in fact, as when you exit, we'll be 11 talking about the Wild Salmon Policy and the 12 implementation of it. And concomitant with the 13 SARA listing, we heard some evidence from you 14 earlier, that the Wild Salmon Policy was coming 15 into being. And that some of the fixes that if, for example, if the sockeye, the Cultus Lake 16 17 sockeye was not listed, some of the remedies and 18 some of the fixes could come from the Wild Salmon 19 Policy, at least we were told that. Is that 20 correct, do I have that right? 21 Well, certainly some of the fixes for weak stock Α 22 management in general, and based on conservation 23 units, and for stocks that are in low abundance or 24 small, compared to those that are being co-25 harvested, could come from the Wild Salmon Policy. 26 Right. And we've heard some evidence from some of 27 the people that were intimately involved with the 28 Wild Salmon Policy and its derivation and its 29 thinking and the consultations around it. 30 strikes me that it's taken an inordinately long 31 period of time to get the Wild Salmon Policy into 32 a state where it's actually implemented. And I 33 want to get your reaction to that as a former DFO bureaucrat, scientist. What seems to be the 34 35 problem with DFO that they can't ever -- they get 36 bogged down, they can't get through some of these 37 things. It takes a long time to actually bring 38 these things, such as the Wild Salmon Policy, to 39 fruition. What happens? Why is that going on? 40 Well, it's been three years since I retired, so I 41 have no knowledge of what's been going on in the 42 last three years. But I think part of the 43 challenge, and it goes back to what I said before, 44 in implementing any new policy changes, is that we 45 deal with a huge diversity of interests, First Nations and stakeholders. We operate in a very 46

Canadian way, by wanting to achieve consensus on

things. It's very difficult to move and to make changes. It's very difficult to get all the different vested interests, you know, on the same wavelength and track and to move forward, and I think DFO suffers from that. Probably coupled with the problems of resources and available people and money, these are not the best of economic times, so it would be worth looking at whether there's sufficient budgets to roll out the Wild Salmon Policy and whether or not there's, you know, enough wherewithal to do that.

And although I think you may be a bit fair in saying that part of it is that you've got all

- And although I think you may be a bit fair in saying that part of it is that you've got all these competing interests, isn't part of the problem also DFO itself, that it's not able to actually make or bring people to the table in a way where decisions can actually be made and where all of the various interest groups can have their say? I mean, you've got to engage people and bring them to the table. So isn't there something that's something wrong with the culture of DFO that causes this not to happen?
- I'm not so sure it's the culture or the experience Α or the process. If you looked at the number of consultations across the country in a given year, I would certainly challenge us to find any kind of government department that is engaged into that degree in comparison to the Department of Fisheries and Oceans, it's incredible for fisheries managers and for people of all levels in terms of the amount of consultation that occurs. Is it adequate? Do people feel it's adequate? they feel they're open? There are different perceptions about all of that. But there's an awful lot goes on. Could it be better, or could we find bodies, mechanisms, ways of doing it that are more effective?

Part of the problem with a Department like DFO is that much of the detailed decision-making rests with the Minister or senior accountable person, such as the Director General. Now, that is a position where you become the arbiter of virtually every decision. I think the Department could make great use of external advisory processes that are effective, or bodies which are a constituency of different interest groups, but charged with the responsibility for making some

key decisions. That's helpful for the Minister from the standpoint of not being on tack for every issue that has to be decided. It's an impossible job to be at the helm of all of those decisions and to balance all those different interests. So if we can find effective processes that bring like-minded people together with a commonly bound objective, that could be very, very helpful. And I don't think we've been that good at it so far.

MR. LEADEM: All right, thank you for that. Could we have this document that's on the screen marked as the next exhibit, please, Mr. Registrar.

THE REGISTRAR: Exhibit 905.

EXHIBIT 905: Vanderzwaag and Hutchings, Canada's Marine Species at Risk: Science and Law at the Helm, but a Sea of Uncertainties

## MR. LEADEM:

- Now, the next document I am going to pull up, hopefully it's a document that you're much more familiar with, because it's a DFO document. It's Conservation Coalition document number 5. And it's a Government of Canada document entitled -- well, it's not, I misspoke, it's not DFO. It's "A Framework for Science and Technology Advice: Principles and Guidelines for the Effective Use of Science and Technology Advice in Government Decision Making". Are you familiar with this document, Dr. Davis?
- A Yes, I am.
- All right. I thought sooner or later I'd find one that you were familiar with. I want to go through the -- I found these principles that are articulated in this document quite useful, and I want to make sure that I get your reaction to them. And the first principle is one of "Early Issue Identification" at page 3. When you said you were familiar with it, did you have a hand in authoring this?
- A No. I think this was developed, and I might be wrong, it was developed when I was ADM Science, so a lot of discussion in Ottawa about the scientific decision-making and the kinds of overall objectives and that sort of thing. I think that's the genesis of this document.
- Q And before we go to Principle I, I could not find

a date on this document and I'm trying to pin it down in terms of a -- of a general circa 2000? If this is indeed the one I'm thinking of, there was, I think, prepared by one of the central agencies contracting senior scientist had

developed it for the overall government departments around the year 2000, something like that.

Q Okay.

 $\overline{A}$  1999/2000, if this in fact is the same document.

Q All right. Let's look at "Principle I", and it's entitled "Early Issue Identification". I'll just read the first sentence:

The government needs to anticipate, as early as possible, those issues for which science advice will be required, in order to facilitate timely and informed decision making.

I find that eminently sensible, do you, as well?

A I do. And I think I said something like that earlier with respect to the change that's coming.

Q And we can now look at Principle II at page 4, and I'm going through this quickly because I only have a limited time with you. If you can just scroll down, if you find "Inclusiveness". There it is. "Principle II" is entitled "Inclusiveness":

Advice should be drawn from a variety of scientific sources and from experts in relevant disciplines, in order to capture the full diversity of scientific schools of thought and opinion.

And that's something I think you would readily agree with, as well, is it not?

- A Well, it's virtually the same thing I said when I said we needed biological, economic and social science thinking as part of these decisions.
- And not just taking it from government scientists, but outside government, as well. I mean, there should be a free exchange of ideas in the scientific community if you're going to focus on a specific problem. Do you agree with that?
- A I agree that you should draw on the widest body of scientific knowledge that you can.

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At page 6 there's "Principle III", Mr. Lunn, "Sound Science and Science Advice":

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The government should employ measures to ensure the quality, integrity and objectivity of the science and science advice it uses, and ensure that science advice is considered in decision making.

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Science in the Pacific Region, you would certainly readily agree with that, as well, would you not? And as a scientist and the scientific process is one where you don't get your paper published until it's peer-reviewed and, you know, it's thoroughly

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and objectively evaluated.

Now, page 8, "Principle IV: Uncertainty and Risk":

And as a past person that was associated with

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Science in public policy always contains uncertainty that must be assessed, communicated and managed. Government should develop a risk management framework that includes guidance on how and when precautionary approaches should be applied.

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And are you familiar with that concept? I'm familiar with that concept. In fact, we put Α in place something like this for stock assessment advice in a number of instances. And what we would have, what we called a "streetlight" approach, where something could be green, yellow or red. And depending on the risk associated with the advice, you know, how much exploitation could occur in a given fishery, you could talk to the Minister and say, "Minister, this is a green. you set the bar in terms of that quota at this level, there's a very strong confidence that you will not be exceeding the allowable catch or causing any threat. If it's yellow, you're on the edge. If you go into the red and allow so many tons of cod to be caught in Atlantic Canada, this is the consequence." So you can put a risk assessment or a degree of qualification on these sorts of things.

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Q And in an era of climate change, that you've already indicated you fully accept that we're in that era of climate change, the uncertainties as

you say have increased immensely. And so in that context of uncertainty, isn't it really critical, then, to apply a precautionary approach to your decision-making so that you're achieving a result that's not going to upset the ecosystem and that you're trying to preserve as much of the biodiversity as possible?

- A Well, a precautionary approach is important, but also, given uncertainty, having the kinds of tools and mechanisms and early warnings and these sorts of things that tell you that something is going sideways, or that the run is less than expected and allow you to make intelligent decisions is important. It comes back to what I was talking about earlier, with developing an Integrated Fisheries Plan that has protocols in it to deal with the uncertainties that may come.
- Q Right. I found that to be actually very useful information, and a very useful recommendation to this Commissioner, that if you're going to have Integrated Fisheries Management Plans where there's a number of stakeholders who have a -- who have an interest in what the plan is, that you have a certain set of scenarios predicated on if this happens, then here's what we're going to do. I think I really endorse that. I like that approach.
- A It's a complicated approach that makes the life of the predictors and the managers much more difficult, but one, to me, that seems imminently sensible, given where we're going.
- Q Just finishing with Principle V, page 9 contains "Principle V", and this talks about "Transparency and Openness":

The government is expected to employ decision-making processes that are open, as well as transparent, to stakeholders and the public.

And that's critical, is it not, if you're going to engender public support for the decision-making, it's really important that the decision-making process be as transparent and as open to scrutiny as possible, isn't that right?

A Remember when I presented the social characteristics that I thought were important for

decision-making, one of them was that people fear hidden agendas and things like that. It is very important to the degree that one can to be open and to have decision-making processes that involve individuals in such a manner that you're building trust and you're building part of the understanding.

- Now, I'm curious as to what the status of this paper is now. Are you able to tell me, is it used routinely in government decision-making where Science is going to be called upon? Do you know what the status of this particular paper is?
- A I don't, and it's been some time since I was up there in this Science capacity. So it would be interesting to find out if it's still sort of the boilerplate of the way the federal government approaches things.
- MR. LEADEM: All right. Might this document, Conservation Coalition document number 5, be marked as the next exhibit, please.

THE REGISTRAR: Exhibit 906.

EXHIBIT 906: A Framework for Science and Technology Advice: Principles and Guidelines for the Effective Use of Science and Technology Advice in Government Decision Making, Government of Canada

# MR. LEADEM:

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I want to go back just briefly to some of the comments that you made earlier in discussion with Mr. Timberg, because I found them to be really useful, I think, in terms of trying to guide us of where we should be headed. And I want to go back to this uncertainty concept that you talk about. And I'm going to suggest to you that there are certain ways that we can deal with uncertainties as they arise, and that you objectified it very well by referring to the Integrated Fisheries Management Plan. I want to expand upon that a little bit, and maybe take it from a higher level. And I would say that if you've got a situation that involves a lot of uncertainties around it, that it's important that there be a free exchange of information around the uncertainties so that you have as many minds turning their attention to solving whatever issues are caused by the

uncertainty as possible. Would you agree with that? I'm thinking about a collaborative approach of science along with economics, along with sociologists, with people from various sectors turning their attention to it. And I think you were headed in that direction. I think that it all revolves around trying to make public policy and trying to make management decisions in the face of very different perspectives and very different objectives that people come to the table with. For example, 

people come to the table with. For example, somebody who is worried about paying the bills tomorrow is going to have a very, very high degree of concern about making a short-term adjustment to their access to fisheries resources or whatever. Somebody who values the kind of non-consumptive values that we talked about earlier has a very different perspective on being able to walk through the forest and have it intact and everything about it reflect that biodiversity.

Now, I think often those peoples are -- they come from very different perspectives. We all bring our own into the room, and so when we get into these kinds of consultative fora and start to talk about where we go for the future, what may not be happening is effective communication between those quite divergent interests, and, you know, fear of losses in the short term working against embracing important conservation concepts for the future. So we've got to find a better way of talking, I think, is what it's all about, sir.

- It's not just a better way of talking and communicating and sharing that information, but it's also making sure that everyone who, as you say, coming to the table, everyone has a place at the table, so that all the First Nations that have been that might be impacted by decisions involving fisheries, the environmental groups, the stakeholders, the commercial fishers, they all have to have a place at that table. And otherwise, you're going to be leaving somebody on the out and your decision is going to not be as comprehensive as you ought to have. Do you agree with that?
- A I think I do in a general way. Those groups would argue, though, that there are those that have a very strong stake in the resource, and of course

 we have the responsibilities under the Constitution and under the special provisions for First Nations that have to be respected. So it would be difficult for me to stand here and argue that you have to treat First Nations exactly the same way that you treat everyone else. There's a special responsibility, and there's in fact an obligation of the Department to consult and to respect those kinds of fiduciary responsibilities. So that is a somewhat different aspect of things.

But there is also a need to try when we're making decisions to bring all the different people to the table. And that's why I think the Department is very interested in local area management and trying to develop approaches to coastal resource planning and management that involved people who really are part of the equation and part of the decisions about what you do in a given place.

- That's interesting, saying local area management, because if you look at the Fraser River, I mean, it's a big river and it goes through many, many ecosystems, as you know. But if you break it down into local areas and have the stakeholders in local areas approach it, that sounds to me that it might be much more manageable to resolve difficulties and to come to terms with issues on a local level, as opposed to Fraser River system wide.
- A It would be, if you were talking about some things like land use planning, or maybe water conservation, or something like that. The added difficulty with the Fraser River is these fish that transit from mouth to the top of the river, with people all along the way who have a direct interest in them. So they are in fact the integrator and if you do something in one part of the river, it's going to affect somebody else somewhere else, so you can't leave those folks out.
- I want to just end with a quick question about you mentioned that some of the consultations with respect to **SARA** involved talking to the provinces, and some of the provinces have their own species at risk legislation. And I just want to make it clear for the record, British Columbia does not have a species at risk legislation, does it?

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John Davis
Cross-exam by Mr. Leadem (CONSERV)
Cross-exam by Mr. Rosenbloom (GILLFSC)

- 1 A I think they all have parallel legislation, unless 2 I'm mistaken.
  - Q All right. Well --
  - A I may be wrong on that point and --
- 5 Q Okay.

- A -- needing clarification. But my understanding is they do, or they're in the process of putting it in place.
  - Q Or they should be. Would you agree with me that if they don't, they should be?
  - A Well, my understanding was that they were all doing it. The territories were behind, last I checked.
  - Q Well, that maybe lump us in with the territories, then, of British Columbia. As the last time I looked onto the statute books, B.C. did not have a species at risk or something like that piece of legislation.
  - A Perhaps you're right, sir.
- MR. LEADEM: I won't ask you to take judicial notice of that, Mr. Commissioner. If necessary, I'll lead evidence on the -- on the lack of provincial legislation in that respect.

Thank you, Dr. Davis. Thank you, that was an interesting discussion.

- A Thank you.
- MR. WALLACE: That's the risks of asking a witness for a legal opinion. Mr. Eidsvik. Mr. Rosenbloom.
- MR. ROSENBLOOM: I introduced myself previously to you.

  My name is Don Rosenbloom, counsel for Area D

  Gillnet, Area B Seiner.

### CROSS-EXAMINATION BY MR. ROSENBLOOM:

I want to focus in a very limited way in respect to your evidence, and in particular I want to speak generally to the issue of the matters that generally should be under consideration when looking at species at risk, for example, Cultus Lake. And I don't speak of the species listed necessarily under federal legislation, but just generally. And would you not agree with me in respect to the Cultus Lake situation there are many critical matters that really should be the focus of DFO when considering a threatened species such as sockeye in that lake system. You would agree with that, wouldn't you?

- 1 Α I'd agree that the Cultuses and any fish stock which is subject to harvesting and subject to all 3 of the environmental issues, variables, survival 4 characteristics, is a complex subject and there 5 are many aspects to the --6 Yes. Q 7 -- the management and conservation of that Α 8 resource. 9 And if we can just very generally maybe go through 10 the list of some of the more obvious ones, and 11 they've been spoken about today in your testimony, 12 obviously exploitation rate is an issue that one 13 focuses on in respect to these issues, correct? 14 Α Yes. 15 And also obviously one looks at issues of predator Q 16 eradication, in other words, pikeminnow and other 17 prospective predators --18 Α Correct. 19 -- eradication. Then one obviously looks at lake 20 habitat issues, for example, Eurasian milfoil? 21 Α Correct. 22 Water milfoil. Q 23 Correct. Yes. Α 24 One looks at recreational pursuits within that 25 water system from motorized vehicles to swimming 26 localities within the lake system? 27 Α Correct. 28 Q One looks at fishing, fishing that takes place 29 within sensitive areas within that water system, 30 I'm talking about recreational fishing. 31 Recreational fishing. Α 32 You agree, have I hit some of the... Q 33 You've hit a number of them, and in fact ones that 34 are all part of the recovery strategy or the 35 aspects that were associated with the low returns 36 of Cultus fish. 37 Thank you. Q
- 38 There's a few more. Α
- 39 Q Yes. And they are?
- 40 Important aspect is groundwater, and you'll notice 41 with respect to Cultus that that area is developed 42 particularly at one end of the lake where there's 43 a big housing development, and there was a lot of 44 groundwater upwelling in spawning areas associated 45 with that part of the lake.
- 46 Q And I gather the cottages that are found at the 47 perimeter of the lake are with septic tanks, are

they?

2 Α I'm sure they are, yes. 3 Q Thank you. 4 So there's basically the lake is an integration of 5 a whole number of human-related activities, and 6 it's a summer playground for people. 7 And you said you had another point that 8 probably should be on the critical list? 9 Α It was all this, all the aspects of survival of 10 the young fish going out, and, you know, their 11 ability to go from fry to smolts and enter the 12 ocean, and all aspects of the other parts of the 13 life stages associated with Cultus. 14 Thank you, Doctor. Now, my question to you is Q 15 this. You have testified this morning that you 16 were a participant with a number of the briefing 17 sessions with the Minister back in 2004 in respect 18 to this critical decision whether or not the 19 specie in question should have been listed under 20 SARA, correct? 21 Yes. Α 22 Can you tell me, did the Minister get 23 advised in respect to the remedial initiatives 24 that could be taken in respect to the list you and 25 I have just gone over, other than obviously 26 exploitation rate? 27 Α Absolutely. 28 Q Yes. 29 Α In fact, when the Minister first of all changed 30 from an emergency listing to a normal listing 31 process, it was on the basis of addressing all of 32 those things. And Minister Anderson was very, 33 very strong that we had to put in place those 34 remedial actions to try to rehabilitate the Cultus 35 stock. And subsequently Minister Regan in the 36 briefings was very much aware of the nature of the 37 action program that was being put in place and the diversity of issues that you've just summarized, 38 39 that was being addressed. 40 And having been a participant in that consultative 41 process with the -- or advisory process with the 42 Minister back in 2004, are you satisfied that 43 indeed the expectations that were spoken about 44 back in 2004 in terms of the remedial actions that 45 we speak of, have in fact been implemented? 46 Α Certainly at that time I was confident they were 47 being implemented, and I funded them, so my

responsibility was to approve those programs.

Now, whether they've all been carried through to
this day and time is another issue. I've kind of
lost the thread since I retired.

Q Right.

- A But I think a robust program was put in place, and I was satisfied that it was being delivered.
- All right. And in fairness to you, you have been retired for three years, and I don't intend to ask you to do an overview of whether things have unfolded since your retirement the way one expected. But in fairness, in the period until your retirement, are you satisfied that the remedial steps as discussed with the Minister back in 2004 were robustly, to use your language, implemented?
- A Most of them. I mentioned one earlier which was where the exploitation rate that was set at the 10 to 12 percent --

Q Yes.

- A -- was exceeded in one of the years, and I'm not sure that that was intentional, but it was a result of whatever unfolded in that fishing season. So there's those kinds of issues that could be looked at.
- Yes. But focusing on the list, other than the exploitation rate, for example, the eradication of milfoil within the lake system, are you saying to us today that you believe from 2004 until your retirement that DFO effectively dealt with that remedial initiative?
- A At the time it was initiated, I was certainly comfortable that a robust program was being put in place. In subsequent years I did not go back to check that each and every one of them was thoroughly evaluated. That would be an excellent question for some of the other folks who are going to testify as to what the track records of success was with this.
- Q But in the period -- and I appreciate, yes, we will ask to the next panel.
- A Yes.
- Q But in terms of your stewardship of these initiatives, when it came to the milfoil, are you suggesting that until your retirement, 2004 until your retirement, DFO aggressively carried out a milfoil eradication program?

- A I'm not sure about the milfoil, specifically. I was comfortable that a comprehensive set of initiatives were being put in place to recover the stock, so...
  - Q All right. I appreciate that. But I would like to deal with each of what I'll call the remedial initiatives one by one. When it comes to milfoil, is it your testimony, and I'm not trying to in any way be confrontational with you, Doctor, but is it your evidence that you're not sure at this time whether between 2004 and your retirement there in fact was an effective milfoil eradication program?
  - A As far as I knew, there was a comprehensive program in place. I did not go back and do a comprehensive audit of each and every one of those initiatives.
  - Q All right. And we'll come to this tomorrow with the other panel. Going through the list, for example, the predator eradication, pikeminnow in particular, would you agree with me, sir, that that initiative has for the most part been funded by the commercial industry and not by DFO?
  - A Hmm, I was not aware of that.
  - Q Were you --

- A But I was aware that we had put money into the initial program to fund the what I thought was the pikeminnow program.
- Q Yes. And is it your belief that DFO has put significant funding into that initiative in addition to the commercial investment, commercial industry investment?
- A Certainly initially. And again I'd suggest to follow up on that.
- I appreciate that. What about the other remedial initiatives as we discussed them in the list at the start of my cross-examination with you, with habitat restoration. We spoke of the groundwater issues, and so on. Do you recollect during your tenureship of this initiative that these initiatives were being pursued robustly, to use your language?
- A I think some of the habitat work was done in the early years of that program. I'm not sure how far it went later. One has to recognize, too, that I had a responsibility from Ottawa to oversee the implementation of these programs and the recovery initiatives, to find the funding for them. And

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the overall accountability for putting things in place and delivering rests with the RDG and with the regional staff, and there was a necessity then for them to follow up.

- And so is it fair to say that you are not too much in a position to really give us your take on whether or not these initiatives have been effectively carried out or implemented by DFO?
- Α That's correct. But I would suggest it's a very useful thing to follow up, and for two reasons, to look at the robustness, if you wish, of it, and secondly to evaluate what has actually worked and what hasn't worked. Because when one makes these kinds of investments in programs, and on the basis of understandings that indeed they would go towards the betterment of the recovery of the resource, what can we learn from that from the standpoint of techniques that might be applied with other species, other stocks in other locations.
- And when you were a participant in advising Yes. the Minister back in 2004, was there scientific analysis given to the Minister at that time whether these remedial steps we've just been going through on our list would in fact resolve, or at least complement the ER decisions when it came to ensuring the stability and abundance of the specie?
- Well, certainly when specialists in the region, who through a recovery team are tasked with the job of coming up with a recovery strategy, that has in place a number of different activities, one takes on board the fact that you've got the best group of people assembled to provide the necessary advice. And that it represents a comprehensive and effective way of improving the chances of recovering the stocks. So when we're briefing the Minister, we're telling the Minister this is the suite of programs that the region has come forward The nature of the work complies with the assessment by COSEWIC of the causes of leading to the declines of the resource, so you've got a suite of programs addressing those initiatives, and one has confidence in the regional staff that a good comprehensive program is being put forward. So the best of your memory, the Minister would

confidence that had these programs of, what I'll call remedial programs, been effectively implemented, that that would make a significant difference to the stability of the resource, of the specie.

- He would have walked away with some confidence, Α but also part of that discussion was, "Minister, despite our best efforts, these stocks may continue to decline. We are not all-knowing and all-seeing. There may be circumstances or causes that have not been described that will lead to a continuing decline, and, Minister, you may be faced with a situation further on in with listing that the stocks continue to decline, there will continue to be a situation where you can only allow a little bit of allowable harm, or none, and consequently there is no certainty. This is the best we can do, but it is by no means a guarantee of success."
- Q But the advice given to the Minister was predicated upon significant funding being advanced for the remedial program that we've spoken about.
- A And the remedial program being put in place with those provisos that I mentioned.
- Q Yes. And, Doctor, you being the gatekeeper of the financial side of these remedial programs during those early years, were you satisfied that the monies being allocated by government to your office would effectively ensure the implementation of these remedial programs?
- The monies that we provided were the monies that were necessary to do the work according to the proposals that came forward. So in essence we were allocating the resources that were asked for by the region, recognizing, too, that the region also was investing people, time, salary, and regional resources, as well. And of course, we had a budget that had to deal with a whole number of endangered species, so funding issues across the country. But we never denied the funding to the Sakinaw and Cultus program, and even though they weren't listed, I insisted that that funding be continued for the recovery initiatives.
- Q So you are saying that the region received all the money that they requested in respect to these remedial programs?
- A We funded the requests that came in from the

region.
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- Q But that isn't quite answering my question. But to the degree that the monies that were requested by region were received by region?
- A As far as I know.
- Q All right. Now, I just have a few more minutes. I want to speak to Exhibit --
- MR. WALLACE: Actually, you don't actually have a few more, but that's the allotment as I see it, but if you have a couple more questions, please...
- MR. ROSENBLOOM: Thank you.
- Q Exhibit 899, which is a document which Mr. Lunn will put up. And you were speaking to this as I believe the last series of questions by Mr. Wallace to you before lunchtime. And you were referred to page 2 of that document, and you were referred to the third column, and you were referred to the top paragraph, and you were referred in part to mid-paragraph, which reads:

The first is a reluctance by wildlife management boards and the Department of Fisheries and Oceans to accept the additional stewardship responsibilities required by **SARA**.

And you were asked about that, and you said "I don't agree with that." Are you suggesting -- and you testified this morning that you believe that DFO has embraced the stewardship responsibilities in respect to Cultus Lake and the threatened specie at Cultus Lake; is that correct? Is that your evidence?

A My evidence was that way ahead of the requirements in SARA and before the requirement made it necessary to put in place a recovery strategy, the Department took a lot of action in terms of changing the nature of the fishery and putting in place the recovery initiatives that we've talked about. And that to me is evidence of accepting stewardship responsibilities. And all of our approach to endangered species across the country was to get out ahead of SARA with respect to putting in place those recovery actions and stewardship initiatives.

So I think that the Department did accept that, very much so, and saw **SARA** as a useful and

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John Davis
Cross-exam by Mr. Rosenbloom (GILLFSC)
Cross-exam by Mr. Eidsvik (SGAHC)

complementary piece of legislation whereby the **Fisheries Act** could by used, as well. I would put to you, sir, if we didn't have **SARA**, I wonder if we would have done all of the things that we did with respect to Cultus and Sakinaw and whether or not there would have been a program for those two stocks that cost nearly a million dollars and continued for a number of years.

- Q Well, you and I have had an exchange this afternoon about the degree to which DFO has in fact effectively implemented remedial steps at Cultus Lake, and because of your retirement for three years, you have acknowledged you're not really au courant with exactly where things stand now, correct?
- A Correct.

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- Q And therefore the question whether DFO has continuously been an effective steward of the issues of specie at risk at Cultus Lake are really beyond your personal knowledge at this point in time because you obviously have been away for some time; is that not fair to say?
- A I've been away for several years, and, yes, I didn't carry out a comprehensive audit in the last years of my tenure. But as far as I knew, the Department was taking effective action.
- MR. ROSENBLOOM: Thank you. I have no further questions.
- MR. WALLACE: Thank you, Mr. Rosenbloom. I have Mr. Eidsvik at a ten-minute estimate.
- MR. EIDSVIK: Good afternoon, Mr. Commissioner.
  Philip. Good afternoon, Mr. Davis. Philip
  Eidsvik for the B.C. Fisheries Survival Coalition
  and the Area E Gillnetters.

## CROSS-EXAMINATION BY MR. EIDSVIK:

I was interested on the issue of science. Mr.
Rosenbloom has asked some questions that I was
going to ask, so that saves us some time today.
And you say that generally when you meet with
people, everyone wants to save salmon and make
things better. But often their interests, when
they get directly involved, there's a change of
attitude. And I guess as an example would be park
visitors are an issue at Cultus Lake. Do you have
any idea how many park visitors a year, roughly?

- 1 A No, I don't, but, you know, having gone up there 2 in the summertime, I don't want to be there in the 3 summer, so there's a lot of people.
  - Q Yes. It wouldn't surprise you if it was in the millions?
  - A Not at all. I mean, it's an amusement park in parts.
  - Q Now, people that visit the park might have a -- if you had to decrease the amount of park visitors to save Cultus sockeye, they might say, no, I still want to go to the park, close fisheries, or do something else. Is that possible?
  - A I guess that's possible, I mean --
  - Q Real estate developers who want to develop on the lake, they might say, no, stop the swimmers or the visitors, but let us develop our real estate.
  - A It's an example of the kinds of mixed objectives that people bring to the table.
  - Q So at some point somebody has to say, this is what we're going to do, because you're not always going to get agreement from all people.
  - A That's correct.
    - Q And under the **Constitution** that's DFO.
- 24 A Yeah.

- Q So just to quickly follow up on a couple of questions that Mr. Rosenbloom asked, so in terms of park visitors, did DFO do anything to limit park visitors?
- A Not to my knowledge, and I'm actually not sure what the jurisdictional issues would be there, and how DFO would approach that. And maybe you could be more specific from the standpoint are you aware of activities from park visitors that are threatening the survival or the rebuilding of Cultus?
- Yeah, I think we'll go on that tomorrow with your other crew. Other than, and I guess the question that both Mr. Rosenbloom and I are interested in is other than fishing, we've seen some activities, have we seen any decrease in real estate development or sewage lines into the lake that DFO's controlled?
- A I haven't looked at that recently. My impression, going up there a few years ago, was that the development was perhaps somewhat static, but I may be wrong.
- Q So far as building docks on beaches like Lindell

Creek, one of the spawning areas, DFO ever take 1 the docks out of there? 3 You'll have to ask the regional folks. Α 4 Okay. That helps, and I think it would be really 5 helpful if we had a summary of what exactly DFO 6 did and when. 7 Talking about the pike removal program, were 8 you aware of a pike removal program run by the seine sector in the early '90s, late '80s? 9 I can't recall, no. I do recall a lot of interest 10 11 coming from seiners and from that sector in this program, but I can't remember just how it was 12 funded or who did it, and that sort of thing. 13 14 Do you remember when the first pike removal 15 program started post-COSEWIC review? 16 Α No. 17 No. Would it surprise you that the Area E Q 18 Gillnetters threatened a protest fishery with 19 gillnets to get pike out of the lake if DFO didn't 20 begin one? 21 It wouldn't surprise me. Α 22 And would it surprise you that Area E Gillnetters 23 ran the first pike, northern pikeminnow removal 24 program? 25 It wouldn't surprise me, but I think it's awesome. Α 26 I mean, that's the kind of thing that we should be 27 talking about in terms of how various people can 28 contribute to conservation. I think that's good 29 for the Area E. 30 Did you recognize that there was a large degree of Q 31 frustration that industry thought DFO was moving 32 too slow on some of the remedial programs like 33 pikeminnow removal and milfoil? I'm not aware of that, but certainly likely. 34 Α 35 Q The last question I wanted to ask was about 36 science, and we've talked a bit about that. 37 I've noticed, and maybe perhaps you might have, 38 have you seen the politicization of science, 39 fisheries science, in the past 15 to 20, 25 years? 40 I don't think so. Α 41 I'm talking about if you had the scientists with 42 the Suzuki Foundation talking about, say, the 43 impact of a cold water release at the Kenney Dam, 44 they might have a different opinion than the 45 scientists for Alcan? Those are the kind of

things I'm thinking about. Scientists for the

Suzuki Foundation might have a different view on

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John Davis
Cross-exam by Mr. Eidsvik (SGAHC)
Cross-exam by Mr. Harvey (TWCTUFA)
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Cultus Lake ability to rebuild it at a certain 1 exploitation rate than a scientist for the 3 commercial sector.

- Well, I could see that the different groups and different organizations would use scientific information according to their particular perspective, and that people may spin science in that way. I think that's human nature and that's basically the kind of debate you see about climate change. Where folks come forward who are basically climate change deniers and, you know, they're touted to have scientific expertise that says none of this is happening, folks.
- Even your use of the word "deniers", some would say that that was a pejorative term for the scientists who -- so there's, what I'm saying is --
- Α Yes.
- -- there's a debate in science much the same as the debate goes on in politics, but in the end DFO has to make the choice because they have the constitutional authority.
- DFO. The buck stops with DFO (indiscernible overlapping speakers).
- MR. EIDSVIK: It may not be that we can't all hold hands around the table and sing "Kumbaya", DFO might have to lay down the law. Thank you, Mr. Davis.
- Thanks, Phil.
- MR. WALLACE: Mr. Harvey?
- THE COMMISSIONER: Mr. Wallace, are you planning to take a break this afternoon?
- MR. WALLACE: What a good idea. Thank you.
- THE REGISTRAR: The hearing will now recess for ten minutes.

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(PROCEEDINGS ADJOURNED FOR AFTERNOON RECESS) (PROCEEDINGS RECONVENED)

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Order. The hearing is now resumed. THE REGISTRAR:

41 MR. WALLACE: Mr. Harvey? 42

MR. HARVEY: Yes.

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# CROSS-EXAMINATION BY MR. HARVEY:

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Dr. Davis, I'd like to start off by referring back to the last question, I think, last answer you

gave to Mr. Wallace's question and the first 1 answer to Mr. Timberg's question. You said, "If 3 my note is right that the Department was in advance of SARA and that everything was done that 5 would have been done under a SARA listing with 6 respect to the Cultus stocks." 7 Yes, I felt there was a comprehensive program put 8 in place to address the concerns associated with 9 Cultus and a broad suite of initiatives was put in 10 place, funding was found and it was done in 11 advance of the timelines of SARA. 12 And I think in response to Mr. Timberg's 13 question you said that the incidental harvest had 14 been reduced since 2001 and habitat restoration 15 programs go underway. 16 Α Yes. 17 So I'm going to look in a moment at the Q Yes. 18 record from 2001 on but when you say everything 19 was done that would have been done under SARA 20 listing, you would concede, I think, that the 21 socioeconomic analysis that is required by section 22 49(e) of the **SARA Act** was not done. 23 Can you remind me, sir, what 49(e) refers Α Okay. 24 to? 25 Well, let's see. **SARA** requires both a recovery Q 26 plan and an action plan, I think. Would you agree 27 with that in general terms? 28 Α Yes. 29 And under action plan, 49 deals with the contents. Q 30 It says: 31 32 An action plan must include, with respect to 33 the area in which the area in which the 34 action plan relates... 35 36 - identification of critical habitat, et cetera -37 38 And then (e) says: 39 40 ...an evaluation of the socio-economic costs 41 of the action plan and the benefits to be 42 derived from its implementation. 43 44 So there's a statutory requirement for 45 socioeconomic evaluation under SARA.

There is in terms of the description as it relates

to the action plan; however, SARA requires that

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the first ting that you do is put in place a recovery strategy so action plans were intended to come later and be informed by the recovery strategy. In fact, action plans are later in the sequence of activities so there was no requirement on initial listing to develop a full-blown action plan at that stage.

But correct me if I'm wrong. What I gather from

- But correct me if I'm wrong. What I gather from the documents is that a socioeconomic analysis is one of the early matters that has to be done before a recovery plan can be drawn up?
- A No, no.

- Q Because is not in this context, we're dealing with Fisheries, an allowable harm assessment part of what has to go into a recovery plan?
- A Yes, an allowable harm assessment has a look at what allowable harm can take place; in other words, how many of those fish could be harvested without jeopardizing their recovery? So that's a legitimate piece of the initial activity. In fact, there is paper in some of Commission counsel's documents that refers to the allowable harm assessment aspects of it. So that's a key piece but that is not a socioeconomic analysis.
- Q All right. But you don't get a recovery plan before you get a listing or you don't get the statutory requirement for a recovery plan or an action plan before a listing, do you? Listing comes first.
- A Listing comes first under the Act.
- Q Yes.
- A My point that you started your question on was talking about some of the things that I had described that happened in advance of **SARA**. And my pint was that the Department funded and put in place recovery initiatives prior to having to do so under the requirements of **SARA** legislation.
- Q Yes. But if a listing was to be considered for Cultus, then a socioeconomic analysis would have had to have been done, wouldn't it, to guide the listing authority?
- A Well, the way it would have, if it had played out exactly according to legislation, the listing would have happened, then the recovery strategy for an endangered species would have had to be put in place within one year of listing.
- Q Yes.

- 1 And mind you, we're ahead of the game. Α 2 Q Yes. 3 Α And then down the line, later on, a full-blown 4 action plan that takes the framework that the 5 recovery strategy developed and expands it in a 6 more meaningful way, would be put in place. And 7 that's several years out after listing. 8 All right. I'm sorry. Did you agree or not agree 9 that a socioeconomic assessment is an integral 10 part of the listing process? 11 Α No, I didn't agree, sir. 12 All right. I'm sorry. I can't put my finger on 13 it but I thought that the government requires or 14 the agency that makes a listing determination 15 requires a review of the socioeconomic 16 implications of listing. 17 Socioeconomic implications can be considered by Α 18 cabinet in the GIC decision-making process. 19 Q Yes. 20 Α So it can be part of that process. But in terms 21 of the way the COSEWIC advice is dealt with and 22 the biological advice associated with a threat to 23 the stock, that is not a requirement of that part 24 of the process. 25 All right. Q I see. Well, whenever the appropriate 26 stage for the socioeconomic analysis comes in, it 27 was not done by 2001 when the Department began to 28 get ahead of SARA and to reduce incidental 29 impacts. 30 In 2001, SARA legislation didn't exist. Α 31 Yes, but that's when the incidental harvest 32 reduction began, according to your evidence. 33 When the Department started to recognize that 34 there was concerns about the status of Cultus Lake stocks and in 2002, from the evidence COSEWIC 35 36 first made its assessment, that they would be 37 putting forward to government. And you'll see 38 that that was based on evidence coming from 39 Departmental scientists who had written the 40 documentation that COSEWIC used. So that is an
  - Yes. I'm going to ask you to look at a document I put in at Tab 4 of my materials. And it's the last page. It's a whole lot of statistical

indication that within the region there was

recognition and scientific work being carried out

that flagged the problem with Cultus and Sakinaw

stocks.

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analyses. But I want to refer to the 2001 period on. We'll probably have to identify this later, 3 Pacific Salmon Commission data. And then 4 following that, I've done an analysis comparing 5 the exploitation rates. 6 MR. HARVEY: Do you have the second, third and fourth 7 page, Mr. Lunn? 8 MR. LUNN: Yes, I do. 9 MR. HARVEY: 10 Comparing the results of the 2001 going forward, 11 harvest reduction. If we go to the last page in 12 that tab. 13 MR. LUNN: I have four separate documents under that 14 tab. 15 MR. HARVEY: Yes, all right. It's this one. 16 MR. LUNN: Is it? 17 MR. HARVEY: Yes. 18 MR. LUNN: Okay. 19 MR. HARVEY: 20 I don't think I can thoroughly explain the whole 21 thing but basically this compares the escapement 22 levels, which, of course, involved exploitation 23 levels. According to the model that existed up to 24 the end of the '80s and compares it with the model 25 in later years and in particular, from 2001 on. 26 And you'll see starting in 2001 and 2002, if we go 27 to the right-hand column, the landed value of 28 excess escapement in the terms of excess over the 29 pre-existing --30 MR. TIMBERG: Mr. Commissioner, I'm sorry to interrupt 31 but I'm just questioning what the source of this 32 document is. Where this information came from? 33 MR. HARVEY: All right. Well, I'll explain more fully. 34 I'm trying to quickly. The basic statistics come 35 from the Pacific Salmon Commission. And this is 36 my own analysis that I've done because, in the 37 absence of any analysis that I've been able to find in any of the ringtail documents, and it 38 39 compares the old style with the new style 40 basically, the new style being a lot more fish up 41 in the spawning grounds and a lot less

And it attempts to be a value on

And it compares with the 125 million value that

put in. And it shows in the right-hand column,

for example, starting in 2001, the difference in

was in some of the documents, Dr. Davis, that you

exploitation.

that in economic terms.

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landed value, 51 million in 2001, 107 in 2002 and on down as a result of less exploitation and more fish on the spawning grounds. Now, I don't expect you to say whether that's correct or incorrect in that analysis and we'll have to deal with the arithmetic later. MR. TIMBERG: And is this for Cultus only or where? MR. HARVEY: This is as a result of the change in style from 2001 on. It actually gets worked back before that. But the reduced harvest levels. stock management --MR. TIMBERG: But for which runs? Just so I can 

- MR. TIMBERG: But for which runs? Just so I can understand where -- like is this for sockeye salmon in the Fraser River? Or where are we talking?
- MR. HARVEY: Yes, Fraser River sockeye.
- MR. TIMBERG: The entire Fraser River?
- MR. HARVEY: It includes all the runs.
- Q Because, Dr. Davis, you appreciate, do you not -MR. WALLACE: Excuse me, Mr. Commissioner. Mr. Harvey,
  this evidence should be tendered somehow. It's
  not attributed anywhere. I don't see anything
  about the source of any of it and I gather the
  panel on the right is your own arithmetic; is that
  correct?
- MR. HARVEY: The analysis is it'll be a document I'll be using in final argument. The first is based on the statistical data in the first sheet which is Pacific Salmon Commission data, which I will have to, as you say, properly identify in the course of it. But what I'd like to do, and I'm trying to do it in a very short space of time, is deal with the facts and the socioeconomic consequences of the change in harvest management that took place in the last couple of decades, particularly from 2001 on. At this point, I'll just ask that it be marked as a lettered exhibit for identification so that I can get to my question to Dr. Davis. Is that acceptable?
- MR. WALLACE: Well, I don't know what to say. You're making a very large leap and asking the witness to make huge assumptions so I'm not in favour of this going in at all.
- MR. TIMBERG: I'll file an actual objection to this document being utilized. We've had no notice. This was provided in a bundle of documents last week without any identification or explanation or

advance notice of the content of the document nor of the calculations. Dr. Davis has had no ability to consider this. It seems to be more in the sense of like an expert opinion where my friend's attributing values and numbers himself and is asking the witness, without any notice, to speak to it. So I object to this being tendered.

- MR. HARVEY: All right. Well, let me withdraw it. But to give Mr. Timberg notice that with the Wild Salmon Policy witnesses, I will again be attempting to get the statistics before them, the statistics that show the results of the Wild Salmon Policy. So perhaps Mr. Timberg will take up my invitation to discuss these documents with the witnesses.
- MS. GAERTNER: Well, perhaps I'll just register my concerns about this document, if the intention is to use it again. It's Brenda Gaertner for the First Nations Coalition. I found the document extremely confusing. I don't know which is your analysis or which is independent information. It seems to circle in years and so it's unclear what cycle you're using or what reliance you are. And if it is something that you've created, Mr. Harvey, I think this is a matter for final submissions, as distinct from an exhibit in this hearing.
- MR. HARVEY: Yes, it is for final submissions. But the statistical data is data, being the first page is data which obviously has to go in as part of the evidence. And what counsel do with that data is for final submissions. But I don't want to absorb my time by arguing about this.
- Q Let me go instead to Dr. Davis' evidence that 125 million was the calculated loss over a four-year time period, if I have it right, or would be, as a result of Cultus listing; is that as I understand it?
- A No, that's not correct. That was second on Cultus to get it.
- Second on Cultus, all right. Well, with that qualification, it is right that second on Cultus listing has been calculated by somebody in the Department has having a price tag attached to it of 125 million over four years.
- A Yeah, and you'll find that in some of Commission counsel's documentation.

- All right. And you've agreed with me that you've been doing pretty much exactly what you would have been required to do under **SARA** listing through the modern style of harvest management commencing in 2001?
  - A I've stated that a comprehensive plan was put in place that included harvest management changes and a number of other initiatives to assist in the recovery of the stocks.
  - Yes. All right. Would you agree with me, and I'm now referring to your evidence, and you were certainly quite forthright in saying this, that proper social information, proper economic information is required in the decision-making process to assess the implications of the various choices?
  - A Yes, I've agreed that indeed we needed more robust socioeconomic analysis and the Department did put in place that police initiative to draft a framework for socioeconomic analysis.
  - Q Yes. And what you also need is ecosystem-based biological information from the discipline of population dynamics, do you not?
  - A Well, interesting. Perhaps you could explain to me what you mean by "ecosystem-based approach".
  - Q Well, it's a broad term but if I could narrow it down. In this field where you're dealing with a number of different Fraser River sockeye stocks, if you reduce exploitation in order to deal with a weak stock, you are going to end up having to reduce exploitation on the stronger stocks as well?
  - A That's correct.

- Q That's correct?
- A When they're comingling.
- Q All right. And that will have the result of putting more of the stronger stocks into the rearing lake system, correct?
- What that does is changes the distribution on the spawning grounds but that, in fact, is not ecosystem-based management per se.
  - Q But you would want to have the information as to the detrimental effects, not only the socioeconomic effects but also biological effects of dramatically increasing escapement on the stronger stocks, would you not?
  - A Yes, when we were talking about that earlier, we

talked about where you set the bar and how you devise a plan that deals with those mixed stock relationships. And of course, if you're protecting the weaker ones you will have to suffer in mixed stock fisheries a reduction in the catch of the stronger stocks. And biologists also have to think about how many fish is that going to put on the spawning grounds? What is the optimal spawning density? And in the case of the Fraser, with all of the problems of survival and fish passage in-season, how do we get those fish to the spawning grounds in the appropriate numbers to optimize spawning?

- Yes. But there's a limit to the carrying capacity on the spawning grounds and also in the rearing lakes for the progeny of the spawners, correct?
- A Yes, this is an issue.

- Q All that has to be taken into account because by focusing on the weak stocks, you may be doing harm to the ecology that supports the strong stocks, correct?
- A I'm not sure "doing harm to the ecology" is correct but you might be creating a situation where you have over-spawning and so you've foregone some benefits that could have been enjoyed or you have multiple spawning happen where fish are spawning on top of the location where others spawned and disturbing the reds all those sorts of things. So it's very much a balancing act and one that requires a good sound look at those sorts of things.
- Q Well, we've had some evidence here that the two successive years of very large spawners in the Quesnel system, 2001 and 2002, caused what Dr. Peterman called a long-term decline affecting those stocks. That's what I mean by --
- MR. TIMBERG: Mr. Commissioner, that's not my recollection of Dr. Peterman's evidence on harm flowing from Quesnel Lake.
- MR. HARVEY: Well, the record will show that.
- Q But you agree with the concept, that, biologically speaking, you can exceed the carrying capacity of the rearing lakes and thereby do harm to those stocks?
- A Well, one thing to think about in this context is that that happens naturally and has happened before any kind of human interventions and in

years where there's very abundant returns. That's probably gone on since time immemorial. But from the standpoint of fine-tuning fisheries, it's desirable to try to get the right number of spawners to the spawning grounds and to optimize the ability to harvest them as well.

Yes. And that's what the Department is expected

- Q Yes. And that's what the Department is expected to do, is it not?
- A The Department is expected to do its level best to manage the fishery as best it can.
- MR. HARVEY: All right. Now, with all the problems I'm probably going over the time but I understand that Ms. Gaertner would prefer to start tomorrow morning in any event.
- MR. WALLACE: I am trying to have this witness completed as quickly as we can because we have a long week ahead of us.
- MR. HARVEY: All right.

Well, let me go through quickly then the remaining matters I wish to put to you. Exhibit 891, you were asked about. In Exhibit 891, there's this statement that I got from my note, that:

The incremental effects of listing hinge, to a large degree, on the ability to issue incidental harm permits under the Act.

And I think it's section 73 of the Act. Because listing does not mean that you stop all the harvesting; it just means that you stop harvesting that is not covered either by the recovery plan or permits, correct?

- A Listing a species requires an assessment of whether there can be any additional harm. The Act requires that if there is incidental harm that will affect the survival and recovery of the listed species then that should not take place. However, there could be a scientific assessment to say we will allow some incidental harm. The stocks are not so depressed there can't be any incidental mortality. And so in order to be able to catch/retain in any way a listed species, one has to have an incidental harm assessment done and the ability of that incidental catch to be encountered without jeopardizing the possibility of recovery.
- Q Yes. And that's basically what the Department is

- doing, not under the SARA, but under the Wild
  Salmon Policy and its management structure, as
  you've described it?
  Under the Wild Salmon Policy, I'm not -- I've been
  talking about SARA. But under the Wild Salmon
  - Policy, I think the Department is attempting to manage to conservation units, as I understand it.

    But basically what it's doing is it's attempting
  - Q But basically what it's doing is it's attempting to mirror what would have happened under a SARA listing, correct?
  - A I'm not sure about that. I think the Wild Salmon Policy is designed to protect weak stocks and to identify weak stock components.
  - Q Well, it must be the way I'm putting the question. I'm just referring back to you general evidence that the Department is doing -- everything is done that would have been done under a **SARA** listing.
  - A With respect to the application of the **Fisheries** Act.
  - Q Yes, yes. And instead of a permit under **SARA** allowing some harvesting of Cultus, the harvesting is being done under the Fisheries Act licences and open and close time management, correct?
  - A Cultus is being managed under the normal provisions of the **Fisheries Act** and on the regulations and approaches that are used in day-to-day application of the **Fisheries Act**.
  - Yes. Now, my clients are from the commercial sector but they have the feeling that they would have been better off under SARA because then there would have been the statutory requirement for a socioeconomic assessment and there would have been the assessment of the allowable harm and there would have been the five-year review that's called for under the Act. Would you care to comment on that?
  - A It's an interesting view and you seem to have associated the socioeconomic assessment with an action plan which would have been a number of years down the road after the recovery strategy. My impression of what could have happened, particularly in years of poor return, is a very, very curtailed west coast fishery on returns of Sakinaw and Cultus fish coming back to the Fraser River and a very significant impact on your clients. So I'm not sure I agree with that.
  - Q Well, you say that. But they would have at least

had the benefit of a socioeconomic impact
assessment by now, as required by **SARA**, wouldn't
they?

- A Well, we've said that the only socioeconomic assessment that is really required under the legislation was the socioeconomic factors being considered by GIC at the time of listing. And you'd mentioned it's your position that, with an action plan, there should be a requirement to do socioeconomics. And I've agreed earlier on that robust socioeconomics informs the process and informs the decisions taken by the Minister. But I think one has to be careful in terms of attributing what the future might or might not have been based on the application of that particular approach.
- Q All right. Well, I won't ask you to speculate.
  MR. HARVEY: But I would like to finally refer to
  Exhibit 892 that was put in earlier today, two
  factors in here. First of all, at page 1, which
  is ringtail 002. I'm sorry. This is Tab 10-F so
  I think it's 892-F probably.

MR. LUNN: 892-F, yes.

MR. HARVEY: Yes. Over the page to ringtail 002.

Q And this is a 2004 document but it does say at the beginning of the fourth paragraph down:

As an allowable harm assessment has yet to be undertaken...

So there was at this time no allowable harm assessment. Has there yet been an allowable harm assessment, to your knowledge, in this sense?

- A My understanding was that Science, DFO, did do an allowable harm assessment analysis as part of this process. The reason that it's referred to there perhaps as has not yet been undertaken is maybe the timing sequence. There's some other paper somewhere in the process that talks about DFO Science doing allowable harm assessment.
- Q I see, all right. On this document, if I could go to the next page, top of the next page, this just summarizes what is later in page 13 of the document, but it says:

The analysis demonstrates that the northern east coast of Vancouver Island has the

96
John Davis
Cross-exam by Mr. Harvey (TWCTUFA)

1 highest concentration of dependence on Fraser 2 River sockeye. Many of the coastal 3 communities in this area face significant 4 challenges, as these communities are among the least economic diverse economies in 5 6 British Columbia... 7 8 Et cetera, et cetera. This is the sort of 9 socioeconomic impact assessment that you've been 10 talking about, I think, is it not? 11 That's a piece of it --12 A piece of it. 13 Α -- with respect to having a look at how people are 14 dependent on fisheries up and down the coast and 15 areas where a number of your clients would be 16 actively fishing. 17 Yes. Well, this note, and this is on page 13 of 18 the report, communities affected that they're 19 talking about are Port Hardy, Port McNeil and 20 Alert Bay. And I think I saw in one of the other reports, Quadra Island. 21 22 MR. HARVEY: Those are my questions, thank you. 23 Thank you. 24 MR. WALLACE: Mr. Commissioner, Mr. Harvey has 25 successfully run out Mr. Gaertner's clock so 26 that's it for today. 27 THE COMMISSIONER: Well, I understand the Doctor will 28 be finished his testimony by the morning break 29 tomorrow morning; is that correct? 30 MR. WALLACE: That's my -- yes. 31 Thank you. THE COMMISSIONER: 32 THE REGISTRAR: The hearing is now adjourned for the 33 day and will resume at ten o'clock tomorrow 34 morning. 35 36 (PROCEEDINGS ADJOURNED TO MAY 31, 2011, AT 37 10:00 A.M.) 38 39 40 41 42 43 44 45 46

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

# Karen Hefferland

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# Diane Rochfort

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

#### Pat Neumann

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

## Karen Acaster