

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:**

Room 801  
Federal Courthouse  
701 West Georgia Street  
Vancouver, B.C.

Thursday, March 17, 2011

**Tenue à :**

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

le jeudi 17 mars 2011



### Errata for the Transcript of Hearings on March 17, 2011

Page	Line	Error	Correction
75 - 77	top of page	Cross-exam by Mr. McDade (AQUA)	Cross-exam by Mr. Prowse (BCPROV)

## **APPEARANCES / COMPARUTIONS**

Brian Wallace, Q.C. Lara Tessaro	Associate Commission Counsel Junior Commission Counsel
Mitchell Taylor, Q.C. Hugh Macaulay	Government of Canada ("CAN")
Clifton Prowse, Q.C. Tara Callan	Province of British Columbia ("BCPROV")
No appearance	Pacific Salmon Commission ("PSC")
No appearance	B.C. Public Service Alliance of Canada Union of Environment Workers B.C. ("BCPSAC")
No appearance	Rio Tinto Alcan Inc. ("RTAI")
Shane Hopkins-Utter	B.C. Salmon Farmers Association ("BCSFA")
No appearance	Seafood Producers Association of B.C. ("SPABC")
Gregory McDade, Q.C. Lisa Glowacki	Aquaculture Coalition: Alexandra Morton; Raincoast Research Society; Pacific Coast Wild Salmon Society ("AQUA")
Tim Leadem, Q.C.	Conservation Coalition: Coastal Alliance for Aquaculture Reform Fraser Riverkeeper Society; Georgia Strait Alliance; Raincoast Conservation Foundation; Watershed Watch Salmon Society; Mr. Otto Langer; David Suzuki Foundation ("CONSERV")
Lyndsay Smith	Area D Salmon Gillnet Association; Area B Harvest Committee (Seine) ("GILLFSC")

**APPEARANCES / COMPARUTIONS, cont'd.**

No appearance	Southern Area E Gillnetters Assn. B.C. Fisheries Survival Coalition ("SGAHC")
Christopher Harvey, Q.C.	West Coast Trollers Area G Association; United Fishermen and Allied Workers' Union ("TWCTUFA")
Keith Lowes	B.C. Wildlife Federation; B.C. Federation of Drift Fishers ("WFFDF")
No appearance	Maa-nulth Treaty Society; Tsawwassen First Nation; Musqueam First Nation ("MTM")
No appearance	Western Central Coast Salish First Nations: Cowichan Tribes and Chemainus First Nation Hwlitsum First Nation and Penelakut Tribe Te'mexw Treaty Association ("WCCSFN")
Brenda Gaertner Leah Pence	First Nations Coalition: First Nations Fisheries Council; Aboriginal Caucus of the Fraser River; Aboriginal Fisheries Secretariat; Fraser Valley Aboriginal Fisheries Society; Northern Shuswap Tribal Council; Chehalis Indian Band; Secwepemc Fisheries Commission of the Shuswap Nation Tribal Council; Upper Fraser Fisheries Conservation Alliance; Other Douglas Treaty First Nations who applied together (the Snuneymuxw, Tsartlip and Tsawout); Adams Lake Indian Band; Carrier Sekani Tribal Council; Council of Haida Nation ("FNC")
No appearance	Métis Nation British Columbia ("MNBC")

**APPEARANCES / COMPARUTIONS, cont'd.**

No appearance	Sto:lo Tribal Council Cheam Indian Band ("STCCIB")
No appearance	Laich-kwil-tach Treaty Society Chief Harold Sewid Aboriginal Aquaculture Association ("LJHAH")
No appearance	Heiltsuk Tribal Council ("HTC")
No appearance	Musgamagw Tsawataineuk Tribal Council ("MTTC")

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1  
Laura Richards  
In chief by Mr. Wallace

1 Vancouver, B.C. /Vancouver  
2 (C.-B.)  
3 March 17, 2011/le 17 mars 2011  
4

5 THE REGISTRAR: The hearing is now resumed.

6 MR. WALLACE: Good morning, Mr. Commissioner. For the  
7 record, Brian Wallace, Commission counsel, and  
8 with me is Lara Tessaro and Micah Carmody.

9 This morning, Mr. Commissioner, we are here  
10 to hear from Dr. Laura Richards, who is the  
11 Regional Director of Science for DFO. This arises  
12 as a result of a ruling you made in November that  
13 we should give participants an opportunity to  
14 question Dr. Richards with respect to process  
15 issues relating to science and the management at  
16 DFO and, in particular, with respect to a science  
17 workshop that occurred in September 2009, and  
18 subsequent advice that came from that.

19 I would emphasize this is not intended to get  
20 into the substance of that advice. Those issues  
21 go directly to the scientific questions that are  
22 before you, and they have been and will continue  
23 to be dealt with in the substantive hearings on  
24 each of those issues.

25 We are very tight for time. As always, I've  
26 advised participants that this matter will be  
27 dealt with today, and my proposal to them, and  
28 this, of course, is subject to your ultimate  
29 determination. My proposal to them is that I have  
30 pinched their time unrealistically and tried very  
31 hard to -- and they've all agreed to try and deal  
32 with it in that sort of timeframe, and they  
33 understand, I think, that in the event that we  
34 can't finish, my proposal will be that anything  
35 that remains will have to be done by writing.

36 With that in mind, I hope to complete my  
37 examination by the morning break. Canada will  
38 then have 45 minutes before I ask them to  
39 complete, followed by the Aquaculture Coalition,  
40 who has asked for 90 minutes and to whom I have  
41 said, "Please take 60," and Mr. McDade will be  
42 followed by Mr. Prowse, for the Province, for whom  
43 I have proposed 20 minutes, followed by the  
44 Conservation Coalition at 30 minutes.

45 Those are all of the time estimates that we  
46 received ahead of time. We have since had  
47 indications and late notifications from the First

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1 Nations Coalition, the B.C. Salmon Farmers  
2 Association, and Areas D and B that they may have  
3 some questions and we'll just have to see how the  
4 day plays out for that, but it's going to be very  
5 difficult.

6 With that in mind, perhaps we could start.  
7 THE REGISTRAR: Dr. Richards, I remind you, you're  
8 still under oath.

9 MR. WALLACE: Thank you.

10

11

LAURA RICHARDS, recalled.

12

13

EXAMINATION IN CHIEF BY MR. WALLACE:

14

15

Q Dr. Richards, if I may just go to your *curriculum*  
16 *vitae* quickly, you have a zoology PhD. From UBC  
17 from 1982?

18

A Yes, that's correct.

19

Q And you were appointed Acting Regional Director of  
20 Science in the Pacific Region in 1998, and  
21 Regional Director in 2002, correct?

22

A Yes, that's correct.

23

Q And you've held that position since?

24

A That's correct.

25

MR. WALLACE: Thank you. Mr. Giles, could this be  
26 marked, please, as the next exhibit, the  
27 *curriculum vitae* of Laura Jean Richards?

28

THE REGISTRAR: It will be Exhibit 610.

29

30

EXHIBIT 610: *Curriculum Vitae* of Dr. Laura  
31 Jean Richards

32

33

MR. WALLACE: Thank you.

34

Q Dr. Richards, you have had an opportunity to  
35 review and amend a Summary of Anticipated  
36 Evidence; do you have that?

37

A Yes, I have that in front of me.

38

Q Now, you have reviewed that, and will you adopt  
39 that as correct?

40

A I think there are a few places where we may need  
41 to go for some clarifications that I have just, in  
42 particular, discussed with your counsel.

43

Q All right. I will ask questions about this. Why  
44 don't we just deal with those. The first one is  
45 at R --

46

MR. TAYLOR: Well, I'd like to clarify the process for  
47 these statements. These are something that is

1 prepared by Commission counsel, they're then given  
2 to me to give to the witness, the witness  
3 comments, and Commission counsel accepts some  
4 comments and not other comments. This is not the  
5 evidence of this witness, by any means. The  
6 kernel of it is there, but Mr. Wallace hasn't  
7 pursued his first question, was, "Do you adopt it  
8 as correct?" It's not something that this witness  
9 has written and it's not something, as she said,  
10 that she can agree to holus-bolus. I don't think  
11 it's useful to go through, line by line, and have  
12 her identify where there's changes. It seems to  
13 me that the witness is here to answer questions  
14 that Mr. Wallace asks and not simply adopt  
15 something he's written.

16 MR. WALLACE: Mr. Commissioner, there have been varying  
17 practices here. The purpose of this, in my  
18 submission, is to make this go as efficiently as  
19 possible. I accept that this document isn't the  
20 entirety of Dr. Richards' evidence; indeed, a  
21 large part of the summary talks about issues on  
22 which she will be asked questions. But some of it  
23 is, I think, uncontentious and it's evidence which  
24 we would like you to be able to rely on, so I'm  
25 not asking if it's complete; I'm asking if it's  
26 correct. And I intend to ask questions on large  
27 parts of it, but it's simply whether or not this  
28 can be -- what's in here can stand as correct.

29 So I will ask the witness to adopt this with  
30 whatever clarifications she thinks is necessary  
31 and have it marked as an exhibit. Thank you.

32 Q Dr. Richards, I think you have a clarification you  
33 wish to make at paragraph R?

34 A Yes. I did want to just clarify, first of all, my  
35 area of expertise, and what I'd like to say is,  
36 you know, basically my background has been in data  
37 analysis, quantitative analysis of fisheries data  
38 and stock assessment data, and in that context I'm  
39 quite good at data analysis, but I'm not very good  
40 at disease, and for issues related to disease I do  
41 rely very heavily on my staff and on their advice.

42 And in this particular context, too, it says:

43  
44 ...with particular expertise in preparing  
45 briefs,  
46

47 The wording of this is just a little bit

4  
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1           unfortunate, and so I think it's more correct to  
2           say I do rely heavily on input from my scientists  
3           and that they -- and I rely on their advice when I  
4           am preparing briefs and --  
5        Q     Yes. So is it fair to say that you rely on your  
6           scientists for advice on disease and fish health  
7           issues and your strength is in the data analysis?  
8        A     That's correct.  
9        Q     Thank you. Is there any other portion of this  
10           you'd like to clarify?  
11       A     I think we did.  
12       Q     At paragraph ff, I think.  
13       A     Thank you. Yeah, paragraph ff there is a typo  
14           there in that last line.  
15       Q     Yes. So it should be February 17th?  
16       A     It should be February 17th.  
17       Q     Thank you. With those two clarifications, can you  
18           adopt this as correct, that --  
19       A     Yes.  
20       MR. WALLACE: Thank you. Mr. Commissioner, I'd like to  
21           have this, then, marked as the next exhibit, the  
22           Summary of Anticipated Evidence of Dr. Richards.  
23       THE REGISTRAR: Exhibit Number 611.  
24  
25                   EXHIBIT 611: Summary of Anticipated Evidence  
26                   of Dr. Richards  
27  
28       MR. WALLACE:  
29       Q     Dr. Richards, in September of 2009, am I correct  
30           that you, along with Mark Saunders, convened a  
31           science workshop as a result of the low sockeye  
32           return of that year?  
33       A     Yeah, that's correct. Obviously, there was an  
34           intense amount of scientific interest in what had  
35           happened in 2009, and we wanted to bring staff  
36           together to really exchange views and begin to try  
37           to understand what might have happened. And as  
38           part of our process of just trying to work with  
39           staff and given the intense interest, we realized  
40           we needed to have a relatively large meeting to  
41           make sure we had different points of view on the  
42           table, and so yes, that was the process that we  
43           undertook.  
44       Q     Thank you. And in the book in front of you there  
45           are a number of tabs which, for the record, are  
46           the same as the numbering of the exhibit list that  
47           we provided to participants, and at Tab 1, Dr.

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5  
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In chief by Mr. Wallace

1 Richards, you'll see, first of all, an e-mail  
2 invitation; secondly, an agenda; and thirdly, a  
3 table that sets out a summary of hypothesis  
4 relating to the 2009 Fraser sockeye. Are those  
5 the invitation, agenda and summary prepared for  
6 that meeting?

7 A Yes. I think the summary, I'm not sure it was  
8 prepared in advance. I can't recall precisely the  
9 timing here, but part of what happened at that  
10 meeting was to go through and to try to look and  
11 try to get evidence from the scientists on their  
12 views on some of these different hypotheses and  
13 try to flesh that out.

14 Q Thank you. So these were all prepared in  
15 conjunction with that meeting?

16 A Yes, that's correct.

17 MR. WALLACE: Thank you. Mr. Commissioner, could this  
18 be marked as the next exhibit, please? And this  
19 will be the invitation, the agenda, and summary of  
20 hypothesis from the 2009 DFO workshop.

21 THE REGISTRAR: That will be marked as Exhibit 612.

22  
23 EXHIBIT 612: E-mail invitation for Science  
24 meeting September 30, 2009; Agenda; and table  
25 setting out a summary of hypothesis relating  
26 to the 2009 Fraser sockeye  
27

28 MR. WALLACE: Thank you.

29 Q And the next exhibit I would take you to is number  
30 2, which is at Tab 2 in your binder, Dr. Richards,  
31 and this is a bundle, I'll call it, of material  
32 relating to various hypotheses. Have you had an  
33 opportunity to review that material?

34 A I have verified that those were, in fact,  
35 presentations which were prepared for that  
36 meeting. I did not, personally, attend most of  
37 the meeting, I was there for the later part of  
38 that meeting, so I cannot personally verify that  
39 these were fully presented, but they were the  
40 information that was prepared for that meeting.

41 MR. WALLACE: Thank you. May that material then  
42 prepared for the science workshop in September  
43 2009 be marked as the next exhibit, please?

44 THE REGISTRAR: 613.

45  
46 EXHIBIT 613: Package of documents prepared  
47 for DFO science workshop in September 2009

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6  
Laura Richards  
In chief by Mr. Wallace

1  
2 MR. WALLACE:  
3 Q I wonder if I might, Dr. Richards, now just take  
4 you to Tab D of 2?  
5 MR. LUNN: Sorry to interrupt, just a clarification on  
6 Tab 2. There are documents A through H.  
7 MR. WALLACE: Thank you.  
8 MR. LUNN: Do you want those marked separately, or as  
9 the same one?  
10 MR. WALLACE: All as one exhibit.  
11 MR. LUNN: Thank you.  
12 MR. WALLACE: Thank you. You can mark them A through  
13 H, if you like, but all with the same number.  
14 MR. LUNN: Right.  
15 MR. WALLACE: Thanks.  
16 Q Dr. Richards, if I could take you to Tab 3 of 2,  
17 and this is, on the second and third page of that  
18 document --  
19 A Mm-hmm.  
20 Q -- again, this is the summary of hypotheses, and  
21 then at page 2 and 3 there are items marked  
22 Identified Issues and Things That Might Be Worth  
23 Looking Into, and I wonder if looking at Things  
24 That Might Be Worth Looking Into, whether or not  
25 subsequent to the meeting, science staff have been  
26 assigned to look into those six issues?  
27 A Staff have been continuing -- obviously staff have  
28 been extremely interested in this question of what  
29 happened, because it is a very interesting  
30 question from a scientific perspective, and so  
31 staff have been trying to do some follow-up on  
32 these areas as well as some other areas, so not  
33 just these areas.  
34 I'd say in terms of follow-up, there was much  
35 more follow-up on some of the other hypotheses.  
36 These were some additional pieces of information  
37 where we thought we might be able to have some  
38 extra added value. But some of these are  
39 probably, not all these, sort of the main areas in  
40 which further investigations would be ongoing.  
41 Q So these were thought to be of lesser interest?  
42 A Well, I mean, some of them are -- there's very  
43 different ones. You've got a bit of a mix here.  
44 I think the first three topics are, you know,  
45 fairly small questions; the last three are fairly  
46 major questions.  
47 Q Thank you. The next document, Dr. Richards, I

March 17, 2011



1 would take you to is entitled, Update on Science  
2 Review 2009, Fraser Sockeye, which is at Tab 3.  
3 Am I correct that that document was produced as a  
4 result of the workshop?

5 A Yes. The workshop was sort of a starting point,  
6 and then following from that workshop we did  
7 attempt to make some summaries of the current  
8 situation. You know, this was really a bit of a  
9 work in progress. There were different versions  
10 of this document that were prepared and updated as  
11 we went along and tried to get more information.  
12 And so, you know, very much of what you're seeing  
13 here is a bit of an evolution of scientific  
14 thinking on this whole topic and that scientific  
15 thinking was evolving and has continued to evolve  
16 as we get more information on various pieces.

17 Q And how was this update used subsequent to the  
18 meeting?

19 A Well, as you know, one of the things that we did  
20 was, and we used this to prepare a briefing note  
21 that we sent off, eventually, to the Minister, but  
22 in addition to that, it was also used to brief  
23 staff so that the scientific staff themselves who  
24 are working in one specific area would have some  
25 sense of the broader understanding and the broader  
26 scope of the issue so that they could also be  
27 informed and think about work of their colleagues  
28 as they were doing and moving forward on their  
29 hypotheses. So to try to be as integrated as  
30 possible.

31 You know, generally in these kinds of  
32 situations, as I know you understand, there isn't  
33 simple answers. None of this stuff is simple, and  
34 we know that things are connected and linked and,  
35 therefore, we need to have large teams that are  
36 starting to investigate some of these questions,  
37 and in order to do that efficiently and  
38 effectively it's very important that staff are  
39 knowledgeable about other areas of research and  
40 what others are doing and so that they can use  
41 that information as they move forward and think  
42 about their own area of specialization.

43 Q Thank you. Just for the record, I note, in Tab 3,  
44 there is what appears to be a covering e-mail to  
45 this document, dated Thursday, November 12th, to  
46 you from Mark Saunders. Can you just confirm that  
47 that is the case?

8  
Laura Richards  
In chief by Mr. Wallace

1 A Yes.

2 MR. WALLACE: Mr. Commissioner, if I may mark the  
3 covering e-mail and the attached update as the  
4 next exhibit, please?

5 THE REGISTRAR: Exhibit Number 614.

6

7 EXHIBIT 614: Update on Science Review 2009,  
8 Fraser Sockeye, and attached e-mail dated  
9 November 12, 2009, to Laura Richards from  
10 Mark Saunders  
11

12

12 MR. WALLACE:

13 Q You mentioned, Dr. Richards, the briefing notes,  
14 and I just will ask you a series of questions  
15 about --

16 A Okay.

17 Q -- those briefing notes and their genesis and what  
18 finally happened to them. And the first step in  
19 that process are the -- take you to the documents  
20 at Tab 4, and this is an e-mail, it appears to be,  
21 from you, dated October the 6th, to Mark Saunders,  
22 Subject: Draft BN. "BN" is "briefing note",  
23 correct?

24 A Yes.

25 Q And then attached to that is a document entitled,  
26 Briefing Note For the Minister, Factors Affecting  
27 the 2009 Fraser Sockeye Returns. Am I correct  
28 that this is an early draft of the briefing note  
29 that you referred to a moment ago?

30 A Yes. I think this is an early draft. The note  
31 was really drafted by Mark Saunders, and I think  
32 this is his first attempt to pull that together  
33 for an initial discussion between the two of us.

34 Q Thank you. Am I correct that ultimately there  
35 were, I think, three briefing notes prepared?

36 A Yes, that's correct.

37 MR. WALLACE: May I have that early draft briefing note  
38 and the covering e-mail marked as the next exhibit  
39 please?

40 MR. TAYLOR: I don't have an objection to that, but I  
41 have a clarification.

42 MR. WALLACE: Yes?

43 MR. TAYLOR: The very last page of that tab appears to  
44 be something different from the early draft  
45 briefing note. I am suspecting that there's a  
46 photocopying error, but I wonder if Mr. -- and  
47 that photocopying error, if that be the case,

9  
Laura Richards  
In chief by Mr. Wallace

1           might have happened before it got to the  
2           commission or after, I don't know. It's a page  
3           that starts with speaking points --

4       MR. WALLACE: Yes.

5       MR. TAYLOR: -- which appears to have nothing to do  
6           with the briefing note.

7       A       Perhaps I could clarify? We have a normal  
8           template for preparing briefing notes that Mr.  
9           Saunders would have used, and that normal template  
10          -- and this bit is just part of that normal  
11          template. It's not relevant for this particular  
12          case, but since this was a very, very early draft,  
13          and he was just working from the template, that  
14          was not removed when he did this work.

15       MR. WALLACE: Thank you. Sorry, if that could be  
16          marked as the next exhibit, Mr. Giles, thanks?

17       THE REGISTRAR: 615.

18  
19                   EXHIBIT 615: Briefing Note For the Minister,  
20                   Factors Affecting the 2009 Fraser Sockeye  
21                   Return, and covering e-mail dated October 6,  
22                   2009, from Laura Richards to Mark Saunders,  
23                   Subject: Draft BN, and transmittal sheet  
24

25       MR. WALLACE: And the next tab, Dr. Richards, I'm going  
26          to take you to what I believe to be the final  
27          version of this and the other briefing notes, and  
28          if I could ask you to look at Tab 5 of your book,  
29          and this is a series of documents. The first one  
30          is dated March 02 of 2010, headed, Memorandum for  
31          the Minister, Potential Causes of Poor Returns of  
32          Fraser River Sockeye Salmon: With Focus on Sea  
33          Lice Impacts. And then behind that is a similar  
34          document, but dated December 3 of 2009, headed,  
35          Factors Affecting the 2009 Fraser Sockeye Return,  
36          and the third document, dated December 11th, 2009,  
37          also describes a Memorandum for the Minister,  
38          headed, Potential Causes of Poor Returns of Fraser  
39          River Sockeye Salmon: With Focus on Disease-  
40          Related Factors.

41       Q       Now, am I correct that you've looked into this and  
42           you've determined that these are the forms of the  
43           three memoranda that you've spoke of that finally  
44           went to the Minister's office?

45       A       Yes, that's correct.

46       MR. WALLACE: Thank you. Mr. Giles, could these three  
47          documents, together, be marked as the next

10  
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1 exhibit?  
2 THE REGISTRAR: Exhibit Number 616.  
3 MR. WALLACE: Thank you.  
4 Q Now, going to the second of those two documents  
5 within that exhibit, we have the document headed,  
6 Factors Affecting the 2009 Fraser Sockeye Return,  
7 dated December the 3rd, and am I correct that that  
8 is the final version of the document that we saw  
9 in its preliminary version at the previous  
10 exhibit?  
11 A Yes, that's correct.  
12 MR. McDADE: Sorry, Mr. Commissioner, just on a  
13 housekeeping matter, I wonder, it seems to me to  
14 make a lot more sense that these three memos,  
15 which were prepared at different times and in  
16 different ways, be marked separately as exhibits.  
17 THE REGISTRAR: Would you provide your name, please?  
18 MR. McDADE: Greg McDade, for Dr. Morton.  
19 MR. WALLACE: Thank you. Mr. Commissioner, these three  
20 documents were all found as one group in -- and  
21 perhaps Dr. Richards can explain the system of  
22 tracking documents?  
23 THE COMMISSIONER: I think to accommodate Mr. McDade,  
24 why don't they just get marked 616A, B and C?  
25 MR. WALLACE: That is satisfactory to me. I think we  
26 should leave them in the order they were found,  
27 even though that is neither chronological or  
28 topical, but it's the way they were found. So the  
29 Exhibit A will be the March 02 of 2010; B will be  
30 the document of December 3, 2009; and C will be  
31 the document of December 11, 2009.  
32 MR. TAYLOR: What these are, Mr. Commissioner, and I  
33 believe this is uncontentious, between Mr. Wallace  
34 and I, at least, is the first of those documents  
35 you can see is the latest in time, and the latest  
36 in time attached the two earlier briefing notes.  
37 Each briefing note is in a file, separate one from  
38 the other, but this latest briefing note had  
39 attached to it the earlier briefing notes for  
40 reference, and that's why it's in a package. But  
41 they really are independent documents, of course,  
42 and they now are independent exhibits, as A, B, C,  
43 within 616.  
44 THE COMMISSIONER: Thank you, Mr. Taylor.  
45 THE REGISTRAR: Mr. Wallace, I think best to maintain  
46 the sequence of the exhibits, we need to identify  
47 616 and then 616A and then 616B, otherwise we have

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1 a 616 that seems to have vanished.

2 MR. WALLACE: Whatever.

3 THE REGISTRAR: Okay. So the ones you cited, the March  
4 2nd document will be 616, which you had previously  
5 said 616A, so that is 616; B, the December 3rd  
6 document, will be 616A; and the C document  
7 previously, will be 616B.

8

9 EXHIBIT 616: Memorandum for the Minister,  
10 Potential Causes of Poor Returns of Fraser  
11 River Sockeye Salmon: With Focus on Sea Lice  
12 Impacts, dated March 2, 2010

13

14 EXHIBIT 616A: Factors Affecting the 2009  
15 Fraser Sockeye Return, dated December 3, 2009

16

17 EXHIBIT 616B: Memorandum for the Minister,  
18 Potential Causes of Poor Returns of Fraser  
19 River Sockeye Salmon: With Focus on Disease-  
20 Related Factors, dated December 11, 2009

21

22 MR. WALLACE: And while we're making things clean, why  
23 don't we also identify 616 as the document with  
24 the focus on sea lice impacts; A as the document  
25 which is simply factors affecting Fraser River  
26 sockeye returns; and B being the document with a  
27 focus on disease-related factors.

28 Q So with that, Dr. Richards, if we could look at  
29 616A, which is the second document at the tab, I'd  
30 like to just briefly ask you to compare it to the  
31 original draft, the early draft of the same  
32 document, which is Exhibit 615.

33 Now, in your summary of evidence, you  
34 indicated that the final version reflects a shift  
35 in the focus of the potential causes memorandum to  
36 the 2009 return as opposed to the possible causes  
37 for a long-term decline --

38 A Mm-hmm.

39 Q -- for Fraser sockeye. Can you explain why that  
40 change in focus occurred?

41 A Well, to be honest, I'm having trouble remembering  
42 precisely all the details around this, but as I  
43 recollect, I think we wanted to keep the focus  
44 strictly on 2009, because we thought that was the  
45 area of most intense interest at this particular  
46 time. While these other factors were not -- it's  
47 not that they weren't important, but when you're

1 writing briefing notes you need to be sort of  
2 concise and short, and we wanted to try to make it  
3 as simple and straightforward as possible, and  
4 that's why the focus was just on 2009.  
5 Q So was that a conclusion, that it wouldn't be  
6 useful to the Minister --  
7 A No, no, I don't --  
8 Q -- have a sense of the (indiscernible -  
9 overlapping speakers) --  
10 A -- mean to imply at all that it wouldn't be useful  
11 or it's not important information, but, you know,  
12 realistically, these briefing notes need to be  
13 very short and you need to make some decisions  
14 about what is the most important piece, and at  
15 that time obviously the most -- the thing that was  
16 of most intense interest was what happened in  
17 2009, so that's what we were trying to address.  
18 Q Dr. Richards, am I correct that these three  
19 memoranda were prepared at the initiative of  
20 Regional Science and not at the request of the  
21 Minister?  
22 A No, these were really prepared on my initiative.  
23 Q And you have confirmed before, but just to  
24 reiterate, and you have determined by looking at  
25 Exhibit 616, A, and B, that these were received by  
26 the Minister's office?  
27 A Yes, to the best of my -- yes.  
28 Q Again, looking at 616A, I wonder if I could just  
29 -- this being the factors memorandum of December  
30 3rd, 2009, at page 2, I want to just very briefly,  
31 if you could just confirm the genesis of the 10  
32 factors that were set out on page 2 and how you  
33 came to this ordering?  
34 A Well, these factors were -- really came from  
35 discussions with staff after more discussion at  
36 that meeting that we just discussed in September,  
37 where we did try to come to some initial thinking  
38 on what was important there or what was less  
39 important. And so this was really based on  
40 thinking of my staff at the time and we came to  
41 order them in this sort of way to try to make the  
42 story as clear as we could based on the  
43 information we had at that time.  
44 Q And at that time you determined that pollution in  
45 the Fraser captured by Canadian fisheries,  
46 predation on juvenile salmon in the Strait of  
47 Georgia, and low food abundance in the Strait of

1 Georgia, were all unlikely to have contributed to  
2 the 2009 poor return?

3 A That's correct. That's what we had, at that time.  
4 Now, if you allow me to go on, I can say that some  
5 of our ideas obviously have evolved on these  
6 particular topics, and I'm sure you'll hear more  
7 about that later. That does demonstrate that  
8 science and thinking on these topics does evolve.  
9 But this is where we were at this point in time.

10 Q And that's the point of this discussion, so it's  
11 where you were at the time and what was  
12 communicated about that.

13 The next bullet talks about factors that may  
14 have contributed to sockeye mortality but not at a  
15 magnitude sufficient to explain the poor return in  
16 2009, and there you have, in that middle category,  
17 predation by Humboldt squid, capture by U.S.  
18 fisheries, and mortality attributed to sea lice  
19 from fish farms in Discovery Passage, correct?

20 A Yes.

21 Q Can you help me with the line between that bullet  
22 and the unlikely on the one side and the third  
23 bullet, which is factors that could possibly have  
24 led to the sockeye mortality at the scale  
25 observed; how are those lines drawn, briefly?

26 A Well, as I said, this was based on some early  
27 thinking around this, but, I mean, these were  
28 areas where we thought, yes, it was likely that  
29 there could have been some predation. Certainly  
30 we had heard reports of things, like Humboldt  
31 squid, so it's possible that we were thinking that  
32 we -- it was very likely that there was some  
33 mortality of sockeye because of those factors, if  
34 the juvenile sockeye had gone out the Juan de Fuca  
35 route and come up the west coast of Vancouver  
36 Island, they would have encountered Humboldt  
37 squid, so that we know that Humboldt squid could  
38 have eaten sockeye. We don't have great data on  
39 that, but we had some evidence.

40 So it was our thinking that those were things  
41 that we just could not really rule out as  
42 possibilities, because there was some -- we did  
43 think that, yes, they could have led to some  
44 mortality, but we didn't, at that time, think that  
45 it could have been sufficiently large mortality to  
46 lead to the mortality -- the actual scale that was  
47 observed.

14  
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1 Q And just to round this out, the three issues that  
2 the scientists concluded could possibly have led  
3 to the sockeye mortality in the scale observed are  
4 the toxic algal blooms in Georgia Strait, low food  
5 abundance in Queen Charlotte Sound, and viral  
6 disease, correct?

7 A That's correct.

8 Q If I may take you to Tab 6, to the next document,  
9 here we have an e-mail cover from Mark Saunders.  
10 You do not appear to be on this, but perhaps you  
11 have been able to confirm that this refers to the  
12 document attached, which is headed Brain Lesions  
13 Found in Southern B.C. Salmon Stocks. You're  
14 familiar with that document?

15 A Yes, I am.

16 Q You were involved in its --

17 A Yes.

18 Q -- preparation? Sorry, you were involved in the  
19 preparation of that document?

20 A Yes, I was.

21 MR. WALLACE: Thank you. Mr. Giles, could we mark  
22 this, please, as the next exhibit, a document  
23 entitled, Brain Lesions Found in Southern B.C.  
24 Salmon Stocks.

25 THE REGISTRAR: This will be marked as Exhibit 617.

26 MR. WALLACE: Sorry, with the covering e-mail of  
27 December 9th, 2009.

28  
29 EXHIBIT 617: Memorandum for the Minister,  
30 Brain Lesions Found in Southern BC Salmon  
31 Stocks, and attached e-mail dated December 9,  
32 2009, from Mark Saunders to Brent Hargreaves  
33 and Arlene Tomkins, and transmittal sheet  
34

35 MR. WALLACE:

36 Q Now, in the development of this document, it  
37 appears that the Deputy Minister's office sought  
38 clarification from the Region in the finalization  
39 of this document. Can you tell us what that  
40 clarification was? There also seems to be some  
41 question as to whether it was the Deputy  
42 Minister's office or the Assistant Deputy  
43 Minister's office, but perhaps you can clarify?

44 A Yeah, the ADMO would refer to the office of the  
45 Assistant Deputy Minister, in this case, the  
46 Assistant Deputy Minister of Science.

47 Q Okay. So that's the reference to "revised final

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1 per ADMO" on the covering memo of this exhibit?  
2 Doctor, that's --

3 A Yes.

4 Q -- the reference to ADMO?

5 A Yes.

6 Q I'm not sure that this is significant, but at the  
7 bottom of the e-mail there's reference to:

8  
9 Judy received clarification from the [Deputy  
10 Minister's] office. Laura has approved these  
11 changes.  
12

13 Is that just a typo, or was the Deputy Minister  
14 involved as well?

15 A No, I think this would have been from -- that's  
16 probably a typo. Or it may have just been a lack  
17 of clarity of the understanding of the admin staff  
18 who were working on this.

19 Q Can you identify in this exhibit what the changes  
20 were that were made at the request of the  
21 Assistant Deputy Minister of Science?

22 A Well, since I don't have the original, this wasn't  
23 -- my e-mail correspondence and I wasn't on this  
24 e-mail, I can't verify precisely, but if I look at  
25 this it seems to be related to the first bullet,  
26 which would have been -- and the intent of that  
27 first bullet really would have been to provide the  
28 context and then the linking with the other note  
29 that we just discussed. So my recollection, here,  
30 was really trying to improve the overall context  
31 in preparation of this note.

32 Q When you compare this exhibit with Exhibit 616B,  
33 which is the last document at Tab 5 in your book,  
34 there's a change in the title.

35 A Mm-hmm.

36 Q Can you explain how this changed from "Brain  
37 Lesions Found in Southern BC Salmon Stocks" to the  
38 final title, which is, "Potential Causes of Poor  
39 Returns With a Focus on Disease-Related Factors"?

40 A I can't recall, explicitly, but to the best of my  
41 recollection, my understanding here is, again, it  
42 has to do with context in linking it and improving  
43 the clarity because, really, the note was more  
44 than about the brain lesions piece of it; it was  
45 really trying to provide the broader context on  
46 at least one piece of the disease issue.

47 So again, it was really trying to link and

16  
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- 1 demonstrate sort of the flow in what we were  
2 doing.
- 3 Q Do you recall if that was a change that was  
4 proposed by the Assistant Deputy Minister's  
5 office?
- 6 A I don't recall exactly where that proposal came  
7 from, but, you know, I guess I did agree that it  
8 made sense to -- in my view, that was a helpful  
9 change, because it did provide extra clarity in  
10 linking with the previous note and showing the  
11 flow of these ideas, because clearly there was a  
12 link between these concepts.
- 13 Q If I may take you, then, to the next tab, Dr.  
14 Richards, which is Tab 7 of your book, which has  
15 an e-mail of December 23rd, 2009, which is from  
16 Arlene Tomkins, addressed to you, attaching the  
17 briefing note, and again, this one is entitled,  
18 Potential Causes of Poor Returns of Fraser River  
19 Sockeye Salmon: With Focus on Sea Lice Impacts,  
20 can you confirm that this was an early draft of  
21 the first document at Tab 5, which is now marked  
22 Exhibit 616?
- 23 A Yes, that's correct.
- 24 MR. WALLACE: May we mark this as the next exhibit,  
25 please?
- 26 THE REGISTRAR: Yes, it will be marked 618. Is that to  
27 include the attached e-mail?
- 28 MR. WALLACE: Yes.
- 29 THE REGISTRAR: Thank you.
- 30
- 31 EXHIBIT 618: Potential Causes of Poor  
32 Returns of Fraser River Sockeye Salmon: With  
33 Focus on Sea Lice Impacts, with attached  
34 e-mail from Arlene Tomkins to Laura Richards,  
35 dated December 23, 2009, and transmittal  
36 sheet
- 37
- 38 MR. WALLACE:
- 39 Q And the sea lice memorandum at Exhibit 618, at  
40 Tab 7, was approved by you, as Regional Director  
41 of Science?
- 42 A I'm not sure that that is the final version.  
43 You've got so many different versions here.
- 44 Q Indeed, I think it's not the final version.
- 45 A So it may not have been a version that I approved.  
46 I'm sorry, I can't...
- 47 Q If you go to the last page, the one I have doesn't

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1           have your -- of Exhibit 618, Tab 7, there is a  
2           transmittal slip there, but it hasn't been signed,  
3           in my version.  
4        A     No.  And they would have been -- this would have  
5           been a standard template, again, that was used, so  
6           that doesn't necessarily mean that that's a  
7           version that I would have approved.  
8        Q     Thank you.  
9        THE COMMISSIONER:  Mr. Wallace, I apologize for  
10           interrupting just for two points.  I just want you  
11           to keep your eye on the clock, because you're  
12           going to be finished by the break.  The other  
13           matter is that you just answered Mr. Registrar  
14           that you wanted the e-mail as part of the  
15           attachment to this exhibit, but as you just said,  
16           there's a transmittal slip as well, in the tab I  
17           have, and whether you wanted to mark the  
18           transmittal slip as well?  
19        MR. WALLACE:  Mr. Commissioner, I was including the  
20           transmittal slip as part of the document, itself,  
21           because they all have them, and the e-mail is just  
22           a way in which it was conveyed and is often the  
23           only way you can --  
24        THE COMMISSIONER:  I just wanted to make sure for the  
25           record, that everything that's in the tab as  
26           described.  
27        MR. WALLACE:  Thank you.  For the record, then, I'll  
28           just confirm that each of the memoranda has a  
29           transmittal slip attached to it.  
30                    Am I correct, we just marked the draft, the  
31           initial draft, of the -- not necessarily the  
32           initial, but the draft of the sea lice memorandum  
33           and the attached --  
34        THE REGISTRAR:  We marked the full document --  
35        MR. WALLACE:  Thank you.  
36        THE REGISTRAR:  -- as 618, including the attachment and  
37           the transmittal.  
38        MR. WALLACE:  Thank you.  
39        Q     If I may ask you, Dr. Richards, the next document  
40           I direct you to is a subsequent version of the  
41           same document, and that's at Tab 8 of your book.  
42           Can you confirm that -- and this one, from the  
43           transmittal slip, appears to have been approved by  
44           you, as Regional Director of Science, and also by  
45           Sue Farlinger, as Regional Director, FAM, and by  
46           Paul Sprout, Regional Director General, correct?  
47        A     I think just for clarity, Sue Farlinger, herself,

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1 did not approve this. Those initials there are  
2 "BA". That would have been Bonnie Antcliffe, who  
3 was acting in that position at that time.

4 Q Thank you.

5 A And I can also see it says, at the top, just for  
6 clarity, it looks like I've got some other  
7 initials other than Paul Sprout's there, so  
8 somebody -- because this is happening right over  
9 the Christmas break, there are probably a number  
10 of people that were taking needed leave at that  
11 time, so there would have been some others who  
12 would have signed on their behalf.

13 Q Thank you for that clarification. So this  
14 document would have been a subsequent version of  
15 the document we marked previously?

16 A Yes, that's correct.

17 Q Just comparing those two, if I could take you to  
18 page 2 of Tab 7, the previous document, in that  
19 version it says:

20  
21 The impact of sea lice from commercial fish  
22 farms has been identified by various groups  
23 as possibly a major contributing factor to  
24 the low return of Fraser sockeye in 2009.

25  
26 And if you compare that to the version at Tab 8,  
27 at the same place, it says:

28  
29 Various groups including environmental  
30 organizations have speculated that sea lice  
31 from commercial fish farms are a major  
32 contributing factor to the low returns of  
33 Fraser sockeye in 2009.

34  
35 MR. TAYLOR: Mr. Wallace, you're ahead of at least Mr.  
36 Lunn and I. Where are you?

37 THE COMMISSIONER: I think he's in Tab 8.

38 MR. WALLACE: Yes, I was comparing Tab 7, which has  
39 been marked as an exhibit, with Tab 8, which has  
40 not yet been marked, being the two successive  
41 versions of this memo. Are we all on the same  
42 page?

43 MR. TAYLOR: Yes, thank you, I see, now.

44 MR. WALLACE: Thank you.

45 Q Dr. Richards, you see the difference in wording?  
46 I'm wondering if you --

47 A I'm sorry, I'm having trouble finding exactly --

1 Q Okay.  
2 A -- which bullets are you referring to?  
3 Q The third bullet on the left-hand side of the  
4 screen -- the third bullet on both sides of the  
5 screen. Do you recall the genesis of that change?  
6 A No, I'm sorry, I don't recall that, specifically.  
7 Q Was the change from --  
8 A I guess in my reading of it I don't really see  
9 that they're that different.  
10 Q Okay. You don't read any qualitative difference  
11 between "identifying" and "speculating"?  
12 A Well, it says "identified as a possible," and the  
13 other -- so "speculate" versus "identified" -- I'm  
14 not reading a large --  
15 Q All right.  
16 A I guess, in my mind, I'm not reading a large  
17 difference between those two, but I cannot recall  
18 precisely the discussion around that.  
19 MR. WALLACE: Okay. Thank you. Then, if I may, this  
20 is a document which does not have an e-mail with  
21 it, be marked as the next exhibit, please, Mr.  
22 Giles, along with its transmittal stub?  
23 THE REGISTRAR: 619.  
24  
25 EXHIBIT 619: December 30, 2009, Memorandum  
26 for the Minister, Potential Causes of Poor  
27 Returns of Fraser River Sockeye Salmon: With  
28 Focus on Sea Lice Impacts, and transmittal  
29 sheet  
30  
31 MR. TAYLOR: Just for the record, so this is the  
32 briefing note at Tab 8 that's now 619?  
33 MR. WALLACE: Correct.  
34 Q And if we can then go to Tab 9, Dr. Richards, we  
35 have, starting with an e-mail from Jean Landry, or  
36 Jean Landry --  
37 A Jean Landry.  
38 Q Jean?  
39 A Yes.  
40 Q And attached to that we have another version of  
41 this same briefing memorandum. Can you tell me  
42 what this version, or what changes are reflected  
43 in this version and where they came from?  
44 A My understanding, going through this, was that  
45 there was one sentence in the summary, the last  
46 sentence was added to this particular version, and  
47 that change was proposed by one of the staff

20  
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1 members in the office of the Assistant Deputy  
2 Minister of Science and would have been part of  
3 the review process of these notes.  
4 Q Okay. So the one change would be the last  
5 sentence in the first bullet of the summary, the  
6 addition of the words:

7  
8 Sea lice is not considered to be one of the  
9 three most likely factors but is a high  
10 profile issue.

11  
12 Correct?

13 A Yes.

14 Q And that was proposed in National Headquarters,  
15 not in the Region, correct?

16 A Yes.

17 THE COMMISSIONER: Mr. Wallace, in my Tab 9, there are  
18 two summaries; which one are you referring to?

19 MR. WALLACE: I see only one summary.

20 A Mr. Commissioner, I think, again, what has  
21 happened here is the way these notes were  
22 prepared, the earlier note listing all the factors  
23 was part of an attachment, so there are, in fact,  
24 two briefing notes within this, one of which was  
25 an attachment to the note on the sea lice impacts.

26 MR. WALLACE:

27 Q Thank you. So the second document in the briefing  
28 note at Tab 9 is the previous one we just saw?

29 A It's the original one of the 10 factors.

30 Q Right.

31 MR. TAYLOR: Which, in turn, is referred to as an  
32 attachment, at the bottom of the first briefing  
33 note, which is the one that you're focused on  
34 right now.

35 MR. WALLACE: Right. Thank you. So we have here,  
36 then, for the next exhibit, the briefing note, the  
37 covering e-mail from Jean Landry, as well as the  
38 briefing note with the change noted in the  
39 summary, and attached to that we have the previous  
40 version. No?

41 MR. TAYLOR: No, the previous briefing note.

42 MR. WALLACE: Sorry, we have the factors -- thank you.  
43 So we have the factors memoranda, I guess what  
44 we'll call the general memorandum, which deals  
45 with the 10 factors.

46 THE REGISTRAR: That will be marked as Exhibit 620.

47

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1 EXHIBIT 620: Memorandum for the Minister,  
2 Potential Causes of Poor Returns of Fraser  
3 River Sockeye Salmon: With Focus on Sea Lice  
4 Impacts, with attached e-mail from Jean  
5 Landry, dated January 5, 2010  
6

7 MR. WALLACE:

8 Q So Dr. Richards, with these three memoranda which  
9 are collected at Exhibit 616 and A and B, and  
10 we've seen the genesis of them and through other  
11 predecessor documents, am I correct that those are  
12 the only briefing memoranda that went to the  
13 Minister's office relating to the poor returns of  
14 the sockeye in 2009?

15 A Yes, that is correct. Can I take the time to  
16 explain on why?

17 Q Yes, please.

18 A Because I think that might be helpful. You know,  
19 I think what happened is we were going -- when  
20 going through this, certainly the situation was  
21 changing, and at that time we were starting or  
22 thinking, at that time, about the workshop that  
23 was going to happen with the Pacific Salmon  
24 Commission, and so our focus shifted to working on  
25 the preparation for the Pacific Salmon Commission,  
26 and then looking at that as perhaps a more  
27 effective, more up-to-date, better compilation of  
28 the material, rather than just doing these sort of  
29 one-off sequences of briefing notes.

30 So that's why we decided not to continue that  
31 particular path, but really to focus on another  
32 process, which was starting to happen at that  
33 time.

34 Q So, for example, two of the likely issues were low  
35 food abundance and toxic algal blooms, and I take  
36 I they weren't pursued because you abandoned this  
37 process for the PSC process?

38 A Well, there's actually perhaps a couple of things  
39 going on here. First of all, the issue in terms  
40 of the toxic algae was not an area where Fisheries  
41 and Oceans Canada really has expertise. So that  
42 was not an area where we actually could make a  
43 contribution and provide extra, additional  
44 information to feed into a note for the Minister,  
45 so we probably would not have done that,  
46 specifically. We would have, perhaps the best we  
47 could have done, would have included the

1 information that we gleaned in with additional  
2 information in a broader body of work.

3 The issues on the food abundance in Queen  
4 Charlotte Sound, I think around that time, as  
5 well, our thinking was probably shifting to  
6 perhaps it was more the Strait of Georgia than  
7 Queen Charlotte Sound. There was some debates  
8 going on between the relative importance of Queen  
9 Charlotte Sound and the Strait of Georgia. So  
10 really, our thinking around that was starting to  
11 shift, and most of that information was pulled  
12 together for the Pacific Salmon Commission  
13 workshop, which happened in June of that year.

14 Q Thank you. And following the Pacific Salmon  
15 Commission workshop in June, am I correct that the  
16 DFO Science briefed the Deputy Minister in August  
17 of 2010?

18 A Yes, Mr. Commissioner, there was a briefing note  
19 that was prepared based on that workshop. Because  
20 that was done through the Pacific Salmon  
21 Commission, our organization gets a little bit  
22 more confusing within our regional organization.  
23 It's the policy sector which has a lead on things  
24 related to the Pacific Salmon Commission, so  
25 actually the note was put out through the policy  
26 sector, but it was prepared by myself, Mark  
27 Saunders, and the science staff.

28 MR. WALLACE: Thank you. Mr. Commissioner, there's a  
29 document which isn't included in the tabbed  
30 document, which we have circulated. It commenced  
31 with a document headed, Action Request, from  
32 Allison Webb, Regional Director of Policy, and the  
33 subject is the PSC Workshop Report "Synthesis of  
34 Evidence From a Workshop on the Decline of Fraser  
35 River Sockeye".

36 Q Is the briefing note attached to that the briefing  
37 note to which you're referring?

38 A Yes, that's correct.

39 MR. WALLACE: I wonder if the action request and the  
40 September 21, 2010, briefing note to the Deputy  
41 Minister, can be marked as the next exhibit,  
42 please?

43 THE REGISTRAR: Exhibit 621.

44  
45 EXHIBIT 621: Action Request, from Allison  
46 Webb, Regional Director of Policy, Subject:  
47 The PSC Workshop Report "Synthesis of



1 Evidence From a Workshop on the Decline of  
2 Fraser River Sockeye", dated September 21,  
3 2010  
4

5 MR. WALLACE:

6 Q Did this note go to the Minister?

7 A I believe that this was just prepared for the  
8 Deputy Minister.

9 Q Do you know why it didn't follow the course of the  
10 previous memoranda?

11 A I'm sorry, no, I can't say that.

12 Q If I may take you to page 3 of this exhibit under  
13 Recommendations/Next Steps, it says that:

14  
15 ...DFO will develop a research plan,  
16 supplementing some of the suggestions in the  
17 report with other knowledge gaps relating to  
18 an improved understanding and forecasting  
19 ability.  
20

21 Has DFO developed that research plan?

22 A We have begun to develop that plan. You know, I  
23 think that we have certainly started to pull  
24 together information that was related to where we  
25 think the gaps are, what additional work we think  
26 should be done. We have done quite a bit of  
27 background work on it. We haven't finalized it,  
28 in terms of final plan. But subsequent to that,  
29 there has been some other discussion within the  
30 Pacific Salmon Commission about the next steps.

31 And because part of the report also discussed  
32 advice on how we would proceed with next steps,  
33 and that involved a couple of stage process, and  
34 the Salmon Commission has endorsed that process  
35 and we are, now, looking at potentially some  
36 upcoming workshops to flesh this out further, that  
37 will be probably being held in perhaps June and  
38 September, I'm not sure precisely on the dates,  
39 but there has been a Canada/US team that's been  
40 set up to help formulate the tasks associated with  
41 that workshop.

42 And the first one would really be aimed at  
43 working with different groups who are active in  
44 doing research or could contribute to research on  
45 this particular topic and just try to do as much  
46 coordination as possible and try to think about  
47 how to bring that forward.

1                   And then it would be leading into probably a  
2                   research plan or development of a plan that would  
3                   be presented to the Pacific Salmon Commission. So  
4                   there is more ongoing that's following from that.  
5                   Q     Thank you. If I may move to another topic, at Tab  
6                   11 of the binder, there's an e-mail from Terry  
7                   Davis, on the subject of sample speeches and  
8                   templates. Were you aware, in October of 2009, of  
9                   the request for regional subject matter experts to  
10                   develop speeches for a possible House of Commons  
11                   emergency debate, as described in that e-mail?  
12                   A     Yes, I was aware.  
13                   MR. WALLACE: I wonder if this e-mail may be marked as  
14                   the next exhibit, please?  
15                   THE REGISTRAR: Exhibit 622.  
16                   MR. TAYLOR: So just the e-mail?  
17                   MR. WALLACE: Thank you, Mr. Taylor. Attached to the -  
18                   if I can make this cleaner - attached to the  
19                   e-mail and referred to in it are the draft of  
20                   Speaking Notes for a Member of Parliament.  
21                   Q     Are you familiar with this e-mail and the  
22                   attachment?  
23                   A     I am. I am familiar with the e-mail.  
24                   Q     And the attached --  
25                   A     The attachment, yes, I have looked at this.  
26                   MR. WALLACE: Thank you. If we may then have the  
27                   e-mail marked as the next exhibit and the  
28                   attachment with the letter A?  
29                   THE REGISTRAR: That will be marked as 622 and 622A.  
30  
31                   EXHIBIT 622: E-mail string, dated October 2,  
32                   2009, from Terry Davis to multiple parties,  
33                   Subject: Sample speeches and templates  
34  
35                   EXHIBIT 622A: Draft Speaking Notes for a  
36                   Member of Parliament for a Debate on Low  
37                   returns of sockeye salmon to the Fraser  
38                   River, House of Commons, September 17, 2009  
39  
40                   MR. WALLACE:  
41                   Q     In the e-mail, at page 2, it says:  
42  
43                   The bottom line is that Parliamentary Affairs  
44                   has asked for 80 minutes of speeches to be  
45                   developed on a range of issues related to  
46                   Pacific salmon, for use by members of the  
47                   government, in the event that an emergency

1 debate on Pacific salmon is called in the  
2 House of Commons.  
3

4 Do you think it's the role of DFO scientists to  
5 develop speeches for parliamentarians?

6 A Well, that's certainly a bit of a leading  
7 question. I think what we -- the role of Science  
8 is really to provide factual information, and  
9 that's what we do.

10 Q If you go to the next tab, Dr. Richards, you'll  
11 see an e-mail chain, the top of it is an e-mail  
12 from Diane Lake, and the subject matter is Re:  
13 Sample speeches and templates. Have you had an  
14 opportunity to review that e-mail?

15 A Yes, I have.

16 Q And in it there's a reflection of concern about  
17 this sort of job for DFO scientists. You were  
18 aware that that concern was being expressed within  
19 DFO region?

20 A I believe this e-mail chain is from Paul Ryall,  
21 who is not part of the Science organization, so  
22 this was being -- the concern was being expressed  
23 perhaps more broadly than just in the Science  
24 organization.

25 I am certainly aware, and I think we would  
26 have concerns if we were asked to prepare material  
27 that was really political in origin rather than  
28 factual and objective because, as I said, our role  
29 is to provide factual, objective information.

30 Q Yes. So you were aware that these concerns were  
31 there and you have, in your mind, quite firmly,  
32 where the line comes; is that right?

33 A Yes.

34 MR. WALLACE: Thank you. May I have the e-mail  
35 exchange that I just referred to, headed with an  
36 e-mail from Diane Lake, marked as the next  
37 exhibit, please?

38 THE REGISTRAR: Exhibit 623.  
39

40 EXHIBIT 623: E-mail string dated September  
41 29, 2009, from Diane Lake to multiple  
42 parties, Subject: Sample speeches and  
43 templates  
44

45 MR. WALLACE:

46 Q And the next tab in the book, Dr. Richards, starts  
47 with an e-mail from Allison Webb, to you, subject:

26  
Laura Richards  
In chief by Mr. Wallace

1 Sea lice speech.

2 A Mm-hmm.

3 Q You're familiar with this e-mail and the attached  
4 speaking notes?

5 A Yes.

6 MR. WALLACE: May these be marked, please, as the next  
7 exhibit?

8 THE REGISTRAR: 624.

9

10 EXHIBIT 624: E-mail string dated October 5,  
11 2009, from Allison Webb to Laura Richards,  
12 Subject: Sea Lice Speech, with attached draft  
13 Speaking Notes for a Member of Parliament for  
14 a Debate on Low returns of sockeye salmon to  
15 the Fraser River, House of Commons, October  
16 5, 2009

17

18 MR. WALLACE:

19 Q What was your involvement in the writing of this  
20 speech?

21 A I was not involved in the writing of the speech.  
22 Allison did want to clarify with me the fact that  
23 -- the factual information, and that's the  
24 discussion I had on that.

25 Q Okay. And the next tab starts with an e-mail from  
26 Allison Webb to several people and you're copied  
27 on it, Dr. Richards, entitled, Revised Sea Lice  
28 Speech. Is this the version in which you had  
29 input?

30 A I believe that these -- well, these were pulled  
31 from my e-mail, so this would have been a version,  
32 yes, which was copied to me and we would have  
33 discussed. But as I said, my role here was really  
34 just to ensure that we had -- that the information  
35 was as factual as possible and as objective as  
36 possible based on the best science we had at that  
37 time.

38 THE COMMISSIONER: Do you wish it marked, Mr. Wallace?

39 MR. WALLACE: Yes, please. Thank you.

40 THE REGISTRAR: Exhibit 625.

41

42 EXHIBIT 625: E-mail string dated October 5,  
43 2009, from Allison Webb to multiple others,  
44 Subject: Revised Sea Lice Speech, with  
45 attached draft Speaking Notes for a Member of  
46 Parliament for a Debate on Low returns of  
47 sockeye salmon to the Fraser River, House of

March 17, 2011

27  
Laura Richards  
In chief by Mr. Wallace

1 Commons, October 5, 2009

2  
3 MR. WALLACE:

4 Q The next tab in the book, at Tab 15, is covered  
5 with an e-mail from Tom Robbins to you, entitled,  
6 Fraser River sockeye overview document. Do you  
7 recognize this e-mail and the attached speaking  
8 notes?

9 A Yes. And again, these were pulled directly from  
10 my e-mail.

11 Q And what was your involvement in these speaking  
12 notes?

13 A I probably would have just discussed some of the  
14 factual evidence on this with Tom Robbins, who  
15 works in -- for communications.

16 Q That's in the Region?

17 A Yes. Yes.

18 MR. WALLACE: May this document, please, and the e-mail  
19 covering it, be marked as the next exhibit,  
20 please?

21 THE REGISTRAR: Exhibit 626.

22  
23 EXHIBIT 626: E-mail dated October 6, 2009,  
24 from Tom Robbins to Laura Richards, Subject:  
25 SP Fraser River sockeye overview with  
26 attached draft Speaking Notes for a Member of  
27 Parliament for a Debate on Low returns of  
28 sockeye salmon to the Fraser River, House of  
29 Commons, September 17, 2009

30  
31 MR. WALLACE:

32 Q Dr. Richards, was this period of time in the fall  
33 of 2009, the only time you've been involved in  
34 speech writing for members of parliament?

35 A This is the only time I have seen a request of  
36 this nature in my career.

37 Q And going, then, to the next tab, we have an  
38 e-mail from Dr. Kristi Miller-Saunders to a number  
39 of people, including yourself, on the subject of a  
40 discussion on B.C. sockeye salmon and science  
41 issues. And you've reviewed this e-mail?

42 A Yes.

43 Q And just, if I may summarize, because we're  
44 running out of time, this relates to suggestions  
45 of concerns about DFO staff participating in a  
46 Pacific Salmon Foundation series of meetings. Can  
47 you comment on that concern, please?

March 17, 2011

1 A Okay, I think there is a few issues which are  
2 actually raised here, but if I can address that?  
3 This was, at the time, I think you have to realize  
4 what was happening at that time, was we had just  
5 found out about the establishment of the  
6 Commission. We didn't know and have a lot of  
7 details about how that was going to operate, how  
8 that was going to work, what our rules or how --  
9 what was going to be expected of DFO and how we  
10 were supposed to operate in that kind of  
11 environment.

12 And so I think there were some concerns about  
13 staff going and presenting it and talking to  
14 various groups, and then because we're not quite  
15 sure how that would interact with what was  
16 happening with the establishment of the Commission  
17 and how that would lead into or perhaps compromise  
18 or just how that evidence would be used, so I  
19 think there was a decision made at that time that  
20 we would participate in our normal DFO processes,  
21 but we would not participate in external  
22 processes.

23 And as I say, it was really relates to the  
24 fact that the Commission was just established and  
25 we're just trying to figure out, effectively, what  
26 the ground rules were.

27 Q When you say "the Commission" you mean this  
28 Commission?

29 A Yes, this Commission.

30 MR. WALLACE: I wonder if that e-mail string, headed  
31 with an e-mail from Dr. Miller-Saunders could be  
32 marked as the next exhibit, please?

33 THE REGISTRAR: 627.

34  
35 EXHIBIT 627: E-mail string dated November 3,  
36 2009, from Kristi Miller-Saunders to multiple  
37 others, Subject: A discussion on BC sockeye  
38 salmon and science issues  
39

40 THE COMMISSIONER: Mr. Wallace, I've come to appreciate  
41 the role you have with your learned friends in  
42 keeping them on their time limits, and so I --

43 MR. WALLACE: It's not (indiscernible - overlapping  
44 speakers) --

45 THE COMMISSIONER: -- am concerned that there are still  
46 two tabs, I think, that you haven't marked.

47 MR. WALLACE: There's one more, and it relates to the

1 same line, so I think we can deal with it  
2 almost --

3 THE COMMISSIONER: Am I mistaken that Tab 10 was not  
4 marked?

5 MR. WALLACE: That's correct.

6 THE COMMISSIONER: All right. So which tab number are  
7 you on, now?

8 MR. WALLACE: I'm now at Tab 17.

9 THE COMMISSIONER: All right.

10 MR. WALLACE:

11 Q Dr. Richards, it's a similar line, an e-mail from  
12 Dr. Miller-Saunders, and in it there's a quote  
13 that:

14  
15 Laura does not want me to attend any of the  
16 sockeye salmon workshops that are not run by  
17 DFO for fear that we will not be able to  
18 control the way the disease issue could be  
19 construed in the press.

20

21 Can you comment on that concern?

22 A Well, that's very much a misrepresentation. First  
23 of all, it was not my decision, it was that, in  
24 terms of the participation, that I just said, that  
25 was a departmental decision, it was not my  
26 decision.

27 I think we were not so concerned -- I really  
28 -- first of all, let me say I think the work that  
29 Kristi Miller is doing is incredible, exciting  
30 research that I think I -- and the department has  
31 really wanted to fully support, and I do fully  
32 support that work. So if there's some impression  
33 here that I don't support that, that's completely  
34 false.

35 What we were concerned about, however, is  
36 that there are processes that we need to operate  
37 within a government department, and one of those  
38 processes is you need to make sure that you don't  
39 surprise your boss, and in this context we wanted  
40 to get a briefing note into the system so that we  
41 could give a heads up, up the line, about some of  
42 her work, and we were probably delaying preparing  
43 that briefing note because she was continuing to  
44 get more and more information and we wanted to  
45 make sure that when we did send up the briefing  
46 note it was as accurate as possible and had as  
47 much information in it as possible, and so we were

1 perhaps delaying getting that note because we were  
2 hoping we'd get some more information that we  
3 could include in the note, because I'm sure you  
4 appreciate that particular topic is one where  
5 there's been quite an evolution and we're really  
6 on the forefront.

7 So in this context here, I think the issue  
8 was only that we wanted to get a note up so that  
9 we could -- so there would be a process issue  
10 within the system they would be informed before we  
11 were speaking publicly about it. You know, it's  
12 really a courtesy process issue that's the  
13 standard within government operations. That was  
14 the issue.

15 MR. WALLACE: Thank you, Dr. Richards. May this  
16 document, then, the Dr. Miller-Saunders' e-mail of  
17 November 4th, be marked as the next exhibit,  
18 please?

19 THE REGISTRAR: 628.

20  
21 EXHIBIT 628: E-mail dated November 4, 2009,  
22 from Kristi Miller-Saunders to Mark Saunders,  
23 Subject: Version 2  
24

25 MR. WALLACE: Would this be a convenient time for the  
26 break?

27 THE COMMISSIONER: Yes, thank you.

28 THE REGISTRAR: The hearing will now recess for 15  
29 minutes.  
30

31 (PROCEEDINGS ADJOURNED FOR MORNING RECESS)  
32 (PROCEEDINGS RECONVENED)  
33

34 THE REGISTRAR: Hearing is now resumed.

35 MR. WALLACE: Thank you. Mr. Commissioner, Mr. Taylor  
36 is next and I've allotted him 45 minutes.

37 MR. TAYLOR: Mitchell Taylor for the participant  
38 Government of Canada and with me is Hugh MacAulay.  
39 Mr. Commissioner, as well as Mr. Lunn, at Tab 6,  
40 7, 8 of Canada's book there are three documents to  
41 do with preparation of speeches for  
42 parliamentarians. Mr. Wallace is agreeable, and I  
43 have asked others and no one has objected to  
44 simply putting those documents in without the need  
45 for anyone to speak to them, any witness to speak  
46 to them, so I propose then that we do just that.

47 The first tab is number 6 - getting used to



1 Mr. Lunn putting things right to left -  
2 Preparation for Speeches is the name of the  
3 document at Tab 6 and I ask that that be the next  
4 exhibit.

5 THE REGISTRAR: Exhibit 629.

6  
7 EXHIBIT 629: Preparation for Speeches

8  
9 MR. TAYLOR: The document at Tab 7 is labelled  
10 Speechwriting at DFO and I ask that that be the  
11 next exhibit.

12 THE REGISTRAR: 630.

13  
14 EXHIBIT 630: Speechwriting at DFO

15  
16 MR. TAYLOR: The document at Tab 8 is entitled  
17 Compendium of Procedure House of Commons Canada  
18 which I ask to be the next exhibit.

19 THE REGISTRAR: 631.

20  
21 EXHIBIT 631: Compendium of Procedure House  
22 of Commons Canada

23  
24 MR. TAYLOR: Those documents, Mr. Commissioner, which  
25 we will, of course, deal with later in more detail  
26 when it comes to making submissions before you,  
27 govern the process for writing speeches for  
28 government Members of Parliament and who does it  
29 and so forth.

30  
31 CROSS-EXAMINATION BY MR. TAYLOR:

32  
33 Q Dr. Richards, you have described in answer to Mr.  
34 Wallace's questions the process by which three  
35 briefing notes on the 2009 return, Fraser sockeye  
36 return, were developed and you've described a  
37 September 30th, '09 workshop that DFO had. I'm  
38 not sure that you laid out what the purpose of  
39 that 2009, that is September 30th, 2009 workshop  
40 was; can you elaborate on that?

41 A Yes. Certainly, Mr. Commissioner. So I think the  
42 purpose of that workshop was really to engage  
43 different staff who had interest within the  
44 science organization into trying to understand  
45 what happened to -- in 2009 to the return.  
46 Obviously when this event happened, the scientific  
47 staff were immensely interested in this. I mean,

1           there was -- I should say interested not only just  
2           from the event itself, but also from the let's say  
3           scientific interest in trying to understand what  
4           actually happened.

5           So there was a lot of coffee table hallway  
6           discussion about this and that meeting was really  
7           an attempt to bring those groups together, to have  
8           a more thorough, informed discussion about what  
9           happened and thinking about how we then might move  
10          forward, because we expected that we would be  
11          called on to help explain that and we needed to  
12          make sure that we could prepare an informed answer  
13          to that question.

14         Q   Now, this would be early days in terms of when you  
15             had first heard about or it became evident that  
16             there was a poor Fraser sockeye return in 2009.  
17             Can you say when that piece of information would  
18             have come to light to science and to everyone  
19             else?

20         A   Well, I think, Mr. Commissioner, that what we  
21             would be doing is we would be following with great  
22             interest what happened through the Pacific Salmon  
23             Commission during the summer or the Fraser Panel.  
24             The Pacific Salmon Commission meets just about  
25             weekly with -- and they put updated press reports  
26             out with the return and the expected return. So  
27             through particularly, I guess it would be, in  
28             particular, through -- probably starting in July  
29             and into August, we would have been watching the  
30             forecasts or the in-season forecast of the return  
31             change and would have been really flagging it at  
32             that time.

33         Q   Even before the September 30, '09 workshop,  
34             actually just before leaving that, was that a  
35             workshop attended by DFO scientists only or other  
36             people, as well?

37         A   No, that was really intended as an internal  
38             workshop. It was DFO staff only.

39         Q   Right.

40         A   And really, this was an opportunity for us, as  
41             part of our normal process, to really talk with  
42             staff about what was going on here. Clearly there  
43             were a lot of other groups that were also  
44             interested, but this was -- we wanted to have an  
45             internal discussion, you know, talk with staff  
46             first, as we would normally do.

47         Q   Even before the September 30, '09 workshop, was

1           there an occasion when the minister attended in  
2           Vancouver to meet with people interested in the  
3           sockeye situation?

4       A     Yes. Mr. Commissioner, the minister did come into  
5           Vancouver in September and did hold a round table  
6           with stakeholders at that time. I was invited to  
7           participate in that meeting and I was asked to  
8           make a short presentation to that meeting on the  
9           return. I think at that time there were a couple  
10          of things that were in play. One was trying to  
11          explain why our -- there was a lot of question  
12          about why our forecast was bad, what happened to  
13          our forecast, so that was a lot of the initial  
14          focus and thinking about trying to explain why we  
15          did not -- cannot do a very good job on  
16          forecasting.

17                 And secondly, a lot of what was happening at  
18                 that meeting also was trying to inform the  
19                 minister about the next steps in the process,  
20                 which eventually led to this commission, but we  
21                 didn't know -- there were different options that  
22                 were being discussed and, you know, one of them  
23                 was a scientific process as opposed to a formal  
24                 commission. And at that time, the minister was  
25                 really trying to seek views of stakeholders on  
26                 what process to follow.

27       Q     The minister you're speaking of is Minister Shea,  
28           Minister of Fisheries and Oceans, correct?

29       A     Yes, that's correct.

30       Q     And do you recall when Minister Shea was appointed  
31           Minister of Fisheries and Oceans approximately?

32       A     I'm sure you have that information --

33       Q     No, I don't actually.

34       A     I can't recall precisely.

35       Q     It was obviously before September of '09 but  
36           that's fine. Do you know it to be the case that  
37           Minister Shea has been the Minister of Fisheries  
38           and Oceans continuously from at least September  
39           '09 and before that, whenever she was appointed,  
40           right through to the present and continuing?

41       A     Yes, that's correct.

42       Q     Now, you have a binder there of some documents,  
43           Dr. Richards. If you turn to Tabs 1, 2 and 3, you  
44           will see some documents that relate to a round  
45           table that was happening on September 11, 2009.  
46           Is that the meeting that you were describing that  
47           the minister was present at in Vancouver?

1 A Yes, that is correct.

2 Q Is the document at Tab 1 the presentation that you  
3 were referring to a moment ago?

4 A Yes, that's correct. I was asked to make that  
5 summary presentation at the meeting.

6 MR. TAYLOR: All right. May that be the next exhibit,  
7 please, the document at Tab 1 which is Update on  
8 2009 Fraser Sockeye Context, Forecasts and  
9 Returns, September 11, 2009.

10 THE REGISTRAR: 632.

11

12 EXHIBIT 632: Update on 2009 Fraser Sockeye -  
13 Context, Forecasts & Returns - Roundtable  
14 Presentation September 11, 2009  
15

16

16 MR. TAYLOR:

17 Q This document says September 11, 2009. Do you  
18 recall whether that was the date that the minister  
19 met with the people you've described?

20 A Yes, that was the date.

21 Q If you turn to Tab 2, you'll see a Media Lines  
22 document underneath some email headers. What's  
23 that? Do you recognize that and what's that?

24 A I guess I would not have -- I recognise this as  
25 the standard kind of Media Line package. I  
26 probably would not have had a specific input into  
27 this document. But it is our --

28 Q This is a --

29 A -- standard protocol.

30 Q This appears to be a document relating to the  
31 meeting that the minister had with people in  
32 Vancouver, is it?

33 A Yes. Yes.

34 Q Do you know whether this would be prepared before  
35 or after the meeting? Just from the first  
36 sentence, we can see it's probably after.

37 A I would expect that it would be prepared - it  
38 could have been started and they may have started  
39 prepping it prior to the meeting when they've --  
40 based on anticipated, but it would have to be  
41 verified or completed after the meeting, because  
42 it would need to explain what actually happened at  
43 that meeting.

44 MR. TAYLOR: All right. May this be the next exhibit,  
45 please?

46 THE REGISTRAR: 633.

47

1 EXHIBIT 633: Email from T. Davis to K.  
2 Colpitts re Media Lines on Minister's  
3 Roundtable on Fraser River sockeye, September  
4 11, 2009  
5

6 MR. TAYLOR:

7 Q You'll see at the top of Tab 2, now Exhibit 633,  
8 that this is -- the Media Lines are underneath an  
9 email from Terry Davis, and we've seen his name in  
10 a document that Mr. Wallace took you to earlier,  
11 same document that had Mr. Robbins, Tom Robbins,  
12 in it who you identified. Can you identify who's  
13 Terry Davis?

14 A Yes. Terry Davis is the Regional Director of  
15 Communications in Pacific Region Fisheries and  
16 Oceans.

17 Q If you turn to Tab 3, you'll see a summary of  
18 Minister Shea's Pacific Region visit September 11,  
19 2009, it's called; have you seen that document  
20 before and can you identify it as a document  
21 summarizing the meeting that you described  
22 Minister Shea had in Vancouver?

23 A I can't recall whether I was actually party to  
24 this document but I -- it does seem to accurately  
25 reflect what happened at that event.

26 MR. TAYLOR: May that be the next exhibit, please?

27 THE REGISTRAR: 634.  
28

29 EXHIBIT 634: Summary of Minister Shea's  
30 Pacific Region Visit - September 11, 2009  
31

32 MR. TAYLOR:

33 Q If you turn to page 3 of that document, you'll see  
34 a list of people there. If you take a second or  
35 so to look over it, can you identify whether that  
36 is a record of the people from various  
37 organizations that attended with Minister Shea?

38 A That does match my recollection of that meeting.  
39 It does not include on this list the DFO members  
40 who were present at that meeting or the ministry  
41 staff who were present.

42 Q All right. If you turn back then to the first  
43 page of that same document, you'll see about a  
44 third down a list of DFO people; is that --

45 A Yes.

46 Q -- the DFO people who attended? Well, is that  
47 others who attended? All of them may not be DFO.

1 A Yes. That -- those -- yes, I believe that's  
2 correct.

3 Q Okay. And that includes you, of course.

4 A Yes.

5 Q You see your name there. It also says in the list  
6 though Minister G. Lunn; is that Gary Lunn?

7 A Yes.

8 Q So that's a minister of another department, is it?

9 A Yes.

10 Q Or is he? And he was there as well, was he?

11 A He was certainly -- I know that he was there in  
12 the beginning. I can't recall whether he was  
13 actually there for the entire meeting.

14 Q All right. Thank you.

15 Now, in addition to what you've said in  
16 answering Mr. Wallace's questions and what you've  
17 said just now in answering my questions, what  
18 other work did Science undertake to try and  
19 understand and see what the scientific foundation  
20 or explanation or reasons for the 2009 stock or  
21 poor returns was? What else was done, what else  
22 is going on?

23 A Well, in fact, there's quite a bit that is  
24 actually happening and I hope that there will be  
25 an opportunity that that will come out as we  
26 proceed with the hearings over the summer. But in  
27 particular, there certainly was more work done  
28 focused on what we thought were the main  
29 hypotheses, so we did ask staff to do more work,  
30 to do follow-up. In particular, I'm sure you'll  
31 hear about the work of Dr. Richard Beamish in  
32 terms of the Strait of Georgia, Dr. Marc Trudel  
33 was really focused on what was happening in Queen  
34 Charlotte Sound. We were working on the broader  
35 fish health aspects, as well as the disease  
36 aspects that you'll hear about with Dr. Stewart  
37 Johnson, Simon Jones, Kristi Miller.

38 So those pieces, that's probably some of the  
39 major pieces, were ongoing. Each of those  
40 individuals would have been working with  
41 collaborators. We have had some subsequent  
42 meetings to try to review progress and keep  
43 updated. We set up an internal Wiki-type site  
44 where we could keep people informed as to the  
45 progress on different pieces of the scientific  
46 research.

47 There were subsequent meetings. There was

1 the -- after that September meeting that we  
2 discussed earlier, certainly the next major event  
3 after that would have been the Pacific Salmon  
4 Commission workshop that happened. But then  
5 following that, we certainly have continued to  
6 meet. I did meet with staff in January of this  
7 year to get an update on the progress on specific  
8 items, in particular at that time a particular  
9 focus on the work that was happening within the  
10 Strait of Georgia.

11 We have another meeting, internal meeting,  
12 with staff planned for next month to again have  
13 another update on the briefing -- update on  
14 different aspects of what's going on in terms of  
15 the research. There will be some more work that  
16 will be done in conjunction with the Pacific  
17 Salmon Commission as a follow-up to that report  
18 and I mentioned that earlier.

19 So really, there is a very large amount of  
20 work and some of this is ongoing. The story is  
21 evolving as we get more information and try to  
22 follow up on certain leads.

23 Q For the most part, and recognizing that people  
24 come and go, are the scientists that were doing  
25 this work starting and even before September or so  
26 of 2009 still with DFO in the Science Branch here  
27 in Pacific Region?

28 A Yes. Yes, they are.

29 Q So there's a fair continuity of scientists --

30 A Yes.

31 Q -- working on this, is there?

32 A Yes. And I have to say that even when scientists  
33 retire, they still tend to continue doing their  
34 work, because really, say from a scientific  
35 perspective and from the perspective of these  
36 individuals' careers, scientifically speaking this  
37 is a tremendously exciting and challenging  
38 question and so they are very much engaged in  
39 trying to move forward and get some answers.

40 Q Just on that, I understand that what you're  
41 referring to is a program, formal or informal,  
42 that's called the Emeritus Program within DFO  
43 Science, is it?

44 A Yes.

45 Q And can you just briefly in a sentence or two  
46 explain that?

47 A Well, certainly. I think once scientists retire,

- 1 we realized that they just don't stop working or  
2 -- some do, but that's quite rare. So we do have  
3 a program called the Emeritus Program where they  
4 can still have access to some of the DFO  
5 facilities, libraries, email, to continue and  
6 potentially write up some of the work that they  
7 were doing during their career. They're also very  
8 active in mentoring some of our other staff, so  
9 this is really very much a win/win situation for  
10 us and for them as they ease into retirement.
- 11 Q Coming back to the scientists that have been  
12 working on the situation or trying to understand  
13 and analyse the return that happened in 2009, are  
14 these mainly senior scientists or junior  
15 scientists or what?
- 16 A Well, in fairness, I think we have got scientists  
17 and others throughout the organization that are  
18 very much engaged in this but -- and they are at  
19 different stages of their career working on some  
20 of these different pieces. So we do have a bit of  
21 a spectrum, depending on areas of expertise so,  
22 you know, work falls within areas of expertise.  
23 But in general the leaders are the more  
24 experienced.
- 25 Q You've spoken to some of what I'm about to answer,  
26 but am I correct that answers to the science  
27 questions that relate to the stock returns are not  
28 easy to come by?
- 29 A That's -- yes. I think if we had some easy  
30 answers, we would not be in this inquiry, but --  
31 and in general, as normal, when you start to delve  
32 into certain kinds of questions or start to get  
33 some information, it just raises more questions,  
34 so this work really is ongoing.
- 35 Q And relative to that, is it the case that when  
36 answers start to emerge, they are often not firm,  
37 but rather soft in terms of how sure --
- 38 A Yes.
- 39 Q -- you are of the answer?
- 40 A That's very much. I think the situation is, you  
41 know, the normal scientific process goes on by  
42 really effectively some kind of speculation about  
43 what could be happening and then you try to gather  
44 evidence to try to sort out your degree of  
45 certainty or belief in that information. And some  
46 things go by the wayside and other things are  
47 pursued. But often there will be some key pieces



- 1 of information which change your thinking on  
2 something, but very much the situation is evolving  
3 as we get more information coming in.
- 4 Q Am I also correct that analyzing a problem that  
5 emerges in terms of the science analysis and  
6 finding answers often takes considerable time?
- 7 A That's very much correct. I mean, these are  
8 complicated issues and, as I said, unfortunately  
9 it's not simple and it's likely to be compounding  
10 on several factors that are involved and so it  
11 really does take time to assemble, try to collect  
12 more information. Often in these situations you  
13 wish you had some data that just simply don't  
14 exist, so you try to do the best you can to look  
15 at surrogates for some of that information and to  
16 some extent other information becomes apparent  
17 later that wasn't available in the beginning.
- 18 Q Now, you've spoken of the Pacific Salmon  
19 Commission forum in June of 2010 already. Can you  
20 elaborate on that? Firstly, was that hosted by  
21 the Pacific Salmon Commission?
- 22 A It was hosted by the Pacific Salmon Commission and  
23 the Pacific Salmon Commission, as you know, is an  
24 intergovernmental organization between Canada and  
25 the United States, so it was really co-funded by  
26 both parties.
- 27 Q And it was focused on Fraser sockeye, was it?
- 28 A It was focused on trying to understand what  
29 happened in 2009 and to try to pull together the  
30 best advice we had based on the work that not only  
31 DFO was doing, but also based on information that  
32 was available from others who were -- other  
33 scientists who were collecting data and  
34 information around that question.
- 35 Q Was it scientists who attended this forum?
- 36 A There were -- there were scientists who were  
37 presenters at that forum. There was also some  
38 observers or other participants who were not  
39 scientists. I believe some of counsel was present  
40 at that meeting and there were also some members  
41 of the fishing industry and First Nation  
42 representatives who also attended. It was open, I  
43 believe, to some members of the Fraser Panel which  
44 includes a fairly broad group, as you would have  
45 heard.
- 46 Q Was it over two days or so?
- 47 A Yes, it was.

1 Q Did you attend?

2 A I did attend the meeting.

3 Q And without going through a list of names, can you  
4 say what sort of organizations or entities sent  
5 people to this forum?

6 A Well, what we tried to do, because it was, in  
7 part, balanced and between Canada and the United  
8 States, we tried to make sure that we had a broad  
9 representation of U.S. interests, as well as  
10 Canadian interests, so in addition to the -- to  
11 members of DFO, we also had members from  
12 university. Alexandra Morton was invited and was  
13 there. So it was a fairly broad spectrum of  
14 people who we thought might have information to  
15 contribute to this topic.

16 Q Thank you. So this would be -- include  
17 government, NGOs, other governmental agencies  
18 besides Fisheries, would it?

19 A Yes, that's correct.

20 Q Did it include First Nation representatives, do  
21 you know?

22 A I believe that there were some -- I believe, as I  
23 recall, that there were certainly First Nation  
24 participants who were a part of the Fraser Panel,  
25 so they did observe, but there were no  
26 presentations that were from First Nations.

27 Q Now, I understand and you've, I think, referred to  
28 this, that a report resulted from that forum?

29 A That's correct.

30 Q And that's a report that came out end of August of  
31 2009?

32 A Yes.

33 MR. WALLACE: That's Exhibit 73.

34 MR. TAYLOR: Thank you.

35 Q Is there a core group within DFO of scientists who  
36 are working on analyzing what happened in 2009 and  
37 trying to come up with some answers from a science  
38 perspective?

39 A I would say yes, there is a core group who are  
40 involved in this and that would be specifically  
41 the individuals who were already engaged in  
42 research on salmon in and around the Strait of  
43 Georgia and particularly on sockeye salmon. We've  
44 also pulled in some others who were not so engaged  
45 directly, some of the experts, for example, in  
46 marine mammals, because certainly that piece of  
47 the question has come up.

- 1 Q And are those the scientists that core group that  
2 will be at a meeting that you were indicating  
3 you're going to have internally in the next short  
4 while?
- 5 A That is certainly the intent. You know, it would  
6 be an internal meeting, again, for -- and part for  
7 me to understand how things are evolved because I  
8 need to find out from my staff what their thinking  
9 is and they needed a chance to talk to each other  
10 about some of these issues.
- 11 Q And you, in turn -- or in turn, rather, will they  
12 be the ones that will participate in a further  
13 salmon commission forum that you indicated --
- 14 A Yes.
- 15 Q -- is being planned, at least, for sometime later  
16 this year?
- 17 A I'm not sure exactly where we are in terms of the  
18 preparation for this future meeting and who will  
19 be invited to that. Certainly some of them will.  
20 Whether they all will or not, normally at these  
21 kinds of international events, we have a  
22 restricted ability for invitations and so we would  
23 not have everyone. We would have perhaps a  
24 representative group attend.
- 25 Q How is the very high return that we saw for Fraser  
26 sockeye in 2010 being worked into the work on the  
27 2009 low returns, if it is being worked in?
- 28 A Well, clearly there is as much scientific interest  
29 in what happened in 2009, there is similarly  
30 scientific interest in what happened in 2010. And  
31 what we'd like to have is make sure that if we  
32 have an explanation for what happened in 2009,  
33 that it would be consistent with what happened in  
34 2010.
- 35 Q So if the June of 2010 Pacific Salmon Commission  
36 forum was on the 2009 low returns, do you envisage  
37 that the 2011 forum, whenever it happens this  
38 year, will be looking at both the 2009 low return  
39 and the 2010 high return?
- 40 A Yeah. As I mentioned, I'm not explicitly involved  
41 in the organization, but I -- of that meeting, but  
42 I assume that that would be a topic of interest.
- 43 Q Then moving even further beyond that is the work  
44 that's been done now currently underway that  
45 you've described to deal with the 2009 and the  
46 2010, as well, is it tied into or relate back to  
47 the overall decline in productivity that has been

- 1 observed in varying ways or varying degrees from  
2 sometime in the 1990s forward?
- 3 A Well, as you will have seen from the Pacific  
4 Salmon Commission report from the June workshop,  
5 that workshop was interested in the longer-term  
6 decline, as well as what happened in 2009. And I  
7 think the concern was we again, we're looking for  
8 consistency. We want to have a series of  
9 hypotheses and explanations that sort of fit the  
10 overall picture, as well as fit the specific  
11 events to the extent that's possible. So I would  
12 anticipate that that would continue to be a focus.  
13 Obviously there has been some concern about the  
14 overall long-term decline and we need to  
15 understand that piece, as well.
- 16 Q All right. Thank you. Now, Mr. Wallace took you  
17 to Tab 2 of the commission's binder which has got  
18 -- that's the one that's got a lot of documents in  
19 it, and you identified that as the material for  
20 the meeting that you had in September, September  
21 30th of 2009. I'm not going to ask you to look at  
22 all of the material at Tab 2, but you're generally  
23 familiar with it, are you?
- 24 A Yes.
- 25 Q And can you say whether more is known now on the  
26 science topics that are covered in this material  
27 than was known then?
- 28 A Absolutely. There's more known. I mean, this was  
29 work, you have to appreciate, that was pulled  
30 together as very preliminary and probably on short  
31 notice. You know, we hadn't -- we didn't know a  
32 lot at that time. We hadn't had much and it was  
33 just said, you know, science takes place over, you  
34 know, an extended period to get -- to develop on  
35 some of this and so I think some of the work that  
36 would have been presented here would be  
37 contradictory to and different from stories that  
38 you will hear later as we get more information and  
39 the thinking on this scientifically evolves.
- 40 Q And then it tends to follow, but let me ask you  
41 whether some of the content of the material in Tab  
42 2, which is now an exhibit, will be outdated?
- 43 A Yes, absolutely. It will be outdated.
- 44 Q And that's the beauty of science, in part, is it,  
45 that it's --
- 46 A Exactly. That's the way science operates, is we  
47 tend to put things out and then those are

1 challenged and there's more information that comes  
2 in and things change. You know, particularly when  
3 you're looking at a topic like this because it's  
4 something we'd never seen before, so really, we're  
5 at the forefront of our thinking and that thinking  
6 -- the longer-term thinking tends to be a little  
7 bit different from the short-term thinking.

8 Q And if you like, one of the hearts, and there may  
9 be more than one heart, but one of the hearts of  
10 science is it's a constant learning exercise.

11 A Absolutely. Absolutely.

12 Q Now, another document that Mr. Wallace took you to  
13 is what's now called Exhibit 616B and that's the  
14 disease briefing note and the easiest place to  
15 find it, I think, is in Tab 5 of Mr. Wallace's  
16 material, and the disease briefing note is the  
17 last of the documents in that tab.

18 On page 3 of that note, which is almost at  
19 the end of the tab, there is a bullet under  
20 "Analysis" and I think we've got what we need,  
21 thank you, Mr. Lunn. The fourth bullet which  
22 begins:

23  
24 Other causes (than a virus) have been  
25 considered.

26  
27 And then it says:

28  
29 Several different parasites are known to  
30 infect adult sockeye salmon as they migrate  
31 up the Fraser River.

32  
33 A Mm-hmm.

34 Q And then it goes on. Are you aware of a parasite  
35 that's in brackish water at the mouth of the  
36 Fraser River?

37 A Yes, I am. Certainly we had been concerned about  
38 this and I believe when Dr. Hinch was here, he may  
39 have referenced some of this work. We had been  
40 very interested in what was going on with the Late  
41 Run group of sockeye and the high mortality that  
42 they were experiencing with their early entry into  
43 the river and that mortality seems to have been  
44 exacerbated by presence of a parasite and so there  
45 was quite a bit of -- an interest over time and  
46 within the last decade on some of this work  
47 because it seemed to be at least related to

- 1 mortality or at least related to the -- whether it  
2 was actually the cause of mortality or not, that  
3 wasn't so clear, but it was at least -- the fish  
4 that were found on the spawning ground did seem to  
5 have this particular disease factor.
- 6 Q Can you say what is brackish water?
- 7 A I think brackish water, it would be water -- I'm  
8 not sure I can give you a precisely correct  
9 oceanographic definition, but it would be a water  
10 which has a --
- 11 Q A layman's definition will suffice.
- 12 A A layman's definition would be one where there is  
13 -- in between marine salinity and fresh water of  
14 sort of zero salinity, so it would have some low  
15 level of salinity.
- 16 Q All right. And obviously that's typically found  
17 at the mouths of rivers.
- 18 A Right. Right.
- 19 Q Now, Mr. Wallace asked you some questions that,  
20 amongst other things, led you to say that the role  
21 of science is to provide factual information and  
22 that's what we do, as I heard you. In addition,  
23 is it also the case that science as a branch  
24 provides advice to the Department of Fisheries and  
25 Oceans, scientific advice, that is?
- 26 A Yes, absolutely. We provide scientific advice,  
27 but that scientific advice needs to be grounded in  
28 the -- in research and into factual evidence.
- 29 Q And that advice, in turn, and the facts that  
30 you've learned comes from research of various  
31 sorts?
- 32 A Yes. Yes. Maybe if I could just clarify that  
33 too, you know, the scientific advice is only one  
34 piece of the advice that goes into the department,  
35 so it may or may not impact on any final decision  
36 that's taken in any particular situation. But,  
37 you know, our role is to provide the scientific  
38 piece of the story which is then combined with  
39 other factors that would then influence a final  
40 decision.
- 41 Q All right. I'd like to take you back, if I might,  
42 for a moment to the document that's at Tab 3 which  
43 has now become an exhibit, Tab 3 of the Canada  
44 list of documents. That's the summary of the  
45 September 11th, 2009 meeting the minister had with  
46 people in Vancouver. And you'll see on the first  
47 page, I'm going to call it the third bullet, but I

1           suppose properly it's the first sub-bullet under  
2           the second bullet. It begins:

3  
4                     Request for a science forum...

5  
6           A     Yes.

7           Q     Is that one of the genesis or drivers that  
8                     ultimately led to the June '09 -- sorry, June 2010  
9                     Pacific Salmon forum?

10          A     No. Perhaps I could clarify what was going on  
11                     here. As I think I mentioned, the context of this  
12                     meeting was before any decision was made on this  
13                     particular commission, and there certainly was  
14                     some thinking about different options that were  
15                     being considered at that time should we have this  
16                     kind of inquiry or should we do some other kind of  
17                     process. So I think the science forum was an  
18                     alternative process that was being proposed rather  
19                     than going forward with a commission. And there  
20                     were various other kinds of options in between  
21                     that were also being proposed.

22          MR. TAYLOR: Is my time up?

23          MR. WALLACE: No, by my calculation though you have  
24                     nine minutes.

25          MR. TAYLOR: Thank you.

26          Q     Would I be correct that it's by no means an  
27                     everyday occurrence that the minister comes out to  
28                     Vancouver and meets with a group of stakeholders  
29                     and Fisheries officials?

30          A     I mean, ministers do tend to come out on a fairly  
31                     regular basis, probably a couple times a year, and  
32                     meet with various stakeholders.

33          Q     All right. Still within this document at Tab 3  
34                     which I should say has an exhibit number now, and  
35                     I apologize, I don't know it.

36          MR. LUNN: 633.

37          MR. TAYLOR:

38                     Q     Exhibit 633. On the second page --

39                     MR. WALLACE: Apparently it's 634.

40                     MR. LUNN: Oh, pardon me.

41                     MR. TAYLOR:

42                     Q     634 is the exhibit number. You'll see on the  
43                             second page about halfway down the text there's a  
44                             bullet that begins:

45  
46                             Many participants...

1 Et cetera. It's the second-last bullet there.

2 A Yes.

3 Q And it says in the last part of that bullet:

4

5 ...DFO staff were acknowledged for their  
6 efforts to conserve and protect salmon...

7

8 Is it your memory that at that meeting the  
9 participants there gave high support for  
10 conserving and protecting salmon?

11 A I mean, I think most of the stakeholders believe  
12 that we do need to conserve and protect salmon. I  
13 can't recall the explicit, but I do recall some  
14 very passionate discussions around that topic at  
15 the meeting.

16 Q All right. Do you recall whether biodiversity or  
17 conservation units or stocks and the importance of  
18 different stocks was discussed?

19 A I think again the stakeholders who were there  
20 probably spoke to their specific area of interest.  
21 In particular, as I recall, some of the First  
22 Nations participants, you know, spoke to their  
23 specific areas, so in that context, yes. But  
24 perhaps -- perhaps not with those kinds of words.

25 Q All right. Turning to the preparation of speeches  
26 for a possible debate in the House of Commons that  
27 Mr. Wallace was asking you about, first let me ask  
28 do you know whether a debate ever occurred in the  
29 House of Commons on Pacific salmon in 2009?

30 A I believe that it did not occur.

31 Q And you've testified what you and some others  
32 within the Pacific Region of Fisheries did and  
33 were asked to do. Was this an exercise that was  
34 being led and driven from the Department in  
35 Ottawa?

36 A Well, it probably was. I mean, we get it down  
37 through the region, so I'm not necessarily always  
38 aware of the background that's happening at the  
39 Ottawa level on this kind of topic.

40 Q All right. And you may not have an answer to this  
41 question yet based on what you've just said, but  
42 do you have any knowledge as to what unit or part  
43 of Fisheries was spearheading this?

44 A I probably should, but I know that's not my area.

45 Q All right. That's fine. And you've given  
46 evidence about this and just to underline what may  
47 be the obvious, this was a highly unusual request



- 1 that was being made of Science Branch, I take it?  
2 A Yes.  
3 Q And you've spoken to this, but again to underline  
4 things, is this something that you had not been  
5 engaged in before?  
6 A Well, we have certainly been engaged in certain  
7 areas, for example, in doing notes for Question  
8 Period if there's some kind of question we would  
9 be engaged in writing that kind of material. But  
10 it would be simply factual. This is what we know.  
11 Q Right. But in terms of speech writing?  
12 A But in terms of speech writing, at least my  
13 interpretation of a speech was that it would be --  
14 include information that was not necessarily  
15 factual. It may include the feelings of the  
16 individual and certainly we could not prepare that  
17 kind of information. We were certainly able to  
18 input into the factual material.  
19 Q And you as a scientist or in Science Branch had  
20 not been asked to participate in that kind of  
21 exercise before?  
22 A That's correct.  
23 Q Or since?  
24 A Correct.  
25 Q You mentioned Question Period notes, probably  
26 almost ask the commissioner to take judicial  
27 notice of what Question Period is, but again, to  
28 be clear, that's a period in the House of Commons  
29 -- or do you know whether that's a period in the  
30 House of Commons when people can ask various  
31 government ministers whatever question they decide  
32 to ask?  
33 A I believe that's the way our parliamentary system  
34 works.  
35 Q And Question Period notes are factual information  
36 that's prepared by staff on a particular topic  
37 that they know something about that then --  
38 A Yes.  
39 Q -- is inputted to the system, is it?  
40 A Well, I think if there is an expectation that the  
41 member may be asked a question on specific topic  
42 or the minister might be, that -- and we have  
43 background on that, we are asked to pull together  
44 the information that we have and our factual  
45 information on that note. But it is strictly  
46 factual.  
47 MR. TAYLOR: All right. Thank you. I believe I've met

1 my time.

2 MR. WALLACE: Thank you, Mr. Taylor. Mr. McDade I have  
3 as the next counsel.

4 MR. McDADE: It's Gregory McDade for Dr. Morton and the  
5 Aquaculture Coalition.

6

7 CROSS-EXAMINATION BY MR. McDADE:

8

9 Q Good morning, Dr. Richards. Can I ask -- let's  
10 turn to the commission and start with the  
11 commission documentation. As I understand it, the  
12 September 30, 2009 meeting was really the genesis  
13 or the basis of the information that was  
14 ultimately included in the briefing note on  
15 factors?

16 A Yes, that's what we've --

17 Q And the 2009, the September 30th, 2009 meeting was  
18 an internal meeting for DFO scientists who you  
19 felt were particularly knowledgeable on the  
20 subject?

21 A Well, it was for scientists who were particularly  
22 knowledgeable, plus some others who were  
23 interested. We did try to bring a fairly broad  
24 group of people. In fact, there was quite a lot  
25 of interest in that particular -- obviously, there  
26 was interest in that subject.

27 Q So it was really your best minds on the subject,  
28 or at least that was your attempt?

29 A Our attempt was to bring our best minds and  
30 tempered to some extent by availability of staff.

31 Q And as -- I think as you stated, you're not a  
32 particular expert in these subjects. You relied  
33 on these people to give you your advice?

34 A Well, these were the people who were out in the  
35 field, who were there on the ground, who were  
36 engaged in the research who are working to pull  
37 that information together.

38 Q So I want to take you to Exhibit 613G, one of the  
39 presentations there by Dr. Miller. You're  
40 familiar with this presentation?

41 A I'm familiar with the presentation, and I will say  
42 just for clarity that I was not present in the  
43 audience when this work was presented.

44 Q Yes. But the -- presumably the rest of your best  
45 minds were there when it was presented.

46 A I hope so.

47 Q And it formed the basis of your thinking as you

- 1 and Mr. Saunders prepared the briefing note?
- 2 A It was part of that, yes.
- 3 Q All right. And so I'm really just trying to get  
4 what you knew and when you knew it in terms of DFO  
5 science. If I could turn to page 4, you understood  
6 at that point that at least in September of 2009  
7 that Dr. Miller was targeting a retrovirus?
- 8 A Well, that was certainly one hypothesis, I mean,  
9 at that time, and there was no virus that was  
10 identified.
- 11 Q All right. But that -- your best scientist on  
12 this was identifying a retrovirus?
- 13 A Well, she was suggesting it was a retrovirus. I'm  
14 not sure that -- I mean, that was her view on this  
15 at that time.
- 16 Q Right. And you, as you've said, have to bow to  
17 her expertise?
- 18 A Yes. And in this particular area, you know, we  
19 also had other experts on -- in fish health and  
20 there was not necessarily always full agreement  
21 between all the experts and particularly, what was  
22 going on here.
- 23 Q There was nobody at that meeting who disagreed,  
24 was there?
- 25 A I can't answer that question because I was not in  
26 the audience at that time.
- 27 Q All right. Fine. Can I go to page 9? You see  
28 the reference to unprecedented levels of mortality  
29 in 2008?
- 30 A Yes.
- 31 Q And the reference below that is to 2009 sockeye  
32 not showing up, which is the purpose of this  
33 commission, and the suggestion that the 20 percent  
34 decline in tumours could account for .9 million  
35 fish going missing in the Strait of Georgia,  
36 right?
- 37 A That's what that says, although I think we have to  
38 be a little careful in doing an interpretation of  
39 a -- this kind of presentation because we don't  
40 have all the full context and the facts stated  
41 here.
- 42 Q True. But the -- in terms of what DFO science  
43 knew, this was the best information you had in  
44 September 2009?
- 45 A Well, this was -- this was the -- her  
46 interpretation at that time. I mean, this is very  
47 much -- has been a work in progress and I think we

- 1 need to be really clear that the work that she's  
2 been doing here has really been on the forefront  
3 and when you're on the forefront, you don't always  
4 have all -- it isn't fully worked out and this  
5 particular area is something -- this area has been  
6 one which has been quite evolving in the thinking.
- 7 Q Yes. I'm just going to what -- in the evolution,  
8 September 30th, 2009, this was the thinking of  
9 your top scientist on this matter?
- 10 A That was her thinking at that time.
- 11 Q Right. And that she noted that in 2005, which was  
12 the brood year for the 2009, that 75 percent of  
13 the adults were positive for that viral signature,  
14 right?
- 15 A That's what this -- yes. You're reading the  
16 document, yes.
- 17 Q And --
- 18 A That's what --
- 19 Q Well, I'll go in a few minutes to what you did  
20 with this material, but I just wanted to know what  
21 material you had to work with. So if I could go  
22 to page 11. So the heading of that page is  
23 "Strong Linkages of Genomic and Brain Tumour Data  
24 with Plasmacytoid Leukemia Caused by the Salmon  
25 Leukemia Virus". That was the hypothesis of your  
26 best scientist on this matter?
- 27 A That was her hypothesis. I'm not -- as I say,  
28 there was some other points of view amongst some  
29 of our other experts in fish health on this and I  
30 don't -- I'm not fully aware of the debate that  
31 took place at that particular event, because I  
32 wasn't there.
- 33 Q What other experts in your fish health field would  
34 you have consulted about this, if any?
- 35 A Well, we have a group of staff whose expertise is  
36 fish health. That group of people are currently  
37 led by Stewart Johnson. We also have on staff  
38 Kyle Garver, who is an expert in virology, the  
39 study of viruses.
- 40 Q Well, did either of those people disagree with Dr.  
41 Miller to your knowledge?
- 42 A I'm not quite sure. I know that there were some  
43 concerns about going too far and speculation at  
44 this time, but I'm not fully -- let's say I'm  
45 having trouble remembering the full sequence of  
46 details. I think what we want to do is just to  
47 try to be, you know, careful. Some of this was

1 really on speculation and what we're really trying  
2 to do is ground this in fact, and the scientific  
3 process really does evolve by challenge and then  
4 trying to get more information to confirm or  
5 reject certain points of view.  
6 Q But in this period of September 30th and shortly  
7 thereafter, when you were drafting the briefing  
8 note, is -- I'm just asking for your evidence, as  
9 to whether you recall any -- consulting any  
10 specific other scientist who would have disagreed  
11 with this conclusion.  
12 A Certainly in the preparation of that briefing  
13 note, we did engage others, including Stewart  
14 Johnson to make sure that we were representative.  
15 As I said, my task is to try to get people  
16 together and to agree as much as possible on what  
17 was being presented and this is one area where the  
18 thinking was -- or has evolved.  
19 Q But you don't specifically recall today speaking  
20 to Dr. Johnson and having him tell you he  
21 disagreed with this?  
22 A Well, I know that there were some more general --  
23 he had some other points of view. I can't recall  
24 explicitly what those were in the context of this  
25 particular slide that you have on -- up here now.  
26 Q All right. Well, I'll come to the subsequent  
27 documents in a few minutes. But the name of the  
28 virus that was being purported at that point was  
29 the salmon leukemia virus, right?  
30 A That certainly was a hypothesis that she was  
31 putting forward.  
32 Q This is also called -- you see the third bullet,  
33 it's also called marine anaemia?  
34 A Yes.  
35 Q That's the name for it when it's in fish farms,  
36 right?  
37 A I am not the expert on diseases, so I'm sure we'll  
38 -- you'll have more testimony on that later, I  
39 would expect.  
40 Q Well, when you were preparing the briefing note,  
41 did you know that?  
42 A Well, I think what I was doing was relying on  
43 those experts to help prepare that note and I was  
44 clarifying them that we did have that technically  
45 correct.  
46 Q All right. Can we go to page 14? Heading on page  
47 14 refers to "If SLV" - that's salmon leukemia

- 1 virus - "is a primary factor in the salmon  
2 declines in B.C.". So the -- there was at least  
3 speculation by Dr. Miller that the salmon leukemia  
4 virus was a primary factor in the salmon declines.
- 5 A That was her speculation at the time as I recall.
- 6 Q Yes. Now, under the heading "Potential for  
7 mitigation", you'll see that she refers to the  
8 possibility that if one takes action, you could  
9 minimize the vertical transmission. What do you  
10 as a scientist understand the words "vertical  
11 transmission" to mean in the salmon field?
- 12 A Well, I really think that that level of discussion  
13 would be better placed with our disease experts at  
14 the time we have that testimony.
- 15 Q Do you not know what vertical transmission even  
16 means?
- 17 A I am not -- I have a general sense of that but I'm  
18 not going to give you a specific definition. I  
19 think that really needs to be done with the  
20 experts.
- 21 Q Well, Dr. Richards, I don't -- I'm not looking for  
22 a highly technical definition here. I'm looking  
23 for your understanding of what that means.
- 24 A Well, we are talking -- I -- look, I'm just --  
25 sorry, I'm sorry. I just -- my brain has gone  
26 fuzzy on that particular point right now, so I  
27 would rather not give you an answer that's wrong.
- 28 Q Well, doesn't it simply mean that you can transmit  
29 from the parent stock through the eggs to the next  
30 generation?
- 31 A It -- I think that's what it is, but I would like  
32 to -- as I said, this is not my area and I just  
33 want to be very careful to not give incorrect  
34 evidence.
- 35 Q Well, when you were preparing the briefing note,  
36 would you have consulted someone to get a  
37 definition of that other than Dr. Miller?
- 38 A As I mentioned already that there were multiple  
39 individuals who were involved in preparing that  
40 note and in particular, I would have also had some  
41 discussions with our experts on fish health that I  
42 would have relied on to -- and between the two to  
43 make sure everything was technically correct.
- 44 Q Well, wouldn't it be important to at least  
45 understand what that concept means?
- 46 A Well, I'm sure I did at the time. You're asking  
47 me today.

1 MR. McDADE: I see. All right. Well, there's two  
2 minutes left, Mr. Commissioner.  
3 THE COMMISSIONER: I think maybe this would be a good  
4 place to...  
5 MR. McDADE: Yes.  
6 THE COMMISSIONER: Thank you very much.  
7 THE REGISTRAR: Hearing is now adjourned until 2:00  
8 p.m.  
9

10 (PROCEEDINGS ADJOURNED FOR NOON RECESS)  
11 (PROCEEDINGS RECONVENED)  
12

13 THE REGISTRAR: The hearing is now resumed.  
14

15 CROSS-EXAMINATION BY MR. McDADE, continuing:  
16

17 Q Dr. Richards, you attended a conference on early  
18 migration and premature mortality in June of 2008?

19 A Yes, that's correct. I did attend most of that.  
20 I wasn't there for the full meeting again but I  
21 was there for most of that meeting.

22 Q So now, this is a document that's at Tab 8 of my  
23 list of documents but it's an early draft of the  
24 document that became Exhibit 557 that was entered  
25 when Dr. Hinch testified. Can I just go to page  
26 64 of this document, though? Yes, and if you  
27 could just -- we'll blow up the abstract in the  
28 bottom third of the page. So at that conference,  
29 Dr. Miller presented her hypothesis that the  
30 disease agent is intercellular, possibly a virus.  
31 Do you remember that?

32 A There was certainly a presentation that she made  
33 at that meeting and I can't recall specifically  
34 exactly what she said but I have to assume that  
35 the abstract is an accurate representation.

36 Q Well, you, in fact, attended there as the co-chair  
37 of the Committee on Scientific Cooperation?

38 A That's correct.

39 Q And ultimately prepared a summary of these  
40 proceedings?

41 A Yes, that's correct. Well, a very short summary  
42 that was sort of based on this.

43 Q But Dr. Hinch sent you a copy of the very document  
44 we're looking at?

45 A Yes, that's correct.

46 Q Yes, and so you reviewed it?

47 A Well, I didn't review the -- I can't say that I

1 honestly read every single line in this document  
2 but I did skim the document, yes.

3 Q If we could go over to page 66 in the middle of  
4 the page, again, four lines under the "Healthy/Un-  
5 Healthy Profiles", you'll see the reference to  
6 "viral or parasitic origin". So you'd agree with  
7 me, would you, that the Department, DFO, Science,  
8 was aware of this viral hypothesis at least as  
9 early as June of 2008?

10 A We were certainly aware of the fact that this was  
11 a hypothesis and I think we were very actively  
12 hoping and trying to work with Kristi to get more  
13 information so that we could actually get more  
14 solid information behind this. I think we all  
15 wanted to -- we realized that this is incredibly  
16 -- from a scientific standpoint, this work was  
17 incredibly exciting and interesting but it was  
18 also very novel and right on the edge of very  
19 breaking kind of science. And so we also wanted  
20 to get more information and to try to encourage  
21 her to do some more work so that we could actually  
22 get some more substance behind this.

23 MR. McDADE: If I could ask, Mr. Lunn, if you'd go to  
24 Tab 13. Mr. Commissioner, I'm not going to  
25 propose that this document go in as an exhibit  
26 simply because we have Exhibit 557 and it's  
27 identical in these particular lines. Unless  
28 someone wants it in as an exhibit.

29 Q At Tab 13 then. You've reviewed this document,  
30 Dr. Richards?

31 A As I say, this was not a document that was  
32 submitted by me. I think I saw it.

33 Q This is a funding request.

34 A Yeah.

35 Q That would run through your office?

36 A Well, this was -- I mean she was certainly working  
37 with Mark Saunders at the time and I don't  
38 specifically recall but I probably did see this  
39 document.

40 MR. McDADE: All right. And this is a November 13th,  
41 2008, briefing note. If I could ask that we blow  
42 up the second paragraph?

43 Q You'll see the reference there in the middle of  
44 the paragraph to:

45  
46 The unhealthy profile fish were characterized  
47 by early river entry and high in-river



1                    mortalities (16x greater probability of dying  
2                    en route to spawning grounds.  
3

4                    That's a very significant finding from a  
5                    departmental perspective, is it not?

6                    A    Well, this work was done in the context of the  
7                    other work that was done on the early entry of  
8                    Late Run sockeye. And certainly, we were a party  
9                    to and, you know, basically since about 2002, we  
10                   were supporting research into trying to understand  
11                   why this was actually happening. Some of the work  
12                   that's been done here is perhaps most leading as  
13                   to perhaps more evidence about what was going on  
14                   there. So obviously, yes, we are very interested  
15                   in this work but we're also realizing, as I say,  
16                   that this is basically cutting edge science and as  
17                   soon as you start looking at this, you start  
18                   raising more questions than you have answers.

19                   Q    Yes. Well, you see the last line of that  
20                   paragraph that:

21  
22                                      Functional analysis revealed that un-healthy  
23                                      fish were responding to an intracellular  
24                                      pathogen with profiles most consistent with a  
25                                      retroviral infection.  
26

27                   So the concept of retrovirus was certainly out  
28                   there in the Department at least as early as 2008?  
29                   A    I mean there had been some speculation. I mean  
30                   this is early thinking and speculation on this.  
31                   This is not fully-developed, you know, peer-  
32                   reviewed science. And what we were trying to do  
33                   or were interested in doing is trying to confirm  
34                   whether, in fact, this was correct or not.

35                   Q    But it would not be correct to say that the  
36                   hypothesis that this could be a retrovirus first  
37                   occurred in mid or late 2009. It occurred in  
38                   2008.

39                   A    I can't recall specifically when this was first  
40                   being done. But certainly I know that Dr. Miller  
41                   was very active in sort of thinking about this and  
42                   we were certainly trying to get more information.  
43                   But I'd say this time it was very early in her  
44                   analysis.

45                   Q    And you notice in the next paragraph, if we could  
46                   scroll down a bit, that the reference is to Salmon  
47                   Leukemia Virus, SLV, on the fourth line and Marine

1 Salmon Anemia, also called Plasmacytoid Leukemia.  
2 So by November 2008, that hypothesis was present  
3 in the Department?

4 A Yes, it was there as a hypothesis.

5 Q You'll see at the last line of that paragraph, if  
6 we can scroll down a bit, yes.

7  
8 The table below lists the accumulating  
9 evidence that suggests the disease afflicting  
10 our sockeye salmon is retroviral in nature  
11 and could be plasmacytoid leukemia.  
12

13 And there's a table over the page that lists that  
14 evidence. So there's accumulating evidence at  
15 that point, is there?

16 A Well, there's some evidence. I mean I think, to  
17 be fair to what was going on here, I think the  
18 expertise by Dr. Miller was really in the area of  
19 the genomics. And we did have others in the  
20 Department that were more knowledgeable about  
21 viruses and about fish health in particular but  
22 certainly that she was very focused on this and  
23 has been working to try to get more evidence and  
24 further information on this particular topic.

25 Q If I could just go back, sorry, to the previous  
26 page at the very bottom, the last line:

27  
28 Vertical transmission of the virus would also  
29 introduce the possibility of effects at other  
30 developmental stages, such as smolts.  
31

32 Do I take it that you don't understand what that  
33 means or...?

34 A Well, I think we went through that already.

35 Q Okay. Over the page then just underneath the  
36 table. Dr. Miller here refers to it in this  
37 document as "the potential devastating impacts of  
38 this disease on sockeye salmon". You see those  
39 words? Just below the table.

40 A Okay, yes.

41 Q Yes. Now, I think I asked you on November 4th  
42 when you were last here, when Science is dealing  
43 with something that is a potentially devastating  
44 impact, do you act any differently? Do you fund  
45 more research? Do you move quicker?

46 A We try. Certainly. I would hope that we would do  
47 that. But as I say, this was very cutting edge

- 1 work and I think we were extremely interested and  
2 certainly were aware of these potential  
3 consequences but we also wanted to try to get more  
4 information and were wanting to work with Dr.  
5 Miller so that we could get more substantive  
6 information to understand this and also to  
7 understand the scope because, as I say, once you  
8 start to look at this, you certainly come up with  
9 more questions.
- 10 Q You'll see at the bottom line of that paragraph  
11 that the request is for \$60,000 in funding for  
12 2009 and 2010. Do you know if Dr. Miller got that  
13 funding?
- 14 A I can't recall precisely how much funding we did  
15 find but I know that we did provide her with some  
16 additional funding. I can't recall precisely what  
17 the amount was.
- 18 Q Well, in terms of potentially devastating impacts,  
19 certainly you gave her the whole funding she was  
20 requesting, didn't you?
- 21 A I mean the normal process is that scientists often  
22 try to inflate their budgets a little bit so we  
23 normally would do a bit of challenge to say what  
24 really of this piece is the most important right  
25 now to get that. So we would always sort of go  
26 and look at those numbers and try to focus on the  
27 things that were the highest priority.
- 28 Q Well, would you be able to determine, by going  
29 back to your office, whether that funding was  
30 provided or how much? And could you provide that  
31 to Commission counsel?
- 32 A I would have to discuss it with some others  
33 because I'm not sure exactly what the root of that  
34 funding was. It was probably done through the  
35 office of Mark Saunders, who was the division  
36 manager. So it was probably his group that  
37 provided the additional funding rather than  
38 directly from my office. So I'm sure we can  
39 probably find it, yes.
- 40 Q Okay. And so you'll agree to provide that  
41 information?
- 42 A We will try to provide it. We'll do everything we  
43 can to provide that information for you.
- 44 MR. McDADE: Mr. Lunn, if I could go to Tab 36, which I  
45 think is a -- hold it. Before I do that, I should  
46 probably mark this document as an exhibit, the  
47 November 13, 2008 Briefing Note.

1 THE REGISTRAR: Exhibit 635.

2  
3 EXHIBIT 635: November 13, 2008 Briefing Note

4  
5 MR. McDADE: So if I could go to Tab 36, if that's a  
6 letter of March 3rd, 2011? Yes, thank you.

7 Q Dr. Richards, this is a letter to Dr. Morton from  
8 the Minister. Did you have a hand in drafting  
9 this letter?

10 A I did not draft the letter. It more than likely  
11 would have gone through me to approve it but I  
12 didn't not draft it.

13 Q All right. Well, can I just draw your attention  
14 to the second-last paragraph on that page? The  
15 statement from the Minister is, in the last  
16 sentence:

17  
18 The sockeye salmon that were studied were  
19 sampled in 2006, but the tissue was not  
20 analyzed until 2008 and 2009, and the  
21 hypothesis that the results indicated  
22 possible exposure to a virus was not made  
23 until mid-2009.

24  
25 Do you see that statement?

26 A Yes, I do.

27 Q Now, that's incorrect, isn't it? It was actually  
28 mid-2008?

29 A Well, I take your point about that earlier note  
30 and that possibility but I think I'm not quite  
31 sure exactly. There were multiple things going on  
32 here and multiple studies. And so I think it's  
33 sort of in the context of which pieces. It's  
34 possible that it was. I take your point from that  
35 earlier documentation but I'm just not quite sure  
36 what the background here in relation to this  
37 particular piece in linking that particular  
38 response to the other work that we were just  
39 discussing.

40 Q Well, this is potentially a very important matter,  
41 Dr. Richards. If a potentially devastating impact  
42 from a virus was identified in 2008 by a senior  
43 scientist at DFO, I'm going to ask you, what  
44 action was taken between 2008 and 2009 to deal  
45 with that?

46 A Yes, and what we wanted to do and what we're  
47 doing, as I mentioned, was that we were trying to

- 1 get more information and try to get more  
2 background to confirm this. So what we -- as I  
3 said, I know that we provided more funding to Dr.  
4 Miller. I can't at this point say exactly how  
5 much but we were encouraging that more work could  
6 be done because we also wanted to -- you know,  
7 this was her personal point of view at that time  
8 and we wanted to confirm that and try to get as  
9 much additional information as we could.
- 10 Q Well, the statement from the Minister in 2011 that  
11 the hypothesis wasn't made until mid-2009, as  
12 we've seen, is potentially incorrect. And what  
13 I'd like to know is, was the Minister misinformed  
14 by your department on that?
- 15 A If that's the case then it would have been  
16 something that we had reviewed internally. In  
17 fact, yes.
- 18 Q If you could do it again, you'd correct that,  
19 would you?
- 20 A Well, you've pointed to some additional pieces but  
21 again I'm not sure of the context and I'd have to  
22 verify all that.
- 23 Q All right. If we could go to document --
- 24 A I think in this context what we're talking about  
25 is some other very specific samples that were not  
26 analyzed in that time. So there were a lot of  
27 samples and a lot of work that was going on and so  
28 I'm just trying to match the specific samples with  
29 the response. So that's why I can't give you a  
30 completely clear answer on this.
- 31 MR. McDADE: Could I ask that that exhibit be marked?  
32 THE REGISTRAR: Exhibit 636.
- 33 MR. McDADE: The letter of March 3rd, 2011, from the  
34 Minister.
- 35
- 36 EXHIBIT 636: Letter dated March 3, 2011,  
37 from Ministry of Fisheries and Oceans to Dr.  
38 Alexandra Morton
- 39
- 40 MR. McDADE: If I could ask you, Mr. Lunn, to go to the  
41 document at Tab 16?
- 42 Q Dr. Richards, this is a workshop on February 6,  
43 2009. The list of attendees seems to include you?
- 44 A That's correct.
- 45 Q And Dr. Miller, four lines below you?
- 46 A Yes.
- 47 Q And Dr. Miller gave another presentation at that

1 workshop?

2 A Yes. Well, to be clear, this workshop -- there  
3 were no formal presentations at this workshop.  
4 This was a small group and what happened at this  
5 particular meeting was there was an opportunity of  
6 basically a round table where everyone got to  
7 speak for a few minutes but it wasn't a formal  
8 presentation.

9 Q Well, if we go to page 17 of that document, if you  
10 can review page 17, 18 and 19. There's two or  
11 two-and-a-half pages there of a report from Dr.  
12 Miller. So she reported again on her work on the  
13 virus at that conference, did she not?

14 A She reported on the work that she was doing, yes.

15 Q And so you were aware of that work at that time?

16 A I mean I was aware of the work that she was doing,  
17 yes.

18 Q All right. If I could now go to the document that  
19 was marked this morning at Exhibit 614, which is  
20 at Tab 3 of the Commission documents?

21 MR. WALLACE: Sorry, Mr. McDade, did you intend to mark  
22 the document you just referred to?

23 MR. McDADE: Oh, yes, thank you, Mr. Wallace. Yes,  
24 could I mark that last exhibit, the report?

25 THE REGISTRAR: Exhibit 637.

26 MR. McDADE: Thank you.

27  
28 EXHIBIT 637: Report on the Workshop on  
29 Climate Impacts on Pacific Salmon - February  
30 6, 2009 - Vancouver, BC  
31

32 MR. McDADE: So Exhibit 614, Tab 3, if we go to page 5  
33 of that document, please?

34 Q This document is the summary of the September  
35 30th, 2009, Science review?

36 A I think it was more than a summary of that. I  
37 think that there was additional material that was  
38 put in and it would have perhaps been updated. So  
39 it may have been a bit of an expansion on what was  
40 done at that time. At the time this document was  
41 prepared, it would have been the most up-to-date  
42 information that was provided by the researchers.

43 Q Well, if we go to page 1 here, it seems to be an  
44 email from Mr. Saunders dated November 12, 2009.  
45 So that would be the date of this particular  
46 document?

47 A I can't say precisely what the date of the actual

1 document was. I know that this was intended as a  
2 living document and it was worked on at various  
3 times.  
4 Q Well, if I could go to page 4 again and if we  
5 could go to the very bottom of that page?  
6 MR. LUNN: Page 4 of --  
7 MR. McDADE: Page 4.  
8 MR. LUNN: -- the electronic?  
9 MR. McDADE: No. Yes. Sorry. Page 5 is at the bottom  
10 right-hand corner. Yes, thank you. A little  
11 lower. There's a computer record at the bottom of  
12 the document I just want to blow up at bit.  
13 Q It seems to indicate a date of November 9. Can we  
14 agree that this document was accurate as of  
15 November 9?  
16 A That would have been 2009 in November.  
17 Q Oh, November.  
18 A Not the 9th of November.  
19 Q Okay. So an uncertain date in November. But in  
20 any event, so this represented the departmental  
21 thinking as of November 2009?  
22 A Well, this represented a summary of what the  
23 scientists had compiled as their best evidence.  
24 This was not a peer-reviewed document. This was a  
25 contributed document based on their best evidence  
26 at that time and it was really intended for  
27 internal use.  
28 Q So this was a peer-reviewed document representing  
29 their best --  
30 A No, I'm saying it was not a peer-reviewed  
31 document.  
32 Q I see. Okay.  
33 A Just to be clear, it was something that was put  
34 together by the individual contributors to let  
35 others internal to Science know what they were  
36 thinking at the time to help them in the context  
37 of their overall thinking about what might have  
38 happened in 2009 to the sockeye.  
39 Q Again, you see the last line of the large  
40 paragraph under "Disease":  
41  
42 However, viral arrays pointed to the presence  
43 of a virus in the retrovirus family.  
44  
45 So that was still the Department's thinking in  
46 November of 2009?  
47 A That was the work that was put forward by Dr.

1 Miller at that time. As I say, this piece would  
2 have been contributed by Dr. Miller to that  
3 overall document.

4 Q If I could go over the page to the second  
5 paragraph on the next page starting, "The very  
6 significant reduction". It suggests the en route  
7 mortality may be indicative of lesion-associated  
8 mortality.

9  
10 If so, the levels of mortality required to  
11 bring prevalence levels down by over 30%  
12 would be sufficient in magnitude to account  
13 for large-scale losses in the ocean.

14  
15 Do you see that?

16 A Yes.

17 Q Now, the next sentence says that it's possible  
18 that the lesions could regress. But if, in fact,  
19 the lesions were the cause of the mortality, what  
20 that statement says is large-scale mortality.  
21 This could be the cause of the 2009 decline,  
22 right?

23 A That's what that statement says. Or I should at  
24 least -- could have said -- could have been  
25 contributed to.

26 Q Well, it didn't say that, does it? On its own,  
27 it's responsible for large-scale mortality.

28 A Yes, but we need to look at all of this in  
29 context.

30 Q Yes. So that document was available to you when  
31 you were preparing the briefing notes to the  
32 Minister?

33 A And I think we need -- now, I just need to be a  
34 little clear of the context here and the timing  
35 because we actually started preparing the briefing  
36 note after the meeting or in October was when we  
37 had started working on the briefing note, I  
38 believe. And this one is from November so there  
39 could have been a little bit more thinking that  
40 has gone into this subsequent to the material that  
41 we had at the time that we did the first draft on  
42 that briefing note.

43 Q Well, there's nothing new in that statement I just  
44 read to you, I suggest, than what was in the  
45 September 30th presentation. The September 30th  
46 presentation speculates the same point, that  
47 large-scale mortality --



- 1 A Yeah, and I think through this period we were  
2 continuing to get some more information but I  
3 don't dispute that there was -- yes, that there  
4 was some thinking that that could have been an  
5 issue that could have been sufficient a magnitude  
6 to account for the decline. And that information  
7 is referenced in the briefing note.
- 8 Q Well, now, as you say, you were preparing this  
9 briefing note from very early in October, at least  
10 from October 5th or 6th, right?
- 11 A Yes.
- 12 MR. McDADE: And if I could go over to Exhibit 615,  
13 we'll look at that.
- 14 Q So that's an email dated October 6th with an  
15 attached draft of the factors affecting sockeye  
16 return on the next page. Now, this is a document  
17 that you had the pen on, right? You were the  
18 drafting officer?
- 19 A This would have been written by Mark Saunders.
- 20 Q Of your office?
- 21 A Yes. Yes, he is a division manager that is  
22 responsible for the Salmon Division. He's been  
23 interviewed here several times.
- 24 Q And so you and Mr. Saunders together organized the  
25 September 30th conference?
- 26 A Yes, most of the work was done by Mr. Saunders.
- 27 Q And you and Mr. Saunders were responsible for this  
28 document?
- 29 A As I said, Mr. Saunders did the first draft of  
30 this document but we did work on it together, yes.
- 31 MR. McDADE: Now, Mr. Commissioner, I just want to say  
32 for the record at this point that we asked  
33 formally of Commission counsel that Mr. Saunders  
34 be present at this time and we've asked that he be  
35 called. I just leave that recommendation with my  
36 friend.
- 37 MR. TAYLOR: Mr. Saunders has been called and here  
38 several times and he's not in Canada at the  
39 moment.
- 40 MR. McDADE: On this subject is what our request was in  
41 relation. Can I go to page 2, which would be, I  
42 suppose, the third page of the exhibit, page 2 of  
43 the attachment.
- 44 Q So this was an early draft of the document and in  
45 it you go through a number of possible scenarios  
46 for various causes. I just want to take you  
47 through your conclusions at this time. Yours or

1 Mr. Saunders, whichever it was. The first,  
2 "Pollution in Lake Watersheds", that was said to  
3 be unlikely as the cause of the 2009 decline,  
4 right?

5 A Yes.

6 Q The second, "Fishery Effects", it says "possible  
7 impacts". But if you look at the last line, the  
8 conclusion was it would only explain a small  
9 proportion of the 2009 mortality. That was your  
10 conclusion at the time.

11 A Yes.

12 Q So that was not the likely cause of the 2009  
13 decline, in your view at that time.

14 A Yes.

15 Q The third bullet is the viral disease effects.  
16 And the conclusion there is in the middle of --  
17 that the virus could be a major contributor to the  
18 mortality occurring through the life history. And  
19 that it could provide an explanation for the short  
20 and long-term declines for sockeye. Is that  
21 right?

22 A Yes.

23 Q And the only reason for not concluding that is  
24 that you have to complete histology to confirm the  
25 virus.

26 A Well, I think the histology was not for the virus.  
27 As I recall, the histology was more looking at the  
28 tumour issue.

29 Q Okay. So at least this bullet was a possible  
30 cause of the 2009 decline?

31 A Yes.

32 Q The next bullet is "Predation offshore by Humboldt  
33 squid". It said that that's a possible impact.  
34 But down the paragraph it suggests that it's not a  
35 key factor. That's the second-last line of that  
36 paragraph, right?

37 A Yes.

38 Q The next one is "Predation in Strait of Georgia".  
39 And your conclusion then was that that was  
40 unlikely to be the impact for 2009, right?

41 A Yes.

42 Q And the next one was sea lice. And what you say  
43 there is it's possible. Let me paraphrase the  
44 first sentence.

45  
46 While it is possible that sea lice from farms  
47 contributed to the mortality the degree of

- 1                    impact is difficult to assess.  
2                    So you weren't attributing the 2009 cause to sea  
3                    lice at that point?  
4                    A                    That's correct.  
5                    Q                    The next heading on the following page is the  
6                    mortality attributed to algal blooms. And if you  
7                    look to the fifth line or so there the no reports  
8                    of fish kills suggests it is unlikely. So your  
9                    conclusion again was although it was a possible  
10                    impact, it was unlikely.  
11                    A                    Well, that's what is written here but that's not  
12                    consistent with I think what we have a little bit  
13                    later.  
14                    Q                    Right. But at this time, your conclusion --  
15                    A                    Well, as I say, this was, I think, the first draft  
16                    that Mr. Saunders had done for our discussion so  
17                    it's possible that not everything in here is  
18                    actually quite correct. So I suspect that he just  
19                    miscopied something or didn't interpret something  
20                    correctly when he drafted this.  
21                    Q                    All right. But we'd have to have Mr. Saunders to  
22                    know that, wouldn't we?  
23                    A                    Yes, but as I say, this was just his first draft  
24                    but then we did come up with another draft very  
25                    shortly after that, I think, so...  
26                    Q                    But you were relying on Mr. Saunders at this point  
27                    to attribute that cause as being unlikely.  
28                    A                    As I say, this is the work that he had just put in  
29                    and he was considering that. That's what he has  
30                    written in this note.  
31                    Q                    All right. The next phrase related to the krill  
32                    fishery. And there again the reference is that  
33                    the 2009 impact was unlikely.  
34                    A                    Yes.  
35                    Q                    That's both in the first line and --  
36                    A                    Yes.  
37                    Q                    -- in the fourth line.  
38                    A                    Yes.  
39                    Q                    And the mortality due to low prey abundance, there  
40                    doesn't seem to be a rating in that paragraph, but  
41                    that's the one that you said subsequently  
42                    lessened, in your view, as being a significant  
43                    cause.  
44                    A                    I think that we did go through some different  
45                    thinking on that. I think that, no, there was --  
46                    when we did actually write that note, we did think  
47                    that that was actually probably a fairly

- 1 significant factor. I think there is still some  
2 scientific question about how significant that is  
3 and we're still doing research to come up with  
4 that. I think at this point we would rate the  
5 Strait of Georgia issues as probably higher than  
6 those than the factors that happened in Queen  
7 Charlotte Sound.
- 8 Q Well, I suggest to you of all of those factors  
9 then at that point the most likely factor in your  
10 conclusions was the disease factor.
- 11 A Based on what is in that note at that time, as I  
12 say, but this was just an early draft.
- 13 Q Now, I note under "Recommendations", the only  
14 specific one, of course, that's dealt with is  
15 exactly that, the one that's probably most likely,  
16 the disease work, the second bullet, right?
- 17 A Yes.
- 18 Q And what is said there by you and Mr. Saunders is  
19 the disease work will be of extreme interest and  
20 may be quite controversial. Now, can you explain  
21 to the Commissioner what you meant by "extreme  
22 interest" and why?
- 23 A Well, okay, first of all, it's not what I meant.  
24 As I said, this was the first draft of a note that  
25 was done by Mr. Saunders. But I think what's  
26 intended here is we do think that -- I mean I do  
27 think we think that the work that Kristi Miller  
28 has done is very important and -- first of all,  
29 it's very interesting scientifically but also very  
30 important from trying to contribute an  
31 understanding to what's going on here. I mean her  
32 research was one of the key pieces of research,  
33 which is actually really finding some results that  
34 seemed that they could be playing into what was  
35 going on in terms of the 2009 return. And so,  
36 yes, we were obviously very, very interested in  
37 that. We were also aware that he hypothesis  
38 around the virus, as you've said, could be  
39 controversial and we needed to get some more  
40 information to try to verify what was actually  
41 going on.
- 42 Q And by "controversial", did you understand that to  
43 mean controversial in terms of the public  
44 reaction?
- 45 A Yes.
- 46 Q And the next line says a communication strategy  
47 has to be developed or should be developed. What

- 1 did that mean, a communication strategy?
- 2 A Well, as I say, this was an initial draft that Mr.  
3 Saunders had done about that work and just  
4 thinking about normally -- but this is really --  
5 if I can go back to process. I mean this is a  
6 standard piece of the way things work. When we  
7 have some new findings or new information, we  
8 would normally prepare some kind of briefing note,  
9 we would normally prepare some -- if we think that  
10 there's going to be queries in the media about  
11 this information, we would normally help staff in  
12 preparing communication lines or media lines  
13 around this kind of information. So that's  
14 probably what was implied by Mr. Saunders at this  
15 time. As I said, this is just part of standard  
16 operating practice.
- 17 Q Well, were you concerned about public  
18 overreaction?
- 19 A Well, we were concerned about trying to get as  
20 much of the truth out as possible. And we were  
21 concerned about trying to be as factual as we  
22 could and trying to figure out what really was  
23 going on because, yes, I think we were concerned  
24 about overreaction but that's because we just also  
25 had more questions ourselves and we know if we had  
26 questions there were going to be other questions  
27 that were going to be posed and we wanted to be in  
28 a position to try to get answers to some of those  
29 questions.
- 30 Q Was a communication plan prepared?
- 31 A I don't recall that one was prepared.
- 32 Q Let me suggest to you that the communications plan  
33 was not to release this to the public at all.
- 34 A That is false.
- 35 Q When did the Department first release to the  
36 public that there was a suspected virus in salmon?
- 37 A Well, I think Kristi Miller has been going to  
38 various meetings and talking to that. And there  
39 was some discussion in various forums about this.  
40 There has certainly been some, you know, more  
41 recent publications but there -- you know, when  
42 there have been presentations given, that has been  
43 on the table. As you already pointed out, that  
44 was given at the workshop at the -- that was done  
45 -- convened by Scott Hinch in 2008.
- 46 Q No, my suggestion to you -- my question to you  
47 relates to releasing this data to the public or to

1 the media, not to scientific forums.

2 A Well, I mean our job is not to release things  
3 directly to the media. That's not the -- that's  
4 not the role of Science within the Department.  
5 What we -- what I do, do is try to inform the  
6 decision-makers.

7 Q You don't write letters to the -- the Department  
8 doesn't write letters to the media relating to the  
9 sea lice threat, for instance?

10 A Yes, the Department write letters. But I'm just  
11 -- but normally letters would be done in response  
12 to something that was sent to us.

13 Q Let me suggest to you the first time this question  
14 of the virus has ever been in the public record in  
15 the media was November 3rd, 2010, when the *Globe*  
16 and *Mail* released this memorandum.

17 MR. TAYLOR: Well, I object to the question. How is  
18 the witness supposed to know when the media did  
19 something? I doubt Mr. McDade knows when the  
20 media did everything that they do.

21 MR. McDADE: Well, I'll rephrase the question.

22 Q Do you know whether the media has ever been told  
23 of this disease?

24 A I think, Mr. Commissioner, I don't -- I'm not  
25 really interested -- or that my job has not got to  
26 do with what the media knows or doesn't know.  
27 Certainly, we -- had been opportunities where this  
28 was discussed. This was discussed at the -- for  
29 example, it was discussed at the June Pacific  
30 Salmon Commission meeting. There was some  
31 discussion about that within that meeting.

32 So it was -- and as we already said, there  
33 was some discussion about it at the workshop on  
34 Late Run sockeye that you've already pointed to.  
35 So certainly these things were sort of known  
36 within the scientific community. It's not that we  
37 normally -- or our process would not be to go  
38 directly to the media on this. Our process would  
39 be to prepare scientific papers that follow  
40 through a normal peer-review process where then  
41 this stuff would be released through the normal  
42 peer-review channels.

43 MR. McDADE: Can I go to Exhibit 628, please?

44 MR. WALLACE: Mr. Commissioner, I just note that by the  
45 allocation, Mr. McDade has eight minutes.

46 MR. McDADE: Well, I count nine but I'll see what we  
47 can do. Exhibit 628, please?

1 MR. LUNN: It's up.

2 MR. McDADE: All right.

3 Q This is the document, Dr. Richards, where --

4 A Okay.

5 Q -- Dr. Miller is quoted as saying that you have --  
6 don't want to indicate to the PSC that disease  
7 research is of strategic importance. Where did  
8 she get that idea?

9 A I don't know where she got that impression and  
10 that impression that she has is completely false.

11 Q And at the bottom of the page, the earlier email:

12

13 Laura does not want me to attend any of the  
14 sockeye salmon workshops that are not run by  
15 DFO for fear that we will not be able to  
16 control the way the disease issue could be  
17 construed in the press.

18

19 A Again, that is also a misrepresentation of what  
20 was going on.

21 Q Did you talk to her about this?

22 A I probably did talk to her and she -- as I say,  
23 this is -- I'm sure I did talk to her about this  
24 and, unfortunately, this is not -- clearly, I did  
25 not communicate what was going on but I think the  
26 issue here is really -- the issue, as I explained  
27 earlier, was really one of process. We realized  
28 that this was a very important issue and we wanted  
29 a chance, following our normal practice, to make  
30 sure that we briefed up and informed our senior  
31 authorities up the line before things were  
32 announced publicly, which is the normal practice  
33 within the Department.

34 We had taken a little longer to get this  
35 information up than we would have liked because  
36 the work that Dr. Miller was doing was changing  
37 and evolving so quickly, we wanted to keep having  
38 the most up-to-date contextual information and  
39 that story just kept changing. And so what we  
40 really -- the issue here is that we were trying to  
41 wait to get some more results from her before we  
42 put the note up and then suddenly we had a meeting  
43 that was called and we hadn't had a chance to do  
44 the full briefing up the line. So it's not that  
45 we were trying to hide something; it was more that  
46 we were trying to make sure that we had  
47 information go up the line before people were

- 1 surprised by reports in the media.
- 2 Q So once you'd given the disease briefing note then  
3 any reluctance to let her go to the media would  
4 have been gone?
- 5 A Yes. On my part. But as I say, within the  
6 Department, there's a process on this and this  
7 process was then complicated by calling the  
8 formation of this Commission. And as I mentioned  
9 earlier today, when the Commission was first  
10 established, we weren't quite sure within DFO what  
11 our ground rules were and what we could do and how  
12 we were supposed to behave in that context.
- 13 Q Dr. Richards, when Dr. Miller released her science  
14 paper in January of this year --
- 15 A Yes.
- 16 Q -- she was told she should not speak to the media.  
17 Are you aware of that?
- 18 A Yes. And again, I think -- but yeah.
- 19 Q And throughout all of 2010, she was told she  
20 shouldn't speak to the media; isn't that right?
- 21 A I cannot -- I'm not aware of other instances.
- 22 Q I'd like to take you to Exhibit 622-A, the speech  
23 -- the speaking notes for a Member of Parliament.  
24 Are you aware those speaking notes were being  
25 produced for an emergency session of Parliament?
- 26 A Yes, I gave that evidence already today.
- 27 Q Right. And the title, as I see, is "For a Debate  
28 on Low Returns of Sockeye Salmon to the Fraser  
29 River". You understood that was the subject of  
30 the speech?
- 31 A That's -- I'm just going with the title. All I --  
32 I wasn't party to how that work was being divided  
33 up.
- 34 Q Well, Doctor, when I read that speech, it seems to  
35 be a whole bunch about how sea lice is not the  
36 problem but there's not one word in that speech  
37 about virus. Is that right?
- 38 A As I say, I did not write these. They were based  
39 on information that we had and some of that  
40 information may have -- I know that what they were  
41 doing, though, was trying to divide up some of  
42 this material between various different notes. I  
43 think the issue of diseases was somewhere in  
44 these. I don't recall specifically which one.
- 45 Q If we go to page 7 of that document. Do you see  
46 the second paragraph?  
47



1                   A number of factors could be the cause,  
2                   including the impact of climate change.  
3

4                   Now, you knew, Dr. Richards, at the time that  
5                   speech was being written for Parliament that virus  
6                   was the leading likely cause, likelihood, and why  
7                   is it that it doesn't appear --

8           MR. TAYLOR: I object.

9           MR. McDADE: Sorry?

10          MR. TAYLOR: Dr. Richards isn't here to answer how  
11                   someone else wrote a briefing note or a speech,  
12                   rather.

13          MR. McDADE: I think it's a relevant question. I have  
14                   nothing more to say about that on that matter.

15          MR. TAYLOR: Well, in addition, she hasn't testified,  
16                   and I don't think Mr. McDade has put forward any  
17                   evidence, that everyone knew that a virus was the  
18                   leading cause of something or other.

19          THE COMMISSIONER: It might be just a question of  
20                   rephrasing your question, Mr. McDade.

21          MR. McDADE:

22          Q     Why, Dr. Richards, didn't you ensure in your  
23                   advice on this document that Parliament was  
24                   informed about the virus?

25          A     Well, first of all, as I mentioned, these things  
26                   were done through different notes. And we were  
27                   still trying to determine whether, in fact, there  
28                   was a virus. And you know, so work has been  
29                   ongoing to determine whether or not there was  
30                   actually a virus and, you know, that work is still  
31                   ongoing to say whether this is actually a virus or  
32                   not. To the best of my knowledge, we have not  
33                   confirmed whether there's still a virus that's  
34                   related to the genomic signature that we've seen.

35          Q     Can I --

36          A     So --

37          Q     Sorry.

38          A     So I think -- and what we have said is that that  
39                   was -- there were other things that were in play  
40                   as well as that. There were other factors that we  
41                   thought were in the highly likely category at that  
42                   time. It's possible that all of these factors  
43                   were happening simultaneously so it's -- now, I  
44                   think we're thinking that it's just not one but  
45                   there's probably a host of factors here that are  
46                   interacting. So my recollection is that there  
47                   were other notes that were more explicit on this

1 particular topic. Or other of these speeches that  
2 were prepared that had some other information in  
3 it.

4 MR. McDADE: Can I go to Tab 22 of my documents?

5 Q Dr. Richards, here's a request from Dr. Miller for  
6 funding for the fiscal year January to March 2010  
7 to identify the virus in the retrovirus family.  
8 You'll see that in the middle of the page, \$87,000  
9 in funding is requested. Was that provided?

10 A I don't know where this was intended. I don't  
11 know. You know, scientists write proposals all  
12 the time to different funding sources and I'm not  
13 sure what funding source was intended with this  
14 particular note. Perhaps you should ask Dr.  
15 Miller about that.

16 MR. McDADE: Can I go to Tab 25?

17 MR. WALLACE: Mr. McDade, did you wish to have that  
18 marked?

19 MR. McDADE: Yes, please.

20 MR. WALLACE: You're now into injury time.

21 MR. McDADE: All right. I'll be two minutes. This  
22 will be my last document I refer to.

23 THE REGISTRAR: Exhibit 638.

24 MR. McDADE: 638?

25  
26 EXHIBIT 638: Proposed Research on Suspected  
27 Novel Virus from Genomics Study on Sockeye  
28 Salmon  
29

30 MR. McDADE: At Tab 25, there's another funding  
31 request.

32 Q That's a funding request to, again, establish the  
33 prevalence and intensity of the viral signature.  
34 And if you go over the page to item 3, there's a  
35 request for establishing whether or not  
36 aquaculture fish could be affected by the  
37 purported viral disease and could thus be  
38 carriers. And you'll see the cost is set out in  
39 bold in the middle paragraph.  
40

41 COST to establish using arrays whether anti-  
42 viral signatures is present in Atlantic  
43 salmon: \$18,750.  
44

45 Was that funded?

46 A I don't know whether that specifically was funded.  
47 I believe it was but I can't confirm that exactly.

1 Again, I'm not exactly sure. We have a lot of  
2 different particular funding sources that are  
3 going on here and I'm not sure exactly which one  
4 this was. I presume it was but I can't confirm  
5 that.

6 Q The Minister's letter of March 3rd says:

7  
8 DFO has not conducted research associated  
9 with this gene expression signature and  
10 salmon farms, and will not speculate on such  
11 a link.  
12

13 Has it been done or not?

14 A I am not aware of the status of that work.

15 Q The DFO has contributed something like \$23 million  
16 to aquaculture research to making -- including  
17 making genetically modified fish that would be  
18 protected from virus. Why is the Department not  
19 prepared to fund this kind of work?

20 MR. TAYLOR: That's not something for this witness.

21 MR. McDADE: Well, isn't she the person who testified  
22 as to how funding took place?

23 A I mean I think we would be interested in the work.  
24 I don't -- I'm just not sure about this particular  
25 -- whether this was in fact done or not. I agree  
26 that we would be interested in doing that work but  
27 I just can't verify whether in fact it was done.

28 Q At this point, you have no information as to  
29 whether fish farms are the cause of this disease  
30 or not, do you? None at all?

31 A I think we have no particular reason to suspect at  
32 this point that there is any link, as was said.  
33 Nor do we have -- as I mentioned, we're still  
34 trying to confirm what we've actually got in terms  
35 of what's causing the signature.

36 MR. McDADE: Thank you. Thank you for the extra time,  
37 Mr. Wallace.

38 MR. WALLACE: Thank you, Mr. McDade. The Province of  
39 British Columbia, Mr. Prowse. Mr. McDade, did you  
40 wish to mark the last exhibit?

41 MR. McDADE: Yes, please.

42 MR. WALLACE: That was Tab 25.

43 THE REGISTRAR: It will be marked as 639.  
44

45 EXHIBIT 639: Proposed 2010 DFO Funded  
46 Genomics Research Relating to Sockeye  
47 Declines, April 23, 2010, Kristi Miller

1

2

MR. PROWSE: Yes, D.C. Prowse, Mr. Commissioner. I'm here on behalf of the Province and I suspect that I may free up some time for those who are following me.

3

4

5

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7

CROSS-EXAMINATION BY MR. PROWSE:

8

9

Q Dr. Richards, you got a Ph.D. in 1982, I think is what your c.v. tell us; is that right?

10

11

A Yes, that's correct.

12

13

Q And what was it that led you to have an interest in this field?

14

15

A In the whole field of marine science? Well, it was probably Jacques Cousteau when I was a child.

16

17

Q All right. And you then pursued that interest with the Department of Fisheries and Oceans?

18

19

A Yes, that's correct.

20

21

Q And your c.v. tells us that you got three promotions. And then in 1997/1998, you made the fateful step into management. So first of all, I think your c.v. indicates you'd done something like 40 research papers?

22

23

A Yeah, in the --

24

25

Q Participated in them?

26

27

A I should say those were papers that were in the peer-reviewed literature.

28

29

Q I see. So that doesn't include others that were internal or...?

30

31

A That's correct.

32

33

Q So what was it that led you to abandon -- abandon's not the right word because you're still doing some papers -- but why did you make the leap into management?

34

35

A Well, I mean I think it happens usually -- things happen in a career because of where you are in the place at the time and it's sort of a logical next step. But I think we're also -- it's something that I care about and I think it was a -- I appreciated the opportunity to work with such an incredible group of researchers that we have in the Department. And I considered it a real privilege.

36

37

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Q And what have been the challenges and rewards since you've been a manager in DFO Science?

44

45

46

47

A Well, I think clearly, as I mentioned, the challenge -- the rewards are working with such an

- 1           incredible group of people, having such  
2           interesting scientific problems and being able to  
3           work with people who are really world-class in the  
4           field.
- 5           Q    A miscellaneous question, if I might. Earlier in  
6           the week, we marked as an exhibit part of some  
7           work that was done by Dr. Selbie. Can you tell me  
8           anything about his background?
- 9           A    He's a relatively new researcher in the Department  
10          and he's just -- he's been here for just a couple  
11          of years.
- 12          Q    All right.
- 13          A    I believe his background is to be more in the  
14          freshwater research. He's working out of our lab  
15          at Cultus Lake.
- 16          Q    And Dr. Miller, what can you tell us about her  
17          background?
- 18          A    Yes, Dr. Miller has been with the Department for  
19          quite sometime. She came here initially as a  
20          post-doctoral fellow, was working within the stock  
21          ID genetics group, was really working mostly on  
22          genetic aspects and was, you know, quite  
23          instrumental in developing some of the technology  
24          and moving forward some of the technology around  
25          genomics.
- 26          Q    And have you worked directly with her during her  
27          career?
- 28          A    No, I have not worked directly scientifically with  
29          her.
- 30          Q    All right. You've indicated that you're a  
31          supporter of her research; is that correct?
- 32          A    I mean absolutely, yes. I mean I'm a supporter of  
33          most of the research that we do.
- 34          Q    And earlier, I guess last week when Dr. Hinch was  
35          testifying, we marked as an exhibit her January  
36          2011 article in *Science*?
- 37          A    Yes.
- 38          Q    And what role, if any, did the Department play  
39          leading up to the publication of that article?
- 40          A    Role in -- I mean in the sense of I think we were  
41          trying to be very supportive of her getting this  
42          work done. I know *Science* is a high-profile  
43          journal. We like it when our scientists are able  
44          to have that kind of a profile and that kind of  
45          publication.
- 46          Q    And what's the benefit to the Department and to  
47          the public of getting such an article published in

- 1 that publication or a publication like that?  
2 A Well, I'm not sure to what extent I can speak  
3 about benefit to the public but I think that it is  
4 -- certainly that journal is seen as an indication  
5 of status and it certainly is good for the  
6 individual researchers in terms of their own  
7 research career.  
8 Q In speaking to my friend, Mr. McDade, earlier, you  
9 talked about certain writings that were not peer-  
10 reviewed. And what's the importance of that in  
11 the science process?  
12 A I mean I think the importance of peer review is  
13 really a challenge function, a bit of a sober  
14 second look, making sure that things are situated  
15 correctly and not misconstrued or just not  
16 inaccurate or taken out of context.  
17 Q And Mr. Taylor, in reviewing the -- I think it was  
18 the in-house September 2009, the one with all the  
19 attachments, pointed out that many of these  
20 statements in that -- in the various papers there,  
21 generally had changed and some have been  
22 superceded; is that right?  
23 A Yes, yes.  
24 Q And there have been changes in the work of --  
25 A Yes.  
26 Q -- Dr. Miller included in that?  
27 A That's correct. I mean I think what you're  
28 witnessing here, here through this process, is  
29 really about an evolution of the thinking around a  
30 very significant problem.  
31 Q And part of the scientific process is  
32 brainstorming and considering all kinds of  
33 possibilities and narrowing those down; is that  
34 right?  
35 A Absolutely, yes.  
36 Q And that's an ongoing process?  
37 A Yes.  
38 Q Many of us in the legal profession and elsewhere  
39 are anxious to achieve instant results. I think  
40 you've said to Mr. Taylor again this morning that  
41 instant science is not something that can happen.  
42 A Yeah. We all wish it could happen much faster  
43 than it actually can.  
44 Q And with respect to the research that was done by  
45 Dr. Miller, there's some sampling that was done in  
46 2006 but analysis and research was being done in  
47 2008 and 2009; is that right?

Laura Richards

Cross-exam by Mr. McDade (AQUA)

Cross-exam by Mr. Leadem (CONSERV)

1 A Yes, well, what happens is often when we're doing  
2 work, we will collect samples that we don't have  
3 time or aren't analyzed for one particular thing  
4 at a particular time. Those samples will be  
5 archived and then they can be drawn on at a later  
6 time to do more analyses or a different set of  
7 analyses when different questions come to mind.

8 Q And with respect to the question of the Miller  
9 paper, we've had -- the 2010 returns have come out  
10 between the time of her research and the briefing  
11 notes in 2009 and the publication in 2011. Have  
12 you been party to any discussions about how the  
13 2010 returns might be taken into account in terms  
14 of the work that she has done?

15 A I think I am not -- I think that should be a  
16 question that if you have an opportunity to speak  
17 to her about, I'd rather she speak to that  
18 directly.

19 MR. PROWSE: And indeed I think that we'll all have the  
20 opportunity to do that. Those are my questions,  
21 Mr. Commissioner.

22 THE COMMISSIONER: Thank you.

23 MR. WALLACE: Thank you, Mr. Commissioner. I think  
24 that as we're proceeding, a five-minute break  
25 would not run us over four o'clock and I think the  
26 witness may like a break.

27 THE COMMISSIONER: Is that so, Dr. Richards? Would you  
28 like a break now?

29 A Yes, please. Thank you.

30 THE COMMISSIONER: Yes, very well, thank you.

31 THE REGISTRAR: The hearing will now recess for five  
32 minutes.

33

34 (PROCEEDINGS ADJOURNED FOR AFTERNOON RECESS)

35 (PROCEEDINGS RECONVENED)

36

37 THE REGISTRAR: The hearing is now resumed.

38 MR. LEADEM: Thank you, Mr. Commissioner. For the  
39 record, Leadem, initial T., appearing as counsel  
40 for the Conservation Coalition.

41

42 CROSS-EXAMINATION BY MR. LEADEM:

43

44 Q I've spoken with you before, Dr. Richards. You  
45 may recollect that on November 3rd and 4th you  
46 were in attendance and I had the privilege to  
47 cross-examine you at that time on different

- 1 topics. And I may find that I may revisit some of  
2 those same topics with you today.
- 3 You're the Regional Director and Head of  
4 Science for the Pacific Region; as I understand  
5 it.
- 6 A Yes, that's correct.
- 7 Q And you have a number of scientists who report to  
8 you?
- 9 A Yes.
- 10 Q You in turn report to the Regional Director  
11 General?
- 12 A That's correct.
- 13 Q And you also -- do you also report to the  
14 Assistant Deputy Minister for Science, Dr.  
15 Mithani?
- 16 A We have a somewhat complex matrix organization, so  
17 I have a line reporting relationship to the  
18 Regional Director General. I have a functional  
19 reporting relationship to the Assistant Deputy  
20 Minister, but the name has changed, it's Oceans  
21 and Science. That name change occurred roughly a  
22 year ago.
- 23 Q All right. And all of you in turn report to the  
24 Minister, I mean, it's the Minister who is  
25 ultimately responsible for the operations?
- 26 A Well, the Deputy Minister, I guess that's a -- I  
27 mean, we report direct to the Deputy Minister. We  
28 are public servants.
- 29 Q Right. And from time to time you may provide  
30 advice to the Minister and the Minister is the  
31 entity that's responsible for answering for your  
32 actions in the confines of Parliament; is that  
33 right?
- 34 A Yes, as far as I understand, parliamentary  
35 democracy, yes.
- 36 Q Which is all perplexing to me, because the  
37 speeches that I'm going to get to in a moment are  
38 all written on behalf of Members of Parliament, as  
39 opposed to the Minister; is that not correct?
- 40 A You know, this whole issue around these speeches,  
41 I was really only very peripherally involved. So  
42 if you want to ask those kinds of details, I think  
43 my understanding of that is not perhaps what it  
44 could be with some others that you could ask on  
45 this topic.
- 46 Q Well, let me try it with you, and if you want to  
47 defer the questions, that's fine, and hopefully we



- 1 can find someone who can answer them in due  
2 course. And I'm going to begin by looking at the  
3 email exchange that I find at -- which is now  
4 marked as Exhibit 622, Mr. Lunn. You're familiar  
5 with this because --
- 6 A Yes.
- 7 Q -- before you came here, you reviewed all of these  
8 materials, did you not?
- 9 A Yes, that's correct.
- 10 Q And this seems to be an email exchange from a  
11 fellow by the name of Terence Davis, who is the  
12 Regional Director for Communications in your  
13 region; is that correct?
- 14 A That is correct.
- 15 Q And if I look at the second page of that email  
16 exchange, there's an email from Mr. Davis, and I  
17 find these words about the middle of the page.
- 18
- 19 Essentially, in the debate --
- 20
- 21 - and they're talking about a debate that's going  
22 to unfold or may unfold in Parliament -
- 23
- 24 -- members of the government will put forward  
25 the Department's arguments/positions/  
26 information on Pacific salmon. The MPs are  
27 essentially speaking for the Department, and  
28 representing us in the House.
- 29
- 30 Now, you know that that's inaccurate, do you not?  
31 It's not the role of MPs to defend the Department  
32 in the House, it's the role of the Minister. You  
33 know that's wrong, isn't it?
- 34 A Well, that's -- you're the legal team, that's not  
35 my area of expertise.
- 36 Q All right. But you just told me that it's not  
37 your job to advise Members of Parliament. It's  
38 your job to advise the Minister, is it not?
- 39 A Our job, my job is to provide the best information  
40 I can up through my lines of communication.
- 41 Q Right. And that includes through the ministerial  
42 lines of communication; isn't that correct?
- 43 A Up to the Minister, when I'm asked to do that,  
44 yes.
- 45 Q All right. If I could have Exhibit 630. I found  
46 this document to be very interesting. It's a  
47 document that your counsel put in through you.

1           It's entitled "Speechwriting at DFO, Roles,  
2           Responsibilities and Processes". You're familiar  
3           with this document, are you?

4       A     Actually, no, I'm not.

5       Q     You're not familiar with it, and yet your counsel  
6           put in through you?

7       MR. TAYLOR: No, I didn't. I put it in by agreement.

8       MR. LEADEM: I'm sorry, Mr. Taylor's correct. I stand  
9           corrected.

10      Q     Have you read the document before?

11      A     I'm not familiar with this document.

12      Q     So I can't ask you any questions about it. You  
13           would just decry any interest or any knowledge of  
14           the document.

15      A     Well, on this kind of topic, I think that there  
16           are others within the Department who would be  
17           better positioned to answer.

18      Q     Well, let me just put the question to you and see  
19           if you can answer it. Under the heading number 2,  
20           "House Speeches", second page. I think just  
21           scroll up a little bit more. Thank you. There's  
22           an entity known as the OPI, the Office of Primary  
23           Interest, and I find these words:

24  
25                   For every issue, motion or legislative  
26                   initiative introduced or debated in the House  
27                   and Senate...that relates to the mandate of  
28                   Fisheries and Oceans Canada, there is a  
29                   departmental OPI...

30  
31           And then in bold:

32  
33                   **Please note that HQ --**

34  
35           - I would take that to mean "Headquarters" -

36  
37                   **-- Communications is never the OPI for a**  
38                   **House speech.**

39  
40           So you're not aware of this policy and you were  
41           not aware of it at the time that you were being  
42           requested to provide information for House  
43           speeches?

44      A     I was following a request for others that I work  
45           with in the region for their assistance. Normally  
46           this kind of issue is dealt with through the  
47           national headquarters group, and not through the

1 region.  
2 Q Nonetheless you did get involved in reviewing some  
3 of these speeches that were going to be used.  
4 A I was asked, yes, I was asked to review some  
5 speeches for accuracy.  
6 Q And for example, if I could ask you to turn to  
7 Exhibit 624, there's an email, and that's the one  
8 I want to start with. This is an email from  
9 Allison Webb to yourself. It appears that Ms.  
10 Webb is the Regional Director for Policy Branch  
11 within your region; is that correct?  
12 A She was in that position at that time.  
13 Q Right. And she's asking you for commentary on the  
14 speech which is attached to that email; is that  
15 correct?  
16 A She's asking me to look at it for factual  
17 correctness.  
18 Q And then if we can turn to Exhibit 625, I find an  
19 email also from Ms. Webb in which you're copied,  
20 the central email appears to go to a person by the  
21 name of Tom Robbins. What position does he  
22 occupy, do you know?  
23 A He is a Communications Advisor within Pacific  
24 Region Communications.  
25 Q And then it also is copied, it also goes to Terry  
26 Davis, whom we've already come across him, and  
27 then it's copied to you. And Ms. Webb says:  
28  
29 This speech may be a little short now, but  
30 after speaking with Laura Richards, we had  
31 some strong concerns over some of the  
32 information contained which was not factually  
33 accurate so needed to delete it. We have  
34 redrafted. Further Laura suggested that you  
35 may be able to find some information on  
36 Alexandra Morton's website which points to  
37 some successes with respect to sea lice and  
38 pink salmon survival.  
39  
40 So this is the speech that essentially deals with  
41 sea lice, is it not?  
42 A It could be apparently, yes.  
43 Q If we could pull that, Mr. Lunn, 625, the speech  
44 that's attached, "Speaking Notes for A Member of  
45 Parliament", and if we look at page 2 of the text,  
46 for example, it talks about the aquaculture  
47 industry, and I see this paragraph:

1  
2           This is why the Government of Canada has  
3           invested \$23.5 million over five years as  
4           part of the Aquaculture Innovation and Market  
5           Access Program to help establish a vibrant  
6           and sustainable Canadian aquaculture  
7           industry...  
8

9           Are those the kind of facts that you're double-  
10          checking?

11         A    No, they would not be.

12         Q    That's because you're a Doctor of Science, not a  
13              "Doctor of Spin"; isn't that right.

14         A    Well, that particular program was not a program  
15              that was dealt with through the Science Program.

16         Q    So you're simply looking at these speeches from an  
17              aspect of commenting on the science.

18         A    That's correct.

19         Q    Is that fair to say?

20         A    Yes.

21         Q    Now, I heard your evidence earlier when you were  
22              giving your evidence to Mr. Taylor, or through Mr.  
23              Taylor, that you had some concerns about some of  
24              the scientists attending at external meetings.  
25              And as I understand your evidence, you were  
26              concerned about the messaging that might come out  
27              in light of this Commission being called into  
28              being.

29         A    No, I think that that's a misrepresentation of  
30              what I had at least intended to say. I don't have  
31              problems with scientists attending external  
32              meetings. I think what happened in this context  
33              is if there was going to be something important  
34              that was going to be something new that was going  
35              to be announced, I just wanted to make sure that I  
36              had a chance to give a head's-up through the  
37              system before that happened. I think that's one  
38              point I made. The other point was in the  
39              particular context we're discussing, we were not  
40              sure what was appropriate for our role as federal  
41              public servants in the context of a Commission of  
42              Inquiry having just been announced.

43         Q    All right. If I can examine with you Exhibit 627,  
44              please. This is an email exchange. It looks as  
45              though, if I ask you to track through to the  
46              second page, I see an email from you to Mr. Sprout  
47              in the middle of the page there. Can we just

1 highlight that and blow it up. Thank you. And  
2 which you write to Mr. Sprout on November 3, 2009:  
3

4 Paul - Do you support participation in the  
5 PSF event next week? I am concerned about  
6 how we co-ordinate all the proposed meetings  
7 on Fraser sockeye. The meeting proposed by  
8 Brian includes a number of external  
9 participants and could raise issues where we  
10 have work in progress that has not yet been  
11 reported publically.  
12

13 What are you referring to there, the work in  
14 progress that has not been reported publically.

15 A Well, I think I was mostly concerned about the  
16 work that we informed about within the briefing  
17 note related to the disease impacts.

18 Q All right. So you were concerned about that  
19 information being released publicly.

20 A I was concerned about it being released publicly  
21 prior to briefing up, which is why the note goes  
22 on to say that I have instructed them to write a  
23 briefing note so that we could do this, so that we  
24 could then proceed to talk about that work.

25 Q And as it turned out, did any of DFO scientists  
26 attend that PSF meeting?

27 A I believe in the end, I can't recall whether that  
28 meeting actually did happen at that time. But,  
29 no, as I mentioned, that was just at the time when  
30 the Commission had just been announced. We were  
31 trying to sort out what we could and couldn't do,  
32 and what was appropriate. And there was a  
33 decision. It wasn't made by me. But there was a  
34 decision that DFO staff would not participate in  
35 these types of external meetings while we're  
36 sorting out what's happening in terms of the  
37 process with this new Commission, and this was one  
38 of those external meetings.

39 Q Well, this is written before the Commission was  
40 announced, was it not? The Commission was  
41 announced on November the 6th, 2009.

42 A Okay. Well, I can't -- I'm sorry, then, perhaps  
43 there is -- we were perhaps anticipating an  
44 announcement, or there was something that was  
45 going on, but we were expecting something to be  
46 announced and therefore just uncertain about how  
47 to proceed. So that was the context.

1 Q There was a further -- there was a meeting held by  
2 academics under the auspices of Simon Fraser  
3 University, a workshop to examine the potential  
4 for decline and the 2009 returns in December of  
5 2009, do you recollect that?

6 A Yes.

7 Q And none of your scientists were permitted to  
8 attend that, were they.

9 A That's correct. That was part of the same  
10 decision that affected this suite of meetings.

11 Q Now, when I was here before with you, one of the  
12 issues that I put into evidence was a *Globe and*  
13 *Mail* article that Mr. Sprout authored. If we can  
14 have Exhibit 60, please, Mr. Lunn. This is a  
15 letter to the *Globe and Mail* from Mr. Sprout. You  
16 may recall me putting this into evidence through  
17 Mr. Sprout when he was on a panel with you and Dr.  
18 Mithani and a few other people.

19 A Yes, I recall that.

20 Q Did you have anything to do with this particular  
21 note that went to the *Globe and Mail*?

22 A I would have commented on this note.

23 Q I'll get to that in a moment. But I wonder if I  
24 can start with taking a look at -- Mr. McDade has  
25 asked me because of lack of time to put some  
26 documents to the witness. So I'm going to  
27 accommodate him in that regard, Mr. Commissioner.  
28 If I can have Tab 27 of the Aquaculture  
29 Coalition's documents, please.

30 You should have before you a Memorandum for  
31 the Minister, "Strategy to Address the Issue of  
32 Sea Lice and Salmon Farms in Pacific Region". And  
33 if you turn to the last page of it, it appears as  
34 though you may be either one of the authors or may  
35 be involved in this. There's an "A. Thomson/L.  
36 Richards", that would be yourself; is that right?

37 A That would be myself. Andy Thomson would have  
38 drafted this note.

39 Q All right. And you would have reviewed that note,  
40 would you?

41 A The normal process would have been that I would  
42 have reviewed that note.

43 MR. LEADEM: Could we have that marked as the next  
44 exhibit, please.

45 THE REGISTRAR: Exhibit 640.

46

47 EXHIBIT 640: Memorandum for the Minister,

1 Strategy to Address the Issue of Sea Lice and  
2 Salmon Farms in Pacific Region  
3

4 MR. LEADEM:

5 Q Tab 28, please. This is an email exchange from  
6 Mr. Terry Davis. We know who he is. He's the  
7 Director of Communications for your region,  
8 correct?

9 A Yes, that's correct.

10 Q And he's writing to Dr. Riddell, who at the time  
11 was -- it appears to have still been associated  
12 with the Department of Fisheries and Oceans.

13 A Yes. He would have been in -- at that time he  
14 would have been the Manager of the group that Mark  
15 Saunders now leads.

16 Q And you were copied on this note, were you not?

17 A My name is there, yes.

18 Q And do you recall this email?

19 A I must say I do pay more attention to an email,  
20 which I'm directly sent, than those that I'm just  
21 copied on. But I do recall that there was some  
22 question about what we could get in terms of  
23 various evidence from our own work on this  
24 particular topic.

25 Q Right. I'm curious about the first sentence:

26  
27 Have we done any sampling that would  
28 counteract the findings of Alexandra's  
29 sockeye research near the Discovery Islands?  
30

31 That would be Dr. Alexandra Morton's work; is that  
32 right?

33 A Yes.

34 Q Is DFO in the business of trying to counteract the  
35 work of other scientists?

36 A DFO is in the business of trying objectively to  
37 get to the truth.

38 MR. LEADEM: Could we have this marked as the next  
39 exhibit, please.

40 THE REGISTRAR: Exhibit 641.  
41

42 EXHIBIT 641: Email from Terry Davis to Brian  
43 Riddell dated January 28, 2008  
44

45 MR. LEADEM:

46 Q Tab 29, please. This is a Memorandum for the  
47 Minister entitled "New Research Results on the

1 Interactions Between Sea Lice and Juvenile Pink  
2 Salmon". Did you have a hand to play with respect  
3 to either the drafting or reviewing of this  
4 particular memorandum?

5 A Yes, I assume I did. Yes. Because the subtitle  
6 has got the note on it that these are my revisions  
7 in this document, so...

8 Q And under the "Analysis" portion there's a  
9 statement:

10 This is the first Departmental...

11 This is second page, thank you, Mr. Lunn,  
12 "Analysis":

13 This is the first Departmental confirmation  
14 of lice-induced mortality on wild salmon and  
15 will likely be used by ENGOs to support their  
16 claims that salmon aquaculture farms cause an  
17 increase in wild salmon mortality rates  
18 through the spread of sea lice.

19 That was something that you either authored or  
20 vetted, was it?

21 A I probably did not author this, but I assume from  
22 the way that this is recorded is that I did vet  
23 this. I did not get these documents in time to go  
24 back and trace my own email records on this, but I  
25 presume from what I can infer that that's correct.

26 MR. LEADEM: All right. Could this be marked as the  
27 next exhibit, please.

28 THE REGISTRAR: Exhibit 642.

29 EXHIBIT 642: Memorandum for the Minister,  
30 New Research Results on the Interactions  
31 Between Sea Lice and Juvenile Pink Salmon

32 MR. LEADEM:

33 Q Now, Tab 30, please. This is the email I was  
34 looking for with respect to the *Globe and Mail*  
35 article that I showed you earlier, or the *Globe*  
36 and *Mail* letter from Mr. Sprout. It's an email  
37 from Terry Davis dated August 19, 2009. It's sent  
38 directly to yourself from Mr. Davis, in which he  
39 says:

40 I spoke to Paul Sprout on this. He is



1                   concerned about backing away from the wording  
2                   we used in the media lines and the letter to  
3                   the editor of the Globe. The media lines  
4                   state: Sea lice from salmon farms...

5  
6                   And it goes on to basically quote from the *Globe*  
7                   and *Mail*. So you did receive this from Mr. Davis,  
8                   did you?

9                   A     Yes, I did.

10                  MR. LEADEM: Next exhibit, please.

11                  THE REGISTRAR: Do you wish to mark that document?

12                  MR. LEADEM: Yes, sorry.

13                  THE REGISTRAR: That was Tab 30, that would be 643.

14

15                                 EXHIBIT 643: Email from Terry Davis to Laura  
16                                 Richards dated August 19, 2009

17

18                  MR. WALLACE: And, yes, you have nine minutes left.

19                  MR. LEADEM: Thank you.

20                  Q     Tab 31, please, of the Aquaculture Coalition's  
21                         documents. This appears to be an email exchange  
22                         written around that same timeframe, and the first  
23                         one is an email that you wrote to Mr. Davis, which  
24                         responded to an email that he sent you the same  
25                         date. Do you recall this?

26                  A     I do not recall this specifically.

27                  Q     But you're not denying that you did in fact send  
28                         this email.

29                  A     I'm not denying that I sent the email, no, it's  
30                         clearly I sent this email.

31                  Q     The email from Mr. Davis says that:

32

33                                 Alexandra Morton has submitted a letter that  
34                                 she has written to the Minister to the  
35                                 Georgia Strait and other media outlets. It  
36                                 has been published in the Strait as well as  
37                                 in the Courier-Islander. I have written a  
38                                 possible response for your consideration, and  
39                                 would like your advice on whether we should  
40                                 respond.

41

42                                 So that's basically what you're doing there; is  
43                                 that correct?

44                  A     That's correct.

45                  MR. LEADEM: Might this be marked as the next exhibit,  
46                         please.

47                  THE REGISTRAR: Exhibit 644.

1  
2 EXHIBIT 644: Email exchange of August 19,  
3 2009 between Terry Davis and Laura Richards  
4

5 MR. LEADEM:

6 Q Now, looking back through the Memorandum to the  
7 Minister and to what was unfolding back in 2009  
8 and early 2010, around trying to explain the  
9 declines in the 2009 return, it struck me that  
10 there seemed to be almost an inordinate amount of  
11 time being spent on saying why sea lice was not  
12 necessarily the cause for the decline. Can you  
13 explain why so much attention was being focused  
14 upon sea lice back then?

15 A I think the attention that was being focused on  
16 sea lice was in response to other work that was  
17 being done in response to things, other things  
18 that were being published in the media. And, you  
19 know, that's why that was becoming apparent.

20 Q So you as a scientist were then in the business of  
21 essentially responding to media letters, letters  
22 to the editor, letters that appear in the media.  
23 And it troubles me, because when you attended  
24 earlier, some of the questions I put to you and to  
25 Dr. Mithani specifically were that scientists  
26 should be careful to insulate themselves from  
27 becoming too political, from becoming protagonist  
28 too much for either what their Department was  
29 advocating or what their Minister was advocating.  
30 Do you recall that general tenor of the discussion  
31 that I had with you and Dr. Mithani on that  
32 occasion?

33 A Yes. Yes, and I think I also need to correct  
34 exactly what you've said. It's not that I am  
35 writing; I am not writing letters to the media. I  
36 am providing factual information that is going  
37 into those letters.

38 Q But do you agree --

39 A And if there is something that's coming that is  
40 technically incorrect, or that we think is, you  
41 know, the kind of things where I might be more  
42 involved, is if there is something seen to be  
43 critical of DFO science, because I also see that I  
44 need to be supportive of our staff and our  
45 processes. So but our -- what we are trying to do  
46 is be as factually and provide the technical  
47 information, then trying to be as objective as

Laura Richards

Cross-exam by Mr. Leadem (CONSERV)

Cross-exam by Ms. Gaertner (FNC)

1 possible.

2 Q Do you agree with me that it's a very fine line  
3 between vetting an email or vetting a potential  
4 media release from Department of Fisheries and  
5 Oceans for accuracy and actually spinning that in  
6 terms of how that is going to be portrayed in the  
7 media. There's a very fine line there, is it not?

8 A I don't dispute that there are, there are lines  
9 all over this work, yes. But as I do want to  
10 emphasize is that it's important that for our  
11 perspective that Science is seen to be objective,  
12 and we try to maintain that objectivity.

13 MR. LEADEM: Thank you. Those are my questions.

14 MR. WALLACE: Thank you. Ms. Gaertner.

15 MS. GAERTNER: Pleasantly surprised. It's Brenda  
16 Gaertner for the First Nations Coalition and with  
17 me, Leah Pence.  
18

19 CROSS-EXAMINATION BY MS. GAERTNER:  
20

21 Q Dr. Richards, I have just four or five questions  
22 of you, depending on how we go from there.

23 Dr. Richards, given that Crown's obligations  
24 to First Nations, including the Department of  
25 Fisheries and Oceans, what steps have you taken,  
26 and also given the importance of Fraser River  
27 sockeye to First Nations that you're very aware  
28 of. What steps have you taken to ensure that  
29 First Nations have been provided the scientific  
30 information and work which has informed the  
31 briefing notes of December '09 and March '10, that  
32 have been the subject of discussion today?

33 A Well, I think that, you know, basically in terms  
34 of our work with First Nations, we will work  
35 through -- I will work through my colleagues and  
36 have some of this, a lot of the information is  
37 communicated through the Fraser Panel, through the  
38 Pacific Salmon Commission, where we do have First  
39 Nation representatives.

40 Q What specific steps have you taken as Regional  
41 Director of Science in the Pacific Coast --

42 A Right.

43 Q -- to make sure this information is getting to  
44 First Nations?

45 A I have supported the attendance of staff at  
46 specific meetings.

47 Q Which meetings, what staff? This is a very

- 1 serious matter, Dr. Richards. What information  
2 has been provided to First Nations regarding viral  
3 diseases and its potential impacts --
- 4 A Well, I'd say first of all --
- 5 Q -- impacts on Fraser sockeye salmon?
- 6 A Right, and I think first of all I want to be clear  
7 that we are still trying to get more information  
8 on this whole issue around the purported virus.  
9 What we're trying to do is go forward with facts,  
10 and we are still trying to work and find out what  
11 exactly is going on. That information was -- some  
12 of this information was presented, for example, at  
13 the Pacific Salmon Commission sponsored meeting.  
14 There were members of the Fraser Panel that were  
15 in attendance at that meeting.
- 16 Q So that's general information around the reports  
17 that have been provided. What -- have you told  
18 your managers that they need to bring this  
19 information to First Nations and the implications  
20 of this to their rights and the potential  
21 implications to the Fraser River sockeye?
- 22 A Well, I think at this point we're still trying to  
23 sort out what we're trying to -- we're trying to  
24 understand this issue ourselves.
- 25 Q Dr. Richards, we've heard lots of evidence in this  
26 Inquiry about uncertainties.
- 27 A Yes.
- 28 Q And how it's always difficult --
- 29 A Yes.
- 30 Q -- for scientists to come to certain outcomes. It  
31 is not scientists, we've heard from many people  
32 from the Department of Fisheries and Oceans that  
33 are --
- 34 A Yes.
- 35 Q -- that are supposed to balance those  
36 uncertainties. That's to come to those whose  
37 rights are going to be directly affected. What  
38 steps have you taken?
- 39 A Well, what I am doing is supporting my staff in  
40 various things. I know the staff are involved  
41 with others. I can't say that there are things  
42 that are directly that we are doing. We are  
43 working in general through various consultative  
44 processes that are organized by other sectors of  
45 the Department. That's the way that we normally  
46 operate.
- 47 Q You appreciate the potential devastating effect

- 1 this could have on the exercise of section 35  
2 rights by the people that have a relationship to  
3 Fraser River sockeye.
- 4 A I think this is just one piece of this overall  
5 story. What we're trying to do is understand what  
6 the story is.
- 7 Q They appreciate that there may be other pieces.  
8 This one piece could be very important to them.  
9 They did not fish in 2009.
- 10 A No.
- 11 Q What steps did you take to make sure they know  
12 about what your scientists are learning?
- 13 A Well, we're still trying to, as I mentioned, I  
14 think this story is very much still unfolding.
- 15 Q So can I take it that you haven't taken steps to  
16 make sure that they know?
- 17 A I have not taken personal steps, if that's the  
18 question is you're asking, but the work is that we  
19 -- but we have been following our normal  
20 processes. There are others in the Department who  
21 are doing those direct consultations.
- 22 Q Dr. Richards, you're also aware that many First  
23 Nations or some First Nations have informed the  
24 Department of Fisheries that they are concerned  
25 that there may be conflicts between your  
26 obligations regarding Fraser River wild sockeye  
27 salmon and aquaculture. Do you agree that given  
28 those concerns it will be incumbent upon you to  
29 make sure there are fulsome sharing of information  
30 on all of these objectives, scientific, facts  
31 that you're unfolding?
- 32 A I think it's just a question of we're trying to  
33 talk about the process here.
- 34 Q Yeah, I'm talking about process. What processes  
35 are you using and relying upon to make sure First  
36 Nations are getting this information?
- 37 A I mean, I fundamentally, I rely on working with my  
38 colleagues in the Department, who have more direct  
39 responsibility with First Nations.
- 40 Q Then I need to know what colleagues you relied  
41 upon to make sure this information was getting to  
42 First Nations in a timely manner, and where is the  
43 -- where is that?
- 44 A I think at this point we have not been, as I say,  
45 we're still trying to develop this information and  
46 that's what this Inquiry is all about.
- 47 Q But you appreciate that it's not science that's

1 going to measure -- that is going to experience  
2 the risks and uncertainties.

3 A But we also know that there are still lots of  
4 questions about this, and we're --

5 Q There will always be questions, Dr. Richards.

6 A Yes, but what we're talking about is a field that  
7 is going -- this particular piece that we're  
8 talking about is something that is a rapidly  
9 changing, rapidly getting some new information,  
10 and we're all trying to come to grips with what  
11 this means, so that we can explain it.

12 Q Dr. Richards, was Dr. Miller also told not to  
13 speak to First Nations?

14 A Not to my -- I'm not aware of any discussion on  
15 that topic.

16 Q So she was just told not to talk to the media?

17 A And I'm not aware of her -- other than in the  
18 context of this one publication.

19 Q Given the obvious importance of this work to my  
20 client's interests, and given the federal Crown's  
21 obligations to First Nations, how is it, Dr.  
22 Richards, that in response to Mr. McDade's  
23 questions today regarding the funding of this  
24 ongoing work, and as I understand the information  
25 before us, it's funding that's less than \$100,000,  
26 why is it that you couldn't come today to tell us  
27 that this work is being done?

28 A I --

29 MR. TAYLOR: Well, that's not an accurate account of  
30 the evidence. Dr. --

31 MS. GAERTNER: She has not been able to confirm that  
32 this work has been done, nor has it been funded.

33 MR. TAYLOR: Dr. Richards has said that she doesn't  
34 have specifics. Some has, she thinks, and some  
35 work is ongoing, she's testified to it, and other  
36 work she's not sure about.

37 MS. GAERTNER: Mm-hmm.

38 Q Dr. Richards --

39 A But we have, if I could, you know, what I have  
40 done is I have done everything possible that I  
41 could to make sure that Dr. Miller had funding to  
42 continue this work. Some of the things that  
43 you've looked at are proposals. I think in her  
44 own mind the importance of some of this stuff is  
45 changing and evolving. So and I wasn't able,  
46 being given the timing of when I got this  
47 information, I was not able to go and verify those

1 specific pieces. And to know, and sometimes even  
2 if we put in a proposal, the work doesn't actually  
3 transpire because of other things that happen  
4 along the way.

5 So I know that this would have had a high  
6 priority, and we would have done everything  
7 possible to provide funding to her to do this, at  
8 least for the highest priority pieces of this  
9 work. Exactly where things are, I can't -- I  
10 can't answer today.

11 Q Having reviewed the briefing materials that have  
12 been filed today, and your responses, it doesn't  
13 appear in any of the briefing materials that have  
14 been filed today that the Crown's obligations to  
15 inform First Nations about the potential impacts  
16 of something like a virus on their rights was ever  
17 a next step. Do you agree with me?

18 A That would not have been something that would have  
19 thought, or that I would have put in, because  
20 that, well, what we're trying to do is get at the  
21 scientific evidence. So I would have --

22 Q But you're giving advice to the Ministers on what  
23 next steps need to be taken, given the information  
24 that you're --

25 A From the point of view of Science within the  
26 Department.

27 Q But you appreciate as the Regional Director of  
28 Science that this information could have very  
29 strong impacts on First Nations rights.

30 A Well, and you know, I think it can have impacts on  
31 others, too - I don't dispute what you're saying -  
32 that, yes. But again we're trying to make sure  
33 that we can move forward and get more -- we're  
34 trying to work with the information that we had.  
35 You know, my job is to inform up the line as a  
36 first step.

37 Q Perhaps just one final general question, then, Mr.  
38 Commissioner. As a Regional Director of Science,  
39 when you're considering and making decisions  
40 regarding the research you're going to do, the  
41 next steps you're going to take, all of those  
42 things, do you consider the Crown's obligations to  
43 First Nations?

44 A That's generally not at the forefront. That would  
45 be certainly -- that would come into play in some  
46 pieces of the work we do. We have a very large  
47 Science program. It would certainly come into

1 play on some of the stock assessment work that we  
2 do and, as I say, we work with others and consult  
3 with others in the Department who are probably  
4 working more closely on some of these files.

5 Q But for some reason it didn't come to play when  
6 you were looking at the causes, one of the primary  
7 causes of decline in 2009, when Fraser First  
8 Nations were not fishing?

9 A In our job, you know, I'm looking at my job as to  
10 try to find the Science advice that I can pass  
11 over to then others in the Department who are more  
12 active in some of these other consultative issues  
13 that you mention.

14 Q But you didn't advise the Minister that he should  
15 take steps to inform First Nations?

16 A My recommendations were based on the science of  
17 what we should be doing, and following to the best  
18 of my knowledge in trying to update next steps on  
19 the science.

20 MS. GAERTNER: Those are my questions, Mr.  
21 Commissioner.

22 MR. WALLACE: Thank you, Ms. Gaertner.

23 Mr. Commissioner, those are all the  
24 questioners in cross-examination. Mr. Taylor  
25 informs me he has three questions in re-  
26 examination. I have two, and if I might just say  
27 at this point, Mr. Commissioner, I would like to  
28 thank all counsel for working so hard to make this  
29 work out today.

30 THE COMMISSIONER: Yes, I would like to add to that,  
31 Mr. Wallace. The counsel throughout have been  
32 gracious in accommodating the Commission counsel's  
33 request for time limits, and I'm personally  
34 grateful to all of them for being so cooperative.  
35 I just have one question I just want to ask Dr.  
36 Richards, if you don't mind, and then maybe Mr.  
37 Taylor will follow up.

38

39 QUESTIONS BY THE COMMISSIONER:

40

41 Q Dr. Richards, in fairness to you, I don't have a  
42 transcript in front of me so I'm not trying to put  
43 words in your mouth. But my question is this. I  
44 think I recall, I did make a note, but it wasn't  
45 verbatim, that in an answer to, I think it was Mr.  
46 McDade - I'm doing a lot of thinking here because  
47 I don't have the transcript in front of me - I



Laura Richards

Questions by the Commissioner

Cross-exam by Mr. Taylor (cont'd) (CAN)

1 believe it was Mr. McDade, in reference to a  
2 position or an opinion that had been expressed by  
3 Dr. Miller. I think you used the words "that was  
4 her personal opinion" or "personal view", or  
5 something like that, and I apologize to you for  
6 not having the exact words. I'm not sure I quite  
7 followed that. Were you suggesting that she did  
8 something on her personal time, or did you mean --  
9 I'm not sure exactly what you meant by that.

10 A No, what I meant was that -- sorry. Yes, Mr.  
11 Commissioner, what I meant was that this was work,  
12 I mean, obviously the work that she's doing is  
13 really very much on the cutting edge, and what she  
14 was doing was really doing some speculations on  
15 her part, which is part of the normal scientific  
16 process and the way that Science operates. But I  
17 think others within the group, or other fish  
18 health experts may have had some different points  
19 of view than that. So what I was trying to infer  
20 was that those were -- that was her view at the  
21 time.

22 Q Mm-hmm.

23 A It wasn't necessarily shared by everyone else in  
24 the group.

25 Q Thank you very much.

26 A And part of my job was to try to then balance some  
27 different points of view.

28 THE COMMISSIONER: Thank you very much. Mr. Taylor.

29 MR. TAYLOR: I had three questions when Mr. Wallace  
30 asked me about two o'clock. But it's now almost  
31 four o'clock, so I've found a couple more.

32

33 CROSS-EXAMINATION BY MR. TAYLOR, continuing:

34

35 Q Dr. Richards, as I heard the questioning from Mr.  
36 McDade, there was a certain undercurrent to them  
37 that was suggesting that Science should hurry  
38 along, particularly with regard to the viral  
39 disease that has been postulated. Can Science go  
40 any faster than the research and facts will allow?

41 A I mean, we would very much like this to be sped  
42 along, and we have been trying to very much  
43 encourage this work to move forward. But this is,  
44 I mean, basically this is a very challenging topic  
45 and it's difficult. And so I think we've been  
46 moving on this as quickly as we can.

47 Q There seemed to be another undercurrent to Mr.

- 1 McDade's questions that DFO is not forthcoming on  
2 the risks of disease and/or underplays the risk.  
3 What's your response to that?
- 4 A Well, I think we have been upfront in putting some  
5 of these factors in the notes that we were  
6 preparing. We have certainly have been talking  
7 about these in some other forums and some other  
8 meetings. But certainly we have been encouraging  
9 development and trying to get forward the full  
10 story on what's actually going on, and this is a  
11 story that's still developing.
- 12 Q There is now Exhibit 640, which is a document that  
13 perhaps Mr. Lunn could bring up to refresh your  
14 memory. It comes from Tab 27 of the Aquaculture  
15 documents. This is a briefing note. You may need  
16 to see more pages there, but can you determine  
17 from that whether it's a draft or a final version?
- 18 A That would have -- I am assuming that would have  
19 been a draft version.
- 20 Q Mr. Leadem suggested in his questions to you that  
21 as a scientist, or as a scientist and as the Head  
22 of Science Branch, that there was an element of  
23 becoming political or a protagonist in providing  
24 input to media lines. Is the work that you do  
25 that is subject of today's evidence regarding  
26 media lines and/or providing input to potential  
27 speeches, for that matter, a small or a large  
28 portion of your work as a scientist and as the  
29 Head of Science Branch?
- 30 A I think it's a relatively small portion of the  
31 work that we actually do, that I actually do.
- 32 Q Is it the case nonetheless that in the context of  
33 a government Department, in particular a  
34 Department like Fisheries, which is science-based,  
35 that it is something that needs to be done in the  
36 course of your work, that is to say, Science needs  
37 to provide input to media lines when requested,  
38 and speeches, for that matter.
- 39 A Well, certainly what we need to do is make sure if  
40 we have factual information that it is known, and  
41 to try to contribute, and there are various ways  
42 that we do that. This is one way. Probably  
43 another way is something we also discussed  
44 earlier, which would be through our CSAS process,  
45 the centre for Science advice, and that would be a  
46 more formal way that we would provide advice into  
47 the Department.

Laura Richards

Cross-exam by Mr. Taylor (cont'd) (CAN)

Re-exam by Mr. Wallace

1 Q Ms. Gaertner asked you questions about what DFO,  
2 or more particularly the Science Branch did or  
3 didn't say or inform First Nations of about  
4 information. I was never clear from her questions  
5 what information precisely we're talking about,  
6 but nonetheless it's in the context of disease.  
7 My question of you is do you know whether First  
8 Nations have science advisors?

9 A In some cases that they do. In other cases they  
10 do not. So there is a bit of a mixture within the  
11 organizations.

12 Q And do scientists talk to scientists?

13 A Absolutely they do.

14 Q And share information?

15 A Yes.

16 Q And does that include DFO scientists talking to  
17 First Nation-retained scientists?

18 A Where that opportunity exists, yes, absolutely.

19 MR. TAYLOR: Thank you.

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

21

22 RE-EXAMINATION BY MR. WALLACE:

23

24 Q Dr. Richards, I just have two questions about two  
25 documents. I wonder, Mr. Lunn if you could pull  
26 up Exhibit 615, which, Dr. Richards, you'll find  
27 at Tab 4 in the binder that the Commission  
28 provided you this morning. Mr. McDade asked you  
29 about that document, about the early version of  
30 the factors causing decline, briefing notes. And  
31 in your evidence in responding to some of his  
32 questions about that memo, you said that those  
33 early statements were those of Mark Saunders, and  
34 they were Mark Saunders' views and not yours. I'm  
35 looking at the email that is at the first page of  
36 Tab 4, and I'm just -- it says here in Mr.  
37 Saunders' email to you:

38

39 Hi Laura,

40

41 Still needs summary bullets. Hopefully this  
42 is closer. Could easily move the  
43 hypotheses...

44

45 And so on. That suggests to me that the version  
46 of the briefing note attached was produced by Mr.  
47 Saunders in response to a question from you, and

1 that the bullets that Mr. McDade took you to in  
2 that Mr. Saunders was trying to reflect what you  
3 had asked him to reflect; is that fair?

4 A I think, no. I think certainly Mr. Saunders was  
5 the one who did the drafting of these notes. I  
6 think I would have perhaps discussed with him an  
7 overall approach about -- but a lot of the way  
8 that this was formulated was really the thinking  
9 of Mr. Saunders.

10 Q Do you recall what it was that you asked him to do  
11 in producing this memo and those bullets?

12 A I'm sorry, but, no, I don't recall that specific  
13 discussion. I think one of the things we were  
14 talking about was just in terms of how to organize  
15 the material to make it as clear as possible in  
16 going forward. I think the way that this was sort  
17 of organized in terms of the magnitude of the  
18 impact was one of the pieces we were hoping to  
19 help bring some clarity to a very confusing and  
20 potentially complex issue.

21 Q Thank you. The second question I have at this  
22 point is with respect to Exhibit 643, which is Tab  
23 29 of the Aquaculture Coalition documents. And in  
24 that, your evidence was in response to Mr. Leadem  
25 -- could you pull up 642, I think I had the wrong  
26 number. Thank you, it's 642. Sorry, I was wrong,  
27 Dr. Richards, it's 642.

28 And in answer to a question from Mr. Leadem  
29 you said you weren't sure if you were involved as  
30 a drafter. Well, we have the benefit of  
31 technology here that you don't have in front of  
32 you, and I wonder if, Mr. Lunn, you could pull up  
33 the reference from our documents that we gave to  
34 you before, CAN286996. And this appears to be, or  
35 this is the email that was covering the document  
36 which is now 642. And I'm wondering if that just  
37 perhaps refreshes your memory that you appear to  
38 have been involved in drafting that document.

39 A Sorry, if you had heard that I said I wasn't, I  
40 think that was incorrect.

41 Q No, no, no, you didn't say, you didn't deny it,  
42 you said you didn't know.

43 A Well, I was just saying, I was looking at the name  
44 attached to the file, which suggests that I did do  
45 it, because that was the way that I would have  
46 named a file. So therefore I did touch that  
47 document.

1 Q Yes, all right. I just wanted to make the record  
2 clear --

3 A Yes.

4 Q -- as to that, and this I think does so. I  
5 wonder, Mr. --

6 MR. TAYLOR: I think in fairness to the witness, she  
7 specifically pointed in her evidence in answer to  
8 whatever lawyer was asking the question, to the  
9 note at the bottom about "L. Richards rev".

10 MR. WALLACE: I agree. And this is, I am producing  
11 this as a covering -- is that the one? The  
12 covering email, in any event, it's the cover  
13 email, and I would ask, Mr. Lunn, that that be  
14 marked as 642A.

15 THE REGISTRAR: It will be so marked.

16  
17 EXHIBIT 642A: Cover email from Brian Riddell  
18 to Laura Richards re Sea Lice Management  
19 briefing notes  
20

21 MR. WALLACE: Mr. Commissioner, I have no further  
22 questions. Dr. Richards, thank you very much for  
23 your attendance here today.

24 THE COMMISSIONER: Yes, Dr. Richards, may I also thank  
25 you for your willingness to return today, and  
26 answering the questions of all counsel who have  
27 put questions to you. Thank you very much.

28 And to all other counsel, as you know, we are  
29 adjourned after -- did Mr. Taylor have another  
30 question? No, he just looks questionable.

31 MR. TAYLOR: I'm just slow in finding CAN numbers, tabs  
32 and exhibits.

33 THE COMMISSIONER: Sorry, I thought you had another  
34 question.

35 As you know, we're adjourned now, I think  
36 it's until April 4th, Monday April 4th. And so as  
37 my grandchildren call it "spring break". I don't  
38 know what you call it. When our teachers used to  
39 tell us that, there was a collective "Hooray" in  
40 the room, and so I'm sure silently there's a  
41 collective "Hooray" in this room as well. But I  
42 wish you a well spent, hopefully a little bit of  
43 relaxation time over the next couple of weeks, as  
44 we gear up for the balance of our hearings. And I  
45 thank you all again. As Mr. Wallace said, many of  
46 you have been here most days. Some of you have  
47 not been, but there has been a great degree of

1 cooperation and I'm always grateful when counsel  
2 are able to do that. It makes my work and  
3 hopefully your work more pleasant and more  
4 efficient.

5 I'm sorry, Mr. Giles, did you -- oh, Mr.  
6 Giles, who keeps a record of this apparently,  
7 tells me we're at day 58, Exhibit 44. We have  
8 heard, I think, 70 witnesses. I'm not sure what  
9 the recalled is, is that 38 recalled?

10 THE REGISTRAR: Thirty-eight recalled with a break in  
11 between.

12 THE COMMISSIONER: Ah, I see. So for those of you who  
13 don't have enough data and statistics in front of  
14 you, you can add this to your body of information.

15 Thank you all very much again, and enjoy your  
16 break.

17 THE REGISTRAR: The hearing is now adjourned till  
18 Monday, April the 4th at 10:00 a.m.

19  
20 (PROCEEDINGS ADJOURNED AT 3:57 P.M. TO APRIL  
21 4, 2011 AT 10:00 A.M.)  
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1 I HEREBY CERTIFY the foregoing to be a true  
2 and accurate transcript of the evidence  
3 recorded on a sound recording apparatus,  
4 transcribed to the best of my skill and  
5 ability, and in accordance with applicable  
6 standards.

7  
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10 \_\_\_\_\_  
11 Karen Hefferland

12  
13 I HEREBY CERTIFY the foregoing to be a true  
14 and accurate transcript of the evidence  
15 recorded on a sound recording apparatus,  
16 transcribed to the best of my skill and  
17 ability, and in accordance with applicable  
18 standards.

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22 Susan Osborne

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

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34 Karen Acaster

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

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46 Pat Neumann  
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