

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, September 8, 2011

**Tenue à :**

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

le jeudi 8 septembre 2011



### Errata for the Transcript of Hearings on September 8, 2011

Page	Line	Error	Correction
102	19	well	while

## **APPEARANCES / COMPARUTIONS**

Brock Martland Kathy L. Grant	Associate Commission Counsel Junior Commission Counsel
Mitchell Taylor, Q.C. Jonah Spiegelman	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")
Alan Blair 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. Judah Harrison	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")
Katrina Pacey	Area D Salmon Gillnet Association; Area B Harvest Committee (Seine) ("GILLFSC")

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

Phil Eidsvik	Southern Area E Gillnetters Assn. B.C. Fisheries Survival Coalition ("SGAHC")
No appearance	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	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.**

Tim Dickson	Sto:lo Tribal Council Cheam Indian Band ("STCCIB")
No appearance	Laich-kwil-tach Treaty Society Chief Harold Sewid, Aboriginal Aquaculture Association ("LJHAH")
Krista Robertson	Musgamagw Tsawataineuk Tribal Council ("MTTC")
Benjamin Ralston Lisa Fong	Heiltsuk Tribal Council ("HTC")

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2 (C.-B.)  
3 September 8, 2011/le 8  
4 Septembre 2011  
5

6 THE REGISTRAR: The hearing is now resumed.  
7

8 CATHERINE STEWART, recalled.  
9

10 ALEXANDRA MORTON, recalled.  
11

12 CLARE BACKMAN, recalled.  
13

14 MIA PARKER, recalled.  
15

16 MR. MARTLAND: Mr. Commissioner, Brock Martland  
17 appearing as Commission counsel with Cathy Grant.  
18 An issue arose overnight, indeed this morning,  
19 that I'd like to address briefly before Mr. McDade  
20 resumes.

21 Through our witness preparation meetings, and  
22 again on a number of occasions yesterday, I  
23 reminded the witnesses on this panel of the  
24 requirement not to speak about their evidence with  
25 anyone, including their own counsel and including  
26 other witnesses on the panel. Ms. Morton last  
27 night sent an email relating to the evidence to  
28 Mr. Backman, who did not reply. There is also a  
29 blog posting that I gather Ms. Morton put up, that  
30 again engages with and discusses the evidence. I  
31 simply look to alert you and participants to the  
32 fact, no doubt you'll hear about it through  
33 questions today.

34 Mr. McDade is next with 15 minutes remaining.  
35 Thank you.  
36

37 CROSS-EXAMINATION BY MR. McDADE, continuing:  
38

39 Q Mr. Commissioner, I just want to complete the  
40 final eight documents that I wish to enter as  
41 exhibits. Could we have 67 on the screen. These  
42 are documents that are referenced in Dr. Morton's  
43 report. This is the report you're referring to in  
44 your report, Dr. Morton?

45 MS. MORTON: Yes, that's correct.

46 MR. McDADE: Mark that as an exhibit, please.

47 THE REGISTRAR: Exhibit 1822.

2

PANEL NO. 62

Cross-exam by Mr. McDade (AQUA) (cont'd)

1 EXHIBIT 1822: BC Ministry of Agriculture and  
2 Lands Memorandum, Report from Meetings with  
3 Mainstream Re: occurrence of *Piscirickettisa*  
4 *salmonis* at sites in Broughton, January 3,  
5 2006  
6

7 MR. McDADE:

8 Q Tab 71, this is a draft report by Dr. Hargreaves  
9 you referred to in your report, yes?

10 MS. MORTON: Yes, it is, he found similar clusters of  
11 lice than the rest of us at the farms.

12 MR. McDADE: The next exhibit, please.

13 THE REGISTRAR: Exhibit 1823.  
14

15 EXHIBIT 1823: Palermo and Hargreaves,  
16 Detection and distribution of significant  
17 clusters of Sea Lice (*Lepeophthericus*  
18 *salmonis* and *Caligus* sp.) infestation from  
19 samples of juvenile salmon and stickleback in  
20 the Broughton Archipelago, Knight Inlet, B.C.  
21 2003-2006 using a spatial scan statistic  
22 (SaTScan™) DRAFT, April 27, 2005  
23

24 MR. McDADE: Tab 78, an email from Terry Davis dated  
25 August 19th, 2009. Can I ask that be the next  
26 exhibit.

27 THE REGISTRAR: Exhibit 1824.  
28

29 EXHIBIT 1824: Email string between Terry  
30 Davis, Lara Sloan and others re "Brian  
31 Riddell article", August 19, 2009  
32

33 MR. McDADE: Tab 82, an email from Dr. Hargreaves dated  
34 October 16, 2009, Exhibit 1825, please?

35 THE REGISTRAR: Exhibit 1825.  
36

37 EXHIBIT 1825: Email string between Brent  
38 Hargreaves, Andrew Thomson and others re  
39 "Favour Lice", from September 30, 2009 to  
40 October 16, 2009  
41

42 MR. TAYLOR: Is the map in the exhibit, Mr. McDade?  
43 There's a map referred to in the email, is it  
44 there?

45 MR. McDADE: I don't know. Apparently not.

46 The next document is Tab 83, an email to Dr.  
47 Hargreaves dated October 23rd, 2009. Next

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3  
PANEL NO. 62  
Cross-exam by Mr. McDade (AQUA) (cont'd)

1 exhibit, please.

2 THE REGISTRAR: Exhibit 1826.

3

4 EXHIBIT 1826: Email string between March  
5 Klaver, Andrew Thomson and others re "Sea  
6 lice data request for industry", from October  
7 1, 2009 to October 23, 2009

8

9 MR. McDADE: Tab 84, an email from Dave Gillis of DFO  
10 dated October 26, 2009. Next exhibit, please.

11 THE REGISTRAR: Exhibit 1827.

12

13 EXHIBIT 1827: Email string between Dave  
14 Gillis, Robert Elliott and others re "Qs and  
15 As for meeting with the FCC on Oct. 29",  
16 October 26, 2009

17

18 MR. McDADE: Tab 85, an email from Dr. Beamish, dated  
19 October 26, 2009. Next exhibit, please.

20 THE REGISTRAR: Exhibit 1828.

21

22 EXHIBIT 1828: Email from Richard Beamish to  
23 Mark Saunders re "Harrison Sockeye", October  
24 26, 2009

25

26 MR. McDADE: And Tab 86, an email from Dr. Hargreaves  
27 dated January 27th, 2010.

28 THE REGISTRAR: Exhibit 1829.

29

30 EXHIBIT 1829: Email from Brent Hargreaves to  
31 Mark Saunders re "Latest version of Fraser  
32 sockeye work plan", January 27, 2010

33

34 MR. McDADE: And the final one then, Tab 93, an email  
35 from Joanne Power, dated December 1, 2009.

36 THE REGISTRAR: Exhibit 1830.

37

38 EXHIBIT 1830: Email string between Joanne  
39 Power, Brian Riddell and others re "A.  
40 Morton's comment on egg imports", from  
41 November 30, 2009 to December 1, 2009

42

43 MR. McDADE: Thank you. That, I think, Mr.  
44 Commissioner, concludes the exhibits that are  
45 referenced in Dr. Morton's report. Can I have  
46 Exhibit XX for identification on the screen,  
47 please.

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- 1 Q Dr. Morton, I understand you prepared this  
2 document from the source data that have now been  
3 exhibits, and it's a graph showing -- just simply  
4 showing the mortalities as listed by Dr. Korman,  
5 but broken down for Area 3, the Inside Passage.  
6 MS. MORTON: That's correct. And there is an error, as  
7 has been pointed out, the 2007, the first four  
8 should read 2006 and I have made that correction.  
9 Q But the -- that's a typographical error. The data  
10 that you entered was the data from 2006?  
11 MS. MORTON: That's correct, the data is correct, and  
12 it shows a large spike in mortalities in the  
13 Marine Harvest farms, while the sockeye that went  
14 missing in 2009 were going to sea.  
15 Q And this is the evidence you were referring to,  
16 Mr. Backman?  
17 MR. BACKMAN: I think I should make a comment here.  
18 Q Yes.  
19 MR. BACKMAN: I referred to this yesterday in my  
20 testimony, that that large spike actually occurs  
21 at the end of 2006.  
22 Q Yes.  
23 MR. BACKMAN: And I didn't find a large spike when I  
24 looked into our own data. I found it was related  
25 to mortalities on the farm sites related to  
26 phytoplankton, and it occurred in the later part  
27 of 2006, not in early 2007.  
28 Q So you're saying those 800,000 fish are a result  
29 of phytoplankton? That's your evidence?  
30 MR. BACKMAN: I'm saying that the information that I  
31 brought forward yesterday showing mortalities for  
32 Marine Harvest later in 2006 was a result of  
33 phytoplankton blooms, and not in the -- in the  
34 area of Discovery Islands, yes.  
35 Q So that's -- but you're not quarrelling with the  
36 numbers there. That's just your explanation for  
37 it?  
38 MR. BACKMAN: I also found nothing in the order of  
39 800,000.  
40 Q So you can't -- if the numbers are 800,000, you  
41 don't have an explanation for that?  
42 MR. BACKMAN: I don't have an explanation for the  
43 800,000 number. No.  
44 Q All right, thank you.  
45 MR. BLAIR: Mr. Commissioner, I'd like to object. My  
46 friend is putting a graph that was prepared by  
47 somebody who is not a fish health professional.

1 I'll be objecting to it if it's going to be marked  
2 as an exhibit. Suggesting that Mr. Backman ought  
3 to adopt this number, he's clearly indicated that  
4 he doesn't do that. So to suggest that he should  
5 adopt it or to try to enter it as an exhibit would  
6 be inappropriate, considering it's prepared by Ms.  
7 Morton, who is not a fish health professional, who  
8 apparently interprets the data and comes up with  
9 these numbers. So perhaps I'm anticipating my  
10 friend seeking to have it marked as an exhibit,  
11 but those are my objections. Thank you.

12 And for the record, Alan Blair, for the B.C.  
13 Salmon Farmers Association.

14 MR. McDADE: It's already in as an exhibit for  
15 identification, Mr. Commissioner, as XX and has  
16 been for some time. So I'm not pushing beyond  
17 that.

18 Q Can we next have Exhibit 1563 on the screen. Now,  
19 as I understand it, this is a map prepared by  
20 Living Oceans showing the fish farms in the  
21 Discovery Islands area. And you'll see there are  
22 nine farms with blue circles around them, which  
23 are said to be in what's called the "wild salmon  
24 narrows". How many of those are your farms, or  
25 the farms of your company, Mr. Backman?

26 MR. BACKMAN: With the blue circles around them, there  
27 are six.

28 Q Six of the -- six of the nine. Now, those have  
29 been identified, as I understand it, by Living  
30 Oceans as being farms of particular importance in  
31 terms of the interactions with wild salmon; is  
32 that right, Ms. Stewart?

33 MS. STEWART: Yes, we prioritized those farms in order  
34 to try to clear one migratory route through the  
35 Discovery Islands for wild salmon.

36 Q So, Dr. Morton, is the confined or the narrower  
37 passage here of the migratory route a particular  
38 concern for you?

39 MS. MORTON: It is. When I first contacted Norwegian  
40 scientists about sea lice, they made -- they  
41 raised this point right away. Dr. Jens Christian  
42 Holst said, "You can have good years and bad  
43 years, and in the end you won't have wild salmon."  
44 It is, I mean, it's fairly logical to think that  
45 if you have a dispersion of viral particles, or  
46 parasite eggs, or juveniles into a small body of  
47 water, that there will be a higher density in

1 exposure to the wild salmon than in larger waters  
2 where the dispersion would be much greater.

3 Q What can you say about the flushing rates or the  
4 tidal rates in that area?

5 MS. MORTON: Well, I'm not from this area, but in the  
6 Broughton Archipelago and the Institute of Ocean  
7 Sciences came up with this, a particle can go ten  
8 kilometres in six hours. And for those of us who  
9 heat their houses with wood, as the logs float  
10 around we have a high understanding of where  
11 things will go, or boats that drift away. So the  
12 movement is enormous. When I hear that there's a  
13 precautionary principle to keep farms one  
14 kilometre from a stream, biologically that's  
15 highly insignificant. It really doesn't mean  
16 anything.

17 So these waters have much greater tidal flow  
18 than in the Broughton Archipelago. We saw Kyle  
19 Garver's work, how if a farm has a 30 percent loss  
20 from an epidemic, that there will be 60 billion  
21 particles, viral particles shed per hour, and a  
22 complete clogging of the channel was what his  
23 image showed.

24 Q So, Dr. Morton, you've reviewed the **CEAA**  
25 screenings for these -- for some of these farms,  
26 and you've reviewed matters in Ringtail. Is it  
27 fair to say that the fact that these farms were on  
28 the migratory route for wild sockeye was never  
29 considered at the time of their approval?

30 MS. MORTON: I did not see any reference to that in  
31 there, and I believe we heard testimony earlier  
32 that it was never considered in the original  
33 siting of these farms, nor when they were --

34 MS. PARKER: Excuse me.

35 MS. MORTON: -- transferred to the federal government.

36 MS. PARKER: I'm sorry, I'd just like to add to that.  
37 The **CEAA** screenings are actually circulated to  
38 Fisheries management, as well. So area biologists  
39 would have a chance to assess the applications or  
40 the existing farms when they're undergoing  
41 Transport Canada EA on the basis of impact to  
42 local stocks.

43 Q Well, Ms. Parker, are you able to point to any  
44 documents that show that the migratory route of  
45 sockeye was ever considered for any of these  
46 farms?

47 MS. PARKER: I can say with some confidence that salmon

1 habitat, fish habitat and fish population level  
2 effects are considered in **CEAA** screenings.

3 Q Yes.

4 MS. PARKER: And you can find that information on the  
5 **CEAA** website and also on the Habitat Management  
6 website.

7 Q But the point is, the fact that this is a special  
8 area, a unique place for wild sockeye migration,  
9 that fact was never explicitly referred to in any  
10 of the documents, or considered?

11 MS. PARKER: I would say that the entire coast of B.C.  
12 is a special place, where there are migratory  
13 stocks.

14 Q So you don't --

15 MS. PARKER: So population level effects are regularly  
16 and routinely considered in environmental impact  
17 assessments on salmon farms.

18 Q All right. Now, I'd like to address my questions  
19 to Mr. Backman. Can you confirm that when your  
20 company placed its sites on that area that it took  
21 no special care because of wild -- the wild  
22 sockeye migration route?

23 MR. BACKMAN: I can confirm that all the siting  
24 criteria that applied to the application for a  
25 salmon farm, which I went through yesterday and  
26 explained how they applied to salmon, and not just  
27 when they're migrating but they apply to salmon at  
28 all life stages, were considered in the  
29 application of these farms. And I went through --  
30 and I also explained how in the mid-2000s the  
31 **CEAA**, the review that was brought in later on,  
32 also applied to all of these farms.

33 So I think that it's very fair to say that  
34 state of knowledge around what could be concerns  
35 about these farms vis-à-vis migrating salmon at  
36 all stages, when very young, midrange, when  
37 they're -- when they're travelling in, when  
38 they're travelling out, all of that comes through  
39 the **CEAA** VEC tables and forms part of the  
40 consideration of these farms.

41 Q So the fact, though, that the distance or whether  
42 they're in the middle of a wild salmon migratory  
43 route is not part of the siting criteria, is a  
44 pretty significant oversight, is it?

45 MR. BACKMAN: It's actually as I mentioned, the  
46 consideration of moving salmon migrating in and  
47 migrating out is all captured. It's not that they



- 1           weren't -- it's not that this was not part of the  
2           review. It was very much part of the review.
- 3       Q     Well, the siting criteria list keep you from  
4           putting farms within a kilometre of a single  
5           salmon stream containing a single run of salmon,  
6           and it would keep you from putting a farm near the  
7           spawning habitat of herring, why wouldn't that  
8           apply to the place where three or four hundred  
9           million sockeye smolts from the Fraser River go  
10          past?
- 11       MR. BACKMAN: The considerations are not just limited  
12           to migrating sockeye. The considerations are  
13           beyond the siting criteria, and these are  
14           contained in the additional elements of the  
15           reviews that are done internally within the DFO  
16           from -- based on their Science work, the Habitat  
17           Branch, the reviews that are done in those cases,  
18           and that's all factored into the later reviews  
19           under the **Environmental Assessment Act**.
- 20       Q     So is it your --
- 21       MR. BACKMAN: They look at far more than just the  
22           migrating sockeye. They look at implications on  
23           pink, chum salmon. They look at implications of  
24           depth. They look at implications of relation to  
25           shoreline.
- 26       Q     Is it your evidence that your company, if it's  
27           allowed, unless this Commission makes some sort of  
28           recommendation, will continue to put salmon farms  
29           in the middle of wild sockeye migration routes?  
30           Is that your evidence?
- 31       MR. BACKMAN: Marine Harvest will continue to use these  
32           farms according to the conditions of licence on  
33           our existing licences under the **Pacific**  
34           **Aquaculture Regulation**. We will also continue to  
35           work with science groups and DFO in determining  
36           any new information about where various groups of  
37           fish are migrating, and the sockeye salmon migrate  
38           all through here --
- 39       Q     And so --
- 40       MR. BACKMAN: -- in different years.
- 41       Q     And can I also suggest to you that the licences  
42           and the fish health management plans for these  
43           particular farms have no different rules or  
44           regulations in any way to account for the fact  
45           that wild sockeye are migrating right past them.  
46           There's nothing special in these licences, is the  
47           question, to deal with sockeye?

1 MR. BACKMAN: The situation in these licences at this  
2 present time captures the suite of knowledge and  
3 understanding...

4 Q So is that a no, there isn't anything?

5 MS. PARKER: I would just like to add that --

6 Q No, I want to --

7 MS. PARKER: -- there's nothing special, because those,  
8 those parameters, those valued ecosystem  
9 components and that analysis is applied to every  
10 single farm.

11 Q There's nothing special about these farms, in your  
12 view?

13 MS. PARKER: There's nothing additional because it's  
14 already captured.

15 MR. McDADE: I am done. Thank you, Mr. Commissioner.

16 MR. MARTLAND: Thank you. Mr. Commissioner, I have  
17 next counsel for the Conservation Coalition, 60  
18 minutes.

19 MR. LEADEM: Good morning, Mr. Commissioner, Leadem,  
20 initial T., appearing as counsel, along with Judah  
21 Harrison, for the Conservation Coalition.

22

23 CROSS-EXAMINATION BY MR. LEADEM:

24

25 Q My questions for the first part will be mainly to  
26 my client, Ms. Stewart, and from there I will  
27 envelop the other members of the panel in  
28 discussions. And if at any time you wish to  
29 insert yourself into the process, please let me  
30 know by raising a finger or hand and I'll try to  
31 include you.

32 Ms. Stewart, can you describe for the  
33 Commissioner what CAAR is and what it does.

34 MS. STEWART: Sure. CAAR is a coalition of  
35 environmental groups that was formed in 2001, and  
36 the acronym stands for the Coastal Alliance for  
37 Aquaculture Reform. Anyone concerned about the  
38 current status of open net cage farms in B.C. is  
39 usually branded by industry as anti-aquaculture.  
40 But as the name of the coalition indicates, we're  
41 not opposed to aquaculture, we recognize it has a  
42 place in our world. Our concerns are how it's  
43 practised, and where it's practised, and what its  
44 impacts are, and trying to, as the name indicates,  
45 reform the industry and put it on a more  
46 responsible, a sustainable footing.

47 There are five member groups currently in

1 CAAR: The David Suzuki Foundation, T. Buck Suzuki  
2 Foundation, Georgia Strait Alliance, Watershed  
3 Watch and my own group, Living Oceans.

4 Q In a moment I'm going to go to some documentation,  
5 but I want to start off with respect to asking you  
6 some questions about closed containment and about  
7 CAAR's role in trying to promote closed  
8 containment.

9 MS. STEWART: Mm-hmm.

10 Q Was CAAR actively involved with the industry in  
11 trying to move forward in terms of a pilot project  
12 for closed containment in this province?

13 MS. STEWART: We still are, in fact, CAAR negotiated a  
14 framework for dialogue with Marine Harvest in  
15 2005-2006 that contained several components.

16 One of those was a commitment on the part of  
17 the company to implement alternating fallow routes  
18 in the Broughton Archipelago. So on one year the  
19 farms, the majority of farms in the Tribune-Fife  
20 outmigration corridor would be empty of fish  
21 during the juvenile outmigration period. The  
22 following year the Knight Inlet route would be  
23 empty of fish during that same timeframe.

24 And the company would implement more  
25 proactive lice treatment strategies on the farms  
26 that were stocked, and largely would be stocked  
27 with juveniles, which some research in Norway  
28 indicates are less likely to have heavy lice loads  
29 on them.

30 We also embarked on discussions around  
31 several collaborative science projects, and I can  
32 talk more about how that has been -- has morphed  
33 into the Broughton area monitoring program that  
34 now involves DFO and the three main companies  
35 operating in the Broughton, and the data sharing  
36 agreement that was negotiated. And the  
37 preliminary findings from that indicate that the  
38 coordinated management strategy has met with some  
39 success, has lowered lice levels, but it's limited  
40 to only dealing with the lice levels on out-  
41 migrating juveniles. It doesn't deal with the  
42 host of other problems associated with the open  
43 net cages.

44 And then we also are discussing with the  
45 company the possibility of embarking on a closed  
46 containment pilot. Marine Harvest hired the  
47 engineering firm, WorleyParsons, they've been

1 looking at site potential, water provision. And  
2 we have a joint study underway with the  
3 Conservation Strategies Fund out of California  
4 that is trying to do a full cost/benefit analysis  
5 of open net cage versus close containment  
6 operations.

7 Q All right. I'm going to pull a document up for  
8 your contemplation. It's a Memorandum to Cabinet.  
9 It's Conservation document number 14, please.  
10 You're familiar with this document, Ms. Stewart?

11 MS. STEWART: I am, yes.

12 Q If I could ask to go to the PDF number 3 under  
13 "Ministerial Recommendations". And point number 1  
14 I just want to read into the record, then I'm  
15 going to come back and ask you a question about  
16 it.

17  
18 RECOMMENDATIONS

19  
20 It is recommended that:

21  
22 1. In partnership with industry (Marine  
23 Harvest - \$5 M), the Province of BC (\$10M),  
24 and a charitable donor (Gordon and Betty  
25 Moore Foundation - \$10M), Cabinet support the  
26 investment of \$5M to contribute to a fund  
27 which will support initiatives piloting new,  
28 commercial-scale aquaculture systems.

29  
30 So let me come back to the Betty Moore Foundation  
31 and ask you what role, if any, did CAAR play with  
32 respect to that funding?

33 MS. STEWART: CAAR actually raised the funding from the  
34 Gordon and Betty Moore Foundation with a  
35 commitment, that actually I believe it was \$5  
36 million, not \$10 million, but we'd be happy to  
37 accept ten if the Moore Foundation would like to  
38 reconsider, but \$5 million would be earmarked for  
39 investment in closed containment pilot projects in  
40 British Columbia. The coalition put a lot of  
41 effort into securing that commitment from the  
42 foundation and then proceeded to work with the  
43 Government of British Columbia and the federal  
44 government to seek matching investment in order to  
45 get the project off the ground. And we also, of  
46 course, were talking to Marine Harvest about  
47 investing in the project, as well.

1 Q Whatever happened to this particular project?

2 MS. STEWART: Well, at the time the province was still  
3 largely responsible for aquaculture operations in  
4 British Columbia, and we had been working with the  
5 Minister and Deputy Minister, now retired, Larry  
6 Peterson, other Cabinet Ministers, and there was  
7 an election looming. This was in the spring of  
8 2009.

9 We had -- this clearly, aquaculture was going  
10 to be a politically contentious issue for the  
11 government going into the election, and we had got  
12 to the point where we had ministerial support and  
13 Cabinet support for investment in a pilot fund. I  
14 had been told personally by the Deputy Minister  
15 that the recommendation had gone to Treasury  
16 Board.

17 So we were right on the cusp of the fiscal  
18 year 2010 budget coming out, but then the  
19 jurisdictional shift took place, and the Province  
20 was no longer responsible for aquaculture. They  
21 were more or less off the hook, and that money did  
22 not make it into the budget. And then the federal  
23 government having now been instructed by Justice  
24 Hinkson to assume management of the farms was, you  
25 know, in a position where they were looking at  
26 major restructuring, and so basically this just  
27 came off -- came off the table.

28 And the sad part about this is that the Moore  
29 Foundation had been holding onto this money for  
30 quite some time, hoping to invest it in British  
31 Columbia, hoping to trigger, you know, innovation  
32 in technology and help to resolve some of the  
33 disputes around aquaculture. But, you know, by  
34 this time, it was becoming increasingly evident  
35 that it was not likely to happen in the near  
36 future in B.C.

37 So portions of that money are still available  
38 to British Columbia, but Moore has been looking  
39 south of the border and has put some of that  
40 investment into a closed-containment facility in  
41 Washington State.

42 Q Could I ask that we move to page 4, PDF number 4  
43 of this document, and paragraph 6. And I'm going  
44 to examine this with you:

45  
46 6. In an effort to address the environmental  
47 controversy surrounding salmon aquaculture in

1 BC, and in keeping with the Sustainable  
2 Aquaculture Program thrusts, the proposed  
3 Partnership Fund is a one-time investment in  
4 the potential expansion of closed-containment  
5 technologies which would test, at a  
6 commercial scale, technology systems which  
7 grow salmon in closed structures rather than  
8 in the open sea cages commonly used today.  
9 Critics of salmon aquaculture typically argue  
10 that the environmental impacts of salmon  
11 farming are externalized in traditional  
12 aquaculture systems and that they must be  
13 internalized for long-term sustainability.  
14

15 And I want to come back to that concept with you  
16 about the external costs and the internal costs of  
17 aquaculture. Are you familiar with that concept?

18 MS. STEWART: Absolutely. And that's one of the areas  
19 of research that we're doing with the Conservation  
20 Strategies Fund. Whenever -- yesterday we saw the  
21 B.C. Farmers Association introduce that report  
22 from WorleyParsons that concludes that perhaps  
23 closed containment won't be profitable. We've  
24 seen the CSAS report from the federal government,  
25 saying it could only be marginally profitable.  
26 But it's comparing apples to oranges, because what  
27 doesn't get factored in is the fact that the  
28 companies do not have to bear the responsibility  
29 of waste disposal. They're able to externalize  
30 that cost into our ocean waters. They dump their  
31 waste. They dump the food waste, the fecal waste,  
32 into the ocean.

33 I've spoken with the manager, for example, at  
34 Marine Harvest Sayward Hatchery, their closed  
35 containment facility there where they raise  
36 smolts, and one of the things he mentioned to me  
37 when we were touring the facility was that one of  
38 the most significant costs they had to deal with  
39 was dealing with the solid waste, removal of the  
40 solid waste, transporting it by truck. It's a  
41 burden on the industry.

42 It's a cost that currently they don't have to  
43 deal with. They're basically, they're getting a  
44 free ride. There's no polluter pay. It's our  
45 receiving oceans that pay the price.

46 So whenever we hear the industry saying that  
47 closed containment isn't economically viable, we

1 want to compare the value of those ecosystem  
2 services that are currently being provided at no  
3 cost to the industry, so that we're looking at  
4 apples to apples and there's a more level playing  
5 field when factoring in the actual operating  
6 costs.

7 Q I see that Mr. Backman has his hand up. Do you  
8 have a comment?

9 MR. BACKMAN: Well, just on this part about the  
10 externalities. It is true that we're going  
11 through a very detailed review of internal and  
12 external costs with the Conservation Strategies  
13 Fund, but one of the things we're doing is looking  
14 at the actual what is an externalized cost? And,  
15 for example, with the waste piece, when the  
16 company is actually held to regulation doing  
17 monitoring, and then based on the monitoring  
18 having to leave the farm fallow for a period of  
19 time to return to close to baseline conditions, in  
20 that case the argument is made that the costs are  
21 actually internalized. So that's one of the key  
22 things that's coming through this.

23 And the other one that I wanted to bring up  
24 is we're looking at issues like disease, for  
25 example, potential for disease transfer, as has  
26 been made very clear by the various panels that  
27 have been here at the inquiry, there is a  
28 potential -- actually putting a measure on the  
29 potential for transfer both to the fish farm and  
30 out of the fish farm requires additional work to  
31 find out what that externality actually would be,  
32 and then be able to monetize that.

33 MS. STEWART: Well, I would agree with Mr. Backman that  
34 the research is still underway, at the very least.  
35 But I think that it's safe to say that at the  
36 moment that the costs of waste disposal are not  
37 being borne by the industry.

38 Q Could I have this marked as the next exhibit,  
39 please.

40 MS. PARKER: Mr. Leadem, could I just --

41 Q Ms. Parker.

42 MS. PARKER: I just wanted to add that under the FAWCR  
43 until it was struck down, companies did pay a  
44 waste fee to the Ministry of Environment based on  
45 a calculation based on the amount of feed used.  
46 So there were annual waste fees paid by the  
47 companies.

1 Q Are you aware of that, Ms. Stewart?

2 MS. STEWART: Well, to be honest, I wasn't aware of  
3 that, and I'd be interested to know what those  
4 fees were.

5 THE REGISTRAR: Your document will be marked as 1831.

6  
7 EXHIBIT 1831: Draft Memorandum to Cabinet,  
8 Partnership Fund to Pilot Closed Containment  
9 Aquaculture Technology

10

11 MS. PARKER: Off the top of my head?

12 MS. STEWART: Sure, well, maybe Mr. Backman can say or  
13 you could say, for example for Bennett Point or  
14 for Humphrey Rock, one of the farms your companies  
15 operate, what would the annual waste fee be?

16 MR. BACKMAN: It was rolled up into an annual fee that  
17 was payable to the Ministry of Environment, and it  
18 went into the hundreds of thousands of dollars  
19 every year.

20 MS. STEWART: Sorry, it was rolled up into an annual  
21 fee, was that --

22 MR. BACKMAN: For all sites, based on utilization.

23 MS. STEWART: For all sites.

24 MR. BACKMAN: Yes. It was calculated for all sites.

25 MR. LEADEM:

26 Q So what you're saying, Mr. Backman, is essentially  
27 that your company through its various farms pays a  
28 licence fee to operate, and that licence fee  
29 encapsulates the waste management portion of it,  
30 as well?

31 MR. BACKMAN: It's separate from the licence fee. The  
32 licence fee is an annual fee, but there are  
33 additional fees that are paid, and in this  
34 particular case we're talking about a fee which  
35 was levied through the Ministry of Environment,  
36 related directly to the use of the site and the  
37 impact on the ocean floor, and that was a specific  
38 fee that was under the provincial, and we don't  
39 pay it right now under the federal, so we're just  
40 waiting to see how that works.

41 MS. STEWART: So that was combined with the tenure --

42 Q So currently there's no fees being paid, as I  
43 understand it, by the aquaculture industry to the  
44 federal government; is that correct?

45 MS. PARKER: Since the FAWCR was struck down there are  
46 no waste-associated fees yet.

47 Q So it is basically a free ride currently.



1 MS. STEWART: Well, at the moment, you know, I think it  
2 would be fair to say there's also a free ride on  
3 the licence fees, because now that the federal  
4 government has assumed control, the licence fees  
5 have to be assessed through the **User Fee Act** and  
6 that apparently is a rather protracted process.  
7 So my understanding from discussions with Mr.  
8 Thomson and Mr. Swerdfager is that there are  
9 currently no licence fees being levied on the  
10 farms operating in B.C. And also when asking Mr.  
11 Thomson if once the licence fee was determined, it  
12 would be applied retroactively, he said that would  
13 be highly unlikely.

14 MR. BACKMAN: It is true that the licence fees are in a  
15 position and a time of being re-evaluated, that is  
16 true.

17 But I wanted to get back to the question that  
18 it's a free ride. It's not a free ride. I  
19 mentioned three things. Under the provincial  
20 there was an annual fee, but there was also the  
21 cost of doing the monitoring and the reporting,  
22 and then there was the cost of leaving the farm  
23 site empty at the end of the cycle of fish to  
24 return to a fallow state -- to the fallow time, to  
25 return to a low state of waste impact. That's an  
26 additional cost, as well. So there was three.  
27 There are right now two.

28 Q All right. Is there some unanimity amongst the  
29 panel that there should be some licence fees, that  
30 the industry should be paying to operate and use  
31 the waters. Do you agree with that concept, Mr.  
32 Backman?

33 MR. BACKMAN: Licence fees? Yes, that's -- I agree  
34 with that.

35 Q All right. And you would agree with that, as  
36 well, Ms. Parker?

37 MS. PARKER: Yes, I do.

38 Q And certainly you would agree with that, Ms.  
39 Stewart?

40 MS. STEWART: Absolutely, but I would also like to see  
41 a structure whereby the tenure fees, which are  
42 paid to the province for the actual leases on the  
43 site and the licence fees, are used in -- rather  
44 than going into general revenues, which I assume  
45 is what probably happens right now, are used until  
46 we have a transition of the industry out of the  
47 net cages, are used to do some remediation and

1 science and work that will benefit the receiving  
2 ocean environment.

3 Q Now --

4 MS. PARKER: Could I --

5 Q -- yesterday --

6 MS. PARKER: Sorry, could I just add about --

7 Q Sorry, I have to move on, and I don't mean to cut  
8 off, but there's a number of topics that I'd like  
9 to cover, and I'd like to get into funding of the  
10 industry, which -- and perhaps you can fit your  
11 comment under that, Ms. Parker. I want to come  
12 back to Exhibit 1805, which we saw yesterday,  
13 which was the Worley report, the WorleyParsons  
14 report, and ask you if you had any comments about  
15 that, Ms. Stewart. This was one that --

16 MS. STEWART: Yes. Yes, I'm now familiar with it.  
17 Honestly, I have not had an opportunity to read  
18 it. I think, you know, there have been other  
19 reports on closed containment, and I'm certainly  
20 not an expert in the technical details of this.  
21 But, for example, the CSAS report that was done by  
22 Department of Fisheries and Oceans concluded that  
23 closed containment would only be marginally cost-  
24 effective, but the data inputs were all  
25 theoretical. They weren't able to use actual  
26 costs of existing closed containment or net cage  
27 systems.

28 Externalized costs were not included in that  
29 CSAS report. They factored in a 30 percent  
30 contingency, which is an unusually high  
31 contingency for typical business operations.

32 I think that one of the concerns we  
33 frequently hear from the industry around the use  
34 of closed containment is energy consumption and  
35 the potential greenhouse gas contributions that  
36 that could make, and that comes back to a question  
37 of what are the energy inputs? We don't have  
38 coal-fired generating plants in B.C., so let's  
39 look at the types of energy that could be used to  
40 power these facilities.

41 But it also strikes me as quite  
42 contradictory. On the one hand the industry says,  
43 well, we don't want to do this because it could  
44 use more energy and be a greater contributor to  
45 climate change, but on the other hand, just a  
46 couple of weeks ago Mary Ellen Walling was quoted  
47 in the Vancouver Sun saying that they'd like to

1 expand the industry because there's growing market  
2 interest in places like India and China. If  
3 they're shipping fresh product by plane to India  
4 and China, that's quite a contributor to  
5 greenhouse gases.

6 So the industry's position is often quite  
7 contradictory. And I think the bottom line is the  
8 weight of evidence globally is telling us that  
9 this industry poses a risk to the health of our  
10 oceans, to the health of our wild salmon, and that  
11 we need to put it on a more sustainable footing.  
12 And if that lowers the profit margin for industry,  
13 so be it. But the risks of impacts to jobs and  
14 people who depend, and ecosystems that depend on  
15 healthy wild salmon, are so significant that we  
16 have to start looking at industry shouldering more  
17 costs for their operation.

18 MR. LEADEM: I want to now shift to the Fish Pathogen  
19 and Pest Treatment Regulations, the proposal, and  
20 Mr. Swerdfager, when he was giving his evidence  
21 talked about that. And if we can have Exhibit, I  
22 believe it's 1688, Mr. Lunn.

23 MR. LUNN: Thank you.

24 MR. BACKMAN: May I make a comment before we move on?

25 MR. LEADEM:

26 Q Certainly. You have to appreciate that I'm under  
27 some time constraints, but I'm also very civil to  
28 people, and so I'm going to try to allow you some  
29 leeway. But I would ask for some respect so that  
30 I can do my work, as well.

31 MR. BACKMAN: Okay. Industry does remain interested in  
32 the development of new technology, and closed  
33 containment is largely under the umbrella of new  
34 technology. And it has a dual purpose, both in  
35 reducing impacts to the environment and  
36 safeguarding wild salmon, but also is -- has to be  
37 nested within the ability of the industry to  
38 remain profitable and be able to actually use  
39 technologies that are going to work. And so all  
40 of the points that Ms. Stewart made are valid, but  
41 they have to be put within the context of the  
42 necessity of doing it, as well.

43 And, you know, we've learned from the panels  
44 here that the concerns around sea lice, the  
45 concerns around the transfer of disease, although  
46 the work is not complete, what we've learned here  
47 from these panels is those are not significant at

1           this point in time to push us in a short period of  
2           time to moving to something like closed  
3           containment, so...

4   MS. STEWART: Well, I think we'd have to beg to differ.  
5           And in terms of closed containment working, it is  
6           working. The AquaSeed facility, for example, in  
7           Washington State is producing closed containment  
8           raised salmon, which are being sold by Overwaitea  
9           Food Group in their stores in British Columbia and  
10          Alberta, and the market demand for that product is  
11          rising.

12   Q        Could we have Exhibit 1688, please. Now, when Mr.  
13           Swerdfager gave his evidence last week, I put this  
14           specific document to him. It's not a draft  
15           regulation, as he clearly indicated, but what it  
16           is - if we can just look at page 2 together, Mr.  
17           Lunn - it's an Impact Analysis Statement  
18           concerning the use of therapeutants, and so forth,  
19           on fish farms.

20           And I'm going to now turn very quickly from  
21           that, I just wanted to provide some context to the  
22           next question, to Conservation document number 15.  
23           This is a document entitled "The **Fisheries Act** and  
24           Fish & Ecosystem Health Management Activities".

25           Are you familiar with this document, Ms. Stewart?  
26   MS. STEWART: Yes, not terribly familiar. It's one of  
27           the documents that I've read in the database.

28   MR. LEADEM: Could we have this marked as the next  
29           exhibit, please.

30   THE COMMISSIONER: I'm sorry, which document are you  
31           receiving?

32   THE REGISTRAR: Tab 15.

33   THE COMMISSIONER: Thank you.

34   MR. LEADEM: Tab 15.

35   THE REGISTRAR: That will be marked as 1832.

36  
37           EXHIBIT 1832: The **Fisheries Act** and Fish &  
38           Ecosystem Health Management Activities, DRAFT  
39           Discussion Paper, September 21, 2009  
40

41   MR. LEADEM:

42   Q        What's your current understanding, Ms. Stewart, of  
43           the use of therapeutants, and agents such as  
44           SLICE, and other antibiotics, and things of that  
45           nature that are in use in fish farms?

46   MS. STEWART: It's a significant concern right now,  
47           because the new **Pacific Aquaculture Regulations**

1 indicate that the Minister may allow the use of  
2 these treatments, then the government didn't  
3 specify regulations within the new **Pacific**  
4 **Aquaculture Regulations**. And my understanding is  
5 that their intent was to develop the Pest Pathogen  
6 Treatment Regulations to deal with this as a  
7 separate issue.

8 As Mr. Swerdfager said, there was an initial  
9 discussion document that was released. We've been  
10 pressing the government to know when we were going  
11 to see draft regulations. He's testified that  
12 there are no draft regulations currently in  
13 existence. And the deposition of deleterious  
14 substances is covered under the **Fisheries Act**, but  
15 without regulations and enforcement mechanisms, at  
16 the moment it seems that there are really no  
17 controls, and we're not clear on what the  
18 government's intent is.

19 Mr. Swerdfager testified that they are not  
20 currently actively pursuing the Pest Pathogen  
21 Treatment Regulations. There doesn't seem to be a  
22 timeline for it. The regulations have not been  
23 gazetted, and yet the companies continue to use on  
24 this coast, use SLICE, emamectin benzoate, and on  
25 the East Coast, where there are provincial  
26 regulations, they're experimenting with a variety  
27 of treatments because they're encountering really  
28 high resistance to SLICE, and that's a concern  
29 here, as well. To the best of my knowledge, we're  
30 not seeing evidence of resistance yet, but it  
31 could certainly emerge.

32 In conversation with Mr. Swerdfager, he did  
33 tell me at one point when they were experimenting  
34 with the bath treatments in well boats in New  
35 Brunswick, that the lice levels on the fish were  
36 not the three to 20 that we may sometimes see in  
37 British Columbia, but 200 to 300 lice per fish.  
38 So once that resistance emerges, you've got a  
39 major problem on your hands. And the lack of  
40 regulation right now is something of a regulatory  
41 black hole. In discussions with Andy Thomson, he  
42 admitted as much. It is currently a black hole.

43 Q I want to now turn to the issue of funding,  
44 specifically funding from the federal government  
45 to industry.

46 MS. STEWART: Mm-hmm.

47 Q And I want to begin by examining with you a couple

1 of documents. And the first one has already been  
2 made an exhibit. It's Exhibit 1729. I believe  
3 it's also Conservation document number 19, Mr.  
4 Lunn. Now, this describes a program, and I think  
5 we have to be careful with our acronyms here,  
6 because there's two IMAPs, as I understand it.  
7 MS. STEWART: Okay. We call this one AIMAP to  
8 distinguish it from IMAP, the Integrated  
9 Management Plan.  
10 Q All right. So I'm going to call this one AIMAP,  
11 following your example, Ms. Stewart, and tell us  
12 about this program to your knowledge and what it  
13 does and what it purports to do.  
14 MS. STEWART: Well, to the best of my knowledge, it was  
15 a \$70 million investment that was made by the  
16 federal government to facilitate innovation and  
17 market access for the aquaculture industry. A  
18 portion of it is supposed to go to regulatory  
19 reform, a portion to science and a portion to  
20 market access.  
21 MR. LEADEM: If I could have Conservation document  
22 number 45, please. And you're going to have to  
23 blow that up and go to the Pacific area, "Pacific  
24 Region", and if you can enlarge that a bit more.  
25 MR. LUNN: It's because of the width, that's about all  
26 I can do.  
27 MR. LEADEM: Are we at the limit of your capabilities?  
28 MR. LUNN: Unless you want just one column.  
29 MR. LEADEM:  
30 Q Under the "Pacific" -- can you read that, Ms.  
31 Stewart?  
32 MS. STEWART: Yes. Yes.  
33 Q Under the "Pacific Region", I think if you look  
34 down, the third item down, there should be  
35 something --  
36 MS. STEWART: Yes, there's:  
37  
38 Soft-flesh Suppression Technology.  
39  
40 I believe that's for *Kudoa*, a grant that went to  
41 Marine Harvest Canada. The first column is the  
42 total amount of the project, and the second  
43 column, the 142,500 is the AIMAP grant to Marine  
44 Harvest.  
45 Q Now, what is soft-flesh?  
46 MS. STEWART: Now, I'm not an expert in it. My  
47 understanding is it's called *Kudoa*, and it is a

1 disease, or whatever, it affects the flesh of the  
2 fish, makes it less marketable because the flesh  
3 has a tendency to deteriorate. But I'm not a  
4 scientist, I...

5 Q Is that basically correct --

6 MS. STEWART: Ms. Morton might be able to speak to that  
7 with more accuracy.

8 Q Is that basically correct, Mr. Backman?

9 MR. BACKMAN: Yeah, soft flesh actually occurs for a  
10 number of reasons. It can be the temperature of  
11 the fish during harvest, and that sort of thing.  
12 But the specific piece of work that was being done  
13 to look at how to reduce it, according to the  
14 *Kudoa* internal parasite, that was what was -- that  
15 was what we were after on this particular. And  
16 occasionally what happens is that this parasite,  
17 which is very, very small, tiny, and occasionally  
18 resides within the salmon, has no -- no human  
19 health considerations whatsoever, but it just  
20 causes the salmon carcass to get soft after the  
21 fish has been killed. There is a fair amount of  
22 research being done on that, because it comes and  
23 goes within the salmon industry. It's been  
24 noticed in wild salmon, as well.

25 MS. STEWART: My understanding is it's not particularly  
26 a risk, as Mr. Backman has said --

27 MR. BACKMAN: That's right. Yeah.

28 MS. STEWART: -- to human health, or to wild salmon  
29 populations. But it is --

30 MR. BACKMAN: I just want to make one quick --

31 MS. STEWART: -- it is a concern for industry because  
32 of the marketability of the fish.

33 MR. BACKMAN: We're also in negotiation with the AIMAP  
34 group for some funding towards the closed  
35 containment pilot.

36 MS. STEWART: Yes.

37 MR. BACKMAN: And so we're very thankful that they're  
38 looking at an application there, as well.

39 Q Under the heading "Market Access (National)", the  
40 first item down says:

41  
42 Market Research for BC Farmed Salmon  
43 Producers.  
44

45 And there's a reference there to CAIA.

46 MS. STEWART: Mm-hmm.

47 Q And it appears as though the total is 135, and so

1           it looks as though \$100,000 is coming from the  
2           federal government directly to CAIA.; is that  
3           right?

4       MS. STEWART: Yes, that's the Canadian Aquaculture  
5           Industry Association.

6       MR. LEADEM: Could we have -- could that be marked as  
7           the next exhibit, please.

8       THE REGISTRAR: Exhibit 1833.

9  
10                   EXHIBIT 1833: Aquaculture Innovation and  
11                   Market Access Program 2009-10  
12

13       MR. LEADEM:

14       Q     Could we have now Conservation document number 46,  
15           please. And once again if you can find the  
16           "Pacific Region", and I think it's six or seven  
17           items down, there's a "Marine Harvest Canada":  
18

19                   Alternative Fish Cage Nets for Improved  
20                   Biofouling, Durability and Fish Growth.  
21

22           And it looks as though there's a contribution from  
23           Canada of \$200,000 for this particular item; is  
24           that right?

25       MS. STEWART: And that's correct. And our concern here  
26           is certainly that we object to government  
27           supporting innovation within the industry, but the  
28           government has to make choices and prioritize.  
29           And when we hear testimony that important  
30           research, like Dr. Miller's research, is  
31           potentially not being funded, and yet we see  
32           profitable corporations receiving taxpayer grants  
33           to deal with issues that are internal to the  
34           industry, by and large, that's when we have to  
35           question the government's prioritization and their  
36           decisions. You know, where are their priorities?  
37           The Department of Fisheries and Oceans should be  
38           doing their best to ensure the health of marine  
39           ecosystems and wild fish, not subsidizing  
40           profitable corporations to contend with internal  
41           problems that may affect their profitability.

42       Q     And under the heading once again, "Market Access  
43           (National)":  
44

45                   Leveraging Aquaculture Standards and  
46                   Certification Benefits for Canada.  
47



1           Once again there seems to be a grant or some  
2           funding going to CAIA in the amount of \$200,000  
3           from the federal government; is that right?

4   MS. STEWART: And that's correct. And it's this type  
5           of subsidy to the industry that flies in the face  
6           of Mr. Swerdfager's testimony that DFO is not  
7           acting as a promotional arm of the aquaculture  
8           industry. There it is. You know, they're  
9           granting industry associations money in order to  
10          try to capitalize on market access, to develop  
11          certification programs that attest to the  
12          sustainability of open net cage practices.

13                 There's a lot of federal government  
14          investment going into these programs, and I can  
15          speak more to that because of work that CAAR has  
16          been doing and Living Oceans has been doing in our  
17          market outreach program. We do meet with  
18          retailers such as Overwaitea, Safeway, Loblaw. We  
19          work on a -- we have a program called the Wild  
20          Salmon Supporters that does outreach to chefs and  
21          restauranters, and we're also part of an alliance  
22          called Sea Choice, that is a seafood  
23          sustainability program doing a lot of work in the  
24          marketplace. And we hear a lot back from those  
25          chefs, from those retailers, about their  
26          encounters with CAIA, with DFO, with Mr.  
27          Swerdfager, and the lobbying and the promotional  
28          activities advocating for sustainability of open  
29          net cage technology that take place at taxpayer  
30          expense.

31   MR. BACKMAN: Just very quickly, if I may, the market  
32          access piece is part of the overall strategy for  
33          the AIMAP, so it's not -- it's not outside the  
34          terms in which the program was set up, and  
35          specifically the second Marine Harvest application  
36          though.

37   MS. STEWART: It's not outside their mandate. We're  
38          not questioning the mandate.

39   MR. BACKMAN: The second Marine Harvest piece, it's not  
40          entirely internal to the interests of the company.  
41          Good husbandry means healthier fish and it means  
42          fewer fish health events and having nets that are  
43          more appropriate and have improved fish health,  
44          actually benefits everyone.

45   MS. STEWART: Sure, but good husbandry should be the  
46          responsibility of a for-profit corporation, not  
47          the responsibility of Canadian taxpayers who --

1 and the Department who is currently underfunding  
2 Conservation and Protection, and underfunding  
3 Science.

4 MR. LEADEM: Could we have that marked as the next  
5 exhibit, please.

6 THE REGISTRAR: Exhibit 1834.

7

8 EXHIBIT 1834: Aquaculture Innovation and  
9 Market Access Program 2010-11

10

11 MR. LEADEM:

12 Q I'm now going to turn to document 49 on  
13 Conservation's list, Mr. Lunn. Now, this is  
14 public document. It's the Officer of the  
15 Commissioner of Lobbying of Canada, and it's the  
16 lobbying statement for CAIA filed by Ruth Salmon,  
17 the Executive Director of CAIA. If we can turn to  
18 the second page, please. The "Government  
19 Institution" there, "Funding Received in Last  
20 Financial Year" from "Fisheries and Oceans  
21 Canada", there's an amount of \$372,127. And then  
22 "Agriculture and Agri-Food Canada", funding of  
23 \$470,530. "Funding Expected in Current [Fiscal]  
24 Year". This is for 2010, is it, Ms. Stewart?

25 MS. STEWART: That's my understanding, yes.

26 Q And then the "Funding Expected in the Current  
27 Financial Year" is also "Yes". Could we have that  
28 marked as the next exhibit, please.

29 MS. PARKER: Could I just point out that CAIA advocates  
30 on a national level not just for salmon farmers,  
31 but for growers of many different products  
32 throughout the country, particularly shellfish  
33 growers on the East Coast, and trout, freshwater  
34 fish culturists in the Centre Region. So their  
35 activities are on behalf of very broad  
36 stakeholders.

37 Q But it's basically funding, is it not, Ms. Parker,  
38 funding from Canadian taxpayers that's basically  
39 going into industry, whether it be East Coast or  
40 West Coast; isn't that right? It's Canadian  
41 funding, Canadian taxpayers' dollars going into  
42 the industry which should be self-supportive.

43 MS. PARKER: Respectfully, I would suggest that  
44 Canadians expect a lot from their government and  
45 it's not at all unusual for smaller producers or  
46 small business holders to collectively engage in  
47 an industry association who will lobby on their

1           behalf for their special needs.

2       MS. STEWART: My concern is not that the federal  
3           government is supporting Canadian businesses, I  
4           mean that's standard practice across the board,  
5           and I think it's expected of the trade commissions  
6           in various countries. My concern is the  
7           misrepresentation that is undertaken by the  
8           agencies and by the government and the support  
9           that's given with taxpayer dollars to counter the  
10          weight of scientific evidence, the concerns of  
11          indigenous people, and the concerns that I think a  
12          lot of us share around the impacts of open net  
13          cage salmon farming.

14                Just as an example, we've been doing a lot of  
15          work over the years with Safeway, and a couple of  
16          years ago myself and Dr. Craig Orr were at a  
17          meeting in California, and I set up a meeting with  
18          the executive of Safeway headquarters in  
19          Pleasanton, California. We went and met with  
20          them. We did a presentation to the executive  
21          level around our concerns with open net cage  
22          practices in B.C. And within about a week, a week  
23          and a half, I got a call from Safeway saying that  
24          Mr. Swerdfager and Ruth Salmon from CAIA had come  
25          down to California to meet with them and counter  
26          all of the information that we had put forward,  
27          advancing claims that the Canadian industry is  
28          completely sustainable, that sea lice are simply  
29          not a problem, despite the fact that they're a  
30          problem everywhere else in the world, as is  
31          acknowledged by governments in Europe, for  
32          example. I personally don't think that that this  
33          a responsible use of taxpayer dollars.

34                And just further to that, we talked a little  
35          bit when Mr. Swerdfager was on the stand about the  
36          outreach program they had been doing through the  
37          trade commission and Ms. Ginsberg in the San  
38          Francisco office, one of the members of our Wild  
39          Salmon Supporters Campaign, a chef in the United  
40          States, contacted us to say that Ms. Ginsberg was  
41          organizing a tour of British Columbia for chefs,  
42          restauranters, distributors and retailers, and  
43          that they were going to visit a Marine Harvest  
44          farm, and he wanted some information in advance of  
45          this trip, which I have to assume was paid for by  
46          the Canadian government. I asked him if he was  
47          paying his own way, and he said he was not.

1           But after that meeting, he wanted to try and  
2 set up sort of a round table discussion because he  
3 was hearing the government's side of the story, he  
4 was hearing the industry's side, he was hearing  
5 CAAR's side, he said, "Let's get everyone in the  
6 same room and let's have the discussion out on the  
7 table." And that was something that I had  
8 experienced during my work in the forest sector,  
9 where customers from Europe, the provincial  
10 government, the federal government, the  
11 environmental groups, the First Nations, everyone  
12 had met together. So you know, it kept all sides  
13 honest, and people were able to say frankly what  
14 they believed and counter the information put  
15 forward by the other.

16           When he proposed this to the trade  
17 commission, they said, well, they'd be interested  
18 in doing it, but only if the ENGOs were limited to  
19 one panel for one hour of the entire day, and that  
20 was it. They were not willing to actually engage  
21 in a dialogue. And it just seems to me that it's  
22 an inappropriate use of our tax dollars for our  
23 government to be out there lobbying on behalf of  
24 the industry, and then refusing to engage in an  
25 open and transparent dialogue with industry, with  
26 customers, retailers and the government and the  
27 ENGOs.

28 MR. LEADEM: Could we have this lobbying report marked  
29 as the next exhibit, please.

30 THE REGISTRAR: We haven't marked Tab 49 yet, so that  
31 will be marked as 1835.

32  
33           EXHIBIT 1835: Office of the Commissioner of  
34 Lobbying of Canada, lobbying statement for  
35 CAIA filed by Ruth Salmon  
36

37 MR. LEADEM: Thank you.

38 Q       And I'm going to ask to go to -- your  
39 conversation, Ms. Stewart, prompted me to go to  
40 document number 34 in Conservation's list. It's a  
41 document entitled "CAIA / DFO California Trip  
42 Report". And it appears as though this references  
43 a meeting with Safeway and so forth. Is this what  
44 you had in mind when you were discussing your  
45 evidence?

46 MS. STEWART: Yes. It's interesting, this is from Mr.  
47 Swerdfager's files, and it's interesting that he

1 puts CAIA first and DFO second, but, yes, this was  
2 the follow-up, the memo summarizing the trip that  
3 he and Ms. Salmon took to California.

4 I think what I also find unfortunate here is  
5 that the grocery retail sector is shifting.  
6 Increasingly they are adopting sustainable seafood  
7 policies. Safeway, Loblaw, you know, the major  
8 chains, Overwaitea Food Group, they are all  
9 adopting and setting timelines for implementation  
10 of sustainability policies around the seafood that  
11 they will sell.

12 And in all responsible seafood sustainability  
13 programs, such as the Monterey Bay, or SeaChoice,  
14 where assessments are conducted of fisheries and  
15 they're categorized as to whether they should be  
16 red-listed, which is avoid, or yellow or green,  
17 open net cage farmed salmon falls into the red-  
18 listed category. The only one that is green-  
19 listed and given a sustainability ranking by  
20 Monterey Bay, for example, is the AquaSeed closed  
21 containment re-circulating facility in Washington  
22 State.

23 So what we're seeing is a market trend to  
24 phase out red-listed species and stop carrying  
25 them in the grocery stores, at the same time that  
26 the Canadian government and the industry here in  
27 British Columbia are digging in their heels,  
28 denying the evidence, and resisting any change.  
29 The investment is going on in the United States,  
30 and while we're bickering, they're going to be  
31 cornering the market on more sustainable  
32 production methods. I just think that that's very  
33 short-sighted of the Canadian government, and that  
34 they should shift their priorities, stop defending  
35 practices that are indefensible and invest in  
36 innovation and change.

37 MR. LEADEM: Could we have this "CAIA / DFO California  
38 Trip Report" marked as the next exhibit please.

39 THE REGISTRAR: Exhibit 1836.

40  
41 EXHIBIT 1836: CAIA / DFO California Trip  
42 Report

43  
44 MR. LEADEM:

45 Q And before leaving funding, I want to turn to  
46 another acronym and I think the next set of  
47 questions may be for you, Mr. Backman. If I can

1           have Exhibit 1734, please, on the screen. This is  
2           an email chain that appears to be emanating from  
3           Mary Ellen, that would be Mary Ellen Walling, to  
4           the best of your knowledge, Mr. Backman?

5   MR. BACKMAN: Yes.

6   Q   And if you can just scroll down to the second  
7       email chain, you'll see that there's a reference  
8       there in an email from Mary Ellen dated August 18,  
9       and you're copied in that email chain. Do you see  
10      that, Mr. Backman?

11   MR. BACKMAN: Yes, I do.

12   Q   And the topic is this ACRDP Committee and its  
13       source of funding, and whether or not that source  
14       of funding is going to be afforded to Dr. Kristi  
15       Miller with respect to being -- or enabling her to  
16       test some of the Atlantic salmon in open net cages  
17       for her -- what she describes as her parvovirus.  
18       So that's the context, as I understand it. Do I  
19       have that right?

20   MR. BACKMAN: That's correct. Ms. Walling is  
21       mentioning that the -- two things, really, that  
22       now that there's a -- the beginnings of the  
23       understanding of a parvovirus that can be actually  
24       tested for, that she's coordinating the response  
25       by the industry to provide samples. But based on  
26       the fact that there's limited funding in order to  
27       do this work, Ms. Walling is also finding some  
28       access to some existing ACRDP money that could be  
29       made available so that those samples can be  
30       processed and can further Kristi Miller's work.

31   Q   So what does that acronym stand for, the ACRDP? I  
32       stumped you on that one, did I?

33   MR. BACKMAN: You did stump me this morning on that  
34       one.

35   Q   Yeah.

36   MR. BACKMAN: It's a federal government program of  
37       research which is set up to partnership -- to  
38       partner with aquaculture, all kinds of aquaculture  
39       whereby federal research can be brought forward  
40       and issues that are of interest, both to the  
41       industry and federal government researchers, and  
42       it requires a component of funding from both  
43       parties, in cash or in kind from industry.

44   Q   All right. And as I understand it, Ms. Walling  
45       sits on this ACRDP Committee, does she not?

46   MR. BACKMAN: Right.

47   MR. MARTLAND: Just because I like to have a very clean

1 record, if we can do it, the PPR at page 150 gives  
2 a list of acronyms. Aquaculture Collaborative  
3 Research and Development Program is our note of  
4 that acronym.

5 MR. LEADEM: Thank you, Mr. Martland.

6 Q So if I could just scroll down to the initial  
7 email that has given rise to this chain in which  
8 you were copied, it's a lengthy email from Dr.  
9 Miller-Saunders, and if you can go to the next  
10 page, about the middle of the page, "I had heard",  
11 you see there's a third paragraph there:

12  
13 I had heard that there was some ACRDP money  
14 that has not yet been spent, about 30K, I  
15 believe.

16  
17 And she goes on to say:

18  
19 As we do not have funding to do this  
20 screening, it would be helpful --

21  
22 - she's writing to Mary Ellen Walling -

23  
24 -- if you could suggest (to Laura Brown) --

25  
26 - who, as I understand, is a DFO representative -

27  
28 -- that this work could be funded using these  
29 extra funds. Otherwise, the actual screening  
30 will have to await our finding funds to do  
31 so.

32  
33 So it looks as though this ACRDP, which is a  
34 collaborative effort between industry and DFO  
35 Science, has some money and that's why Dr. Miller  
36 is trying to tap into that. Is that your  
37 understanding of what was going on at this time?

38 MR. BACKMAN: Yeah, that's my understanding.

39 Q Now, getting back to the issue of -- could I have  
40 Conservation document number 48, please. Do you  
41 recognize this, Ms. Stewart?

42 MS. STEWART: Yes.

43 Q It's a letter dated May 27, 2001 and you're  
44 writing to the Minister of Fisheries and Oceans,  
45 Minister Ashfield?

46 MS. STEWART: That's correct.

47 MR. LEADEM: Could we have that marked as the next

1 exhibit, please.

2 THE REGISTRAR: Exhibit 1837.

3

4 EXHIBIT 1837: Letter to Mr. Schuessler and  
5 Minister Ashfield from CARR, May 27, 2011  
6

7

7 MR. LEADEM:

8

8 Q Under the heading "Synthetic Parasiticides", under  
9 the first -- you reference some issues. Do you  
10 want to just speak generally to this letter first,  
11 and then we can --

12

12 MS. STEWART: Sure.

13

13 Q -- look at some of the topics.

14

14 MS. STEWART: The Canadian government currently has a  
15 program underway to secure organic certification  
16 for open net cage farm salmon products in Canada,  
17 and we've been extremely concerned about this. We  
18 heard from parties within DFO that discussions had  
19 been initiated with the aquaculture industry.  
20 Those were taking place behind closed doors.  
21 There was no effort to seek input from other  
22 parties. DFO and industry representatives were  
23 developing the draft standard on their own. We  
24 were told that we would be -- we would have an  
25 opportunity to engage in the dialogue once there  
26 was a draft standard, and it went to the Canadian  
27 General Standards Board, who would then take over  
28 the process of working through towards a  
29 certification standard, an organic certification  
30 standard.

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When the draft standard first came out, it  
was going to allow antibiotic use, for example, on  
the farms, which is fundamentally contrary to the  
very notion of organically certified food  
products. We had been working with various  
terrestrial organic associations and farm  
associations, and they were extremely concerned  
that if this was allowed to go forward without  
stronger criteria, it would undermine the value of  
the organic label as a whole in Canada, because  
consumers would become uncertain whether  
pesticides were allowed in organically certified  
foods, whether antibiotics were allowed in  
organically certified foods.  
It was looking to us as though the Department  
was more or less going to certify the status quo.  
One of the requirements of organic certification



1 for terrestrial animals is that the feed itself  
2 has to be organic, but the determination of the  
3 industry and the Department was that you can't  
4 certify wild forage fish, such as Peruvian  
5 anchoveta, which are ground up and turned into  
6 fish meal and oil to feed the pellets to the  
7 farmed salmon. You can't certify those as organic  
8 because they're a wild species, so therefore there  
9 wouldn't be a requirement for organic feed going  
10 into the product, either.

11 So this is still ongoing. We have engaged  
12 as representatives of CAAR in the National Organic  
13 Standard Board process in the United States.  
14 We've intervened in that. And the U.S. has a  
15 draft standard currently up for consideration for  
16 the FDA, which is quite a bit stricter than the  
17 current draft standard that is under discussion in  
18 Canada. There's a concern there, though, because  
19 there is sort of a harmonization agreement between  
20 Canada and the United States that would  
21 potentially bring the standards down to the lowest  
22 common denominator. So if Canada goes forward  
23 with an extremely weak standard, that could also  
24 impact slightly more credible standard in the  
25 United States and tend to put downwards pressure  
26 on that.

27 And we believe it's just wholly inappropriate  
28 for again our Department of Fisheries and Oceans,  
29 our government, to be seeking market access for  
30 open net cage salmon by investing in a program to  
31 certify that product as organic to an extremely  
32 low standard.

33 MR. LEADEM: Could we have this letter marked as the  
34 next exhibit, please.

35 THE REGISTRAR: Exhibit 1838.

36 MR. MARTLAND: Our note is it may already be 1837, so  
37 we can cancel the last assignment of number.

38 Thank you.

39 THE REGISTRAR: That's correct, it's 1837.

40 MR. LEADEM: Sorry.

41 Q I want to quickly turn now to Conservation  
42 document number 43, Ms. Stewart, which should be  
43 one of your productions, "A Resource Guide to  
44 Farmed Salmon Certifications".

45 MS. STEWART: Correct.

46 Q Does this set out basically the background on eco-  
47 certifications and certifications dealing with

1           farmed salmon worldwide?

2   MS. STEWART: It does. What we did was -- there's a  
3   growing number of certification schemes. Some of  
4   them are industry-driven. Some of them are, you  
5   know, multi-stakeholder processes. But  
6   increasingly there is a desire on the part of the  
7   industry to have some sort of sustainability level  
8   -- label, sorry, on their product.

9           So we looked at the -- at the standards that  
10  were determined by the United Nations Food and  
11  Agriculture Organization, and by ISEAL, the  
12  International Social and Environmental Standards  
13  Accreditation, and I'm sorry, I can't remember all  
14  the details of the acronym, but it's in the  
15  report. But both of those bodies define what are  
16  the elements that constitute a credible  
17  certification program, that doesn't necessarily  
18  mean that the standard itself will be a good  
19  standard. But if you're going to develop a  
20  program in order to issue a certification  
21  standard, what are the elements of that program.  
22  And those include that it's scientifically based,  
23  that it's transparent, that it is multi-  
24  stakeholder, that the standards are publicly  
25  available and can be assessed. You know, what  
26  goes into that label, what -- what is it that  
27  allows that, you know, that certification label to  
28  claim that it is more environmentally sustainable  
29  than another.

30           And this looks at various programs, such as  
31  the Global Aquaculture Alliance, and the Cooke  
32  Aquaculture's True North label, and assesses them  
33  against those UN Food and Agricultural  
34  Organization criteria.

35  MR. LEADEM: Could we have that marked, please. Mr.  
36  Commissioner, I'm in your hands. I've got about  
37  five minutes left to me in my allotment. We could  
38  either take the break now or I can push on and  
39  finish.

40  THE COMMISSIONER: I think if it's five minutes, Mr.  
41  Leadem --

42  MR. LEADEM: That's all I have.

43  THE COMMISSIONER: -- I'm content to carry on.

44  MR. LEADEM: Thank you.

45  THE REGISTRAR: The document will be 1838.

46  
47

1 EXHIBIT 1838: Better than the Rest? A  
2 Resource Guide to Farmed Salmon  
3 Certifications, CARR, 2011  
4

5 MS. STEWART: I think the important thing about this  
6 report, and it was written as a guide for  
7 retailers, is that it informs them on whether or  
8 not the various labels that are being pushed by  
9 the industry meet those criteria that would deem  
10 them to be at least credible, and then beyond that  
11 you can look at the details of the standard itself  
12 and say, do the indicators for that standard seem  
13 appropriate? Are they really achieving a degree  
14 of increased environmental sustainability.

15 MR. BACKMAN: If I --

16 Q I'm going to just note for the record that Mr.  
17 Backman wants to reply, but I'm in my last five  
18 minutes and I want to end with a topic. And I'm  
19 going to suggest that my learned colleague, Mr.  
20 Blair, can perhaps ask that in redirect. So you  
21 can put your marker, Mr. Backman, and hopefully  
22 Mr. Blair will pick you up on that.

23 I want to end by looking at some of the  
24 discussion that I heard yesterday with respect to  
25 the precautionary principle, that I thought was  
26 quite interesting, that you engaged in, Ms.  
27 Parker. And before I do so, I don't know whether  
28 you actually acknowledged, Mr. Backman, that your  
29 company buys into the precautionary approach and  
30 precautionary principle as well; is that not  
31 right?

32 MR. BACKMAN: Yeah, that's correct.

33 Q And specifically you raised it with regard to  
34 siting, and you said, for example, this is  
35 evidence -- this is what you, at least I think  
36 what I heard you say, Ms. Parker, this is evidence  
37 that the companies take into consideration the  
38 precautionary principle because we don't site fish  
39 farms within one kilometre of known salmon bearing  
40 streams. Do I have your evidence more or less  
41 encapsulated correctly?

42 MS. PARKER: I think I said that the federal government  
43 has a precautionary approach framework --

44 Q Yes.

45 MS. PARKER: -- for the regulation, and we followed the  
46 regulation.

47 Q Right. So but basically as good corporate

1 citizens you would want to be precautionary too, in  
2 terms of whatever environmental degradation you  
3 might be causing. Isn't that fair, Mr. Backman?  
4 MR. BACKMAN: I think a precautionary principle of  
5 going forward is a foundational element of how  
6 business, and our business, conducts itself. So  
7 the answer is yes. Precautionary principle,  
8 though, uses the best available information and is  
9 adaptive as we learn more.  
10 Q But it also references the fact that if you have  
11 an uncertain area, in other words, if the science  
12 is uncertain, that you take measures in order to  
13 protect the environment. Isn't that a fair  
14 restatement of the precautionary principle?  
15 MR. BACKMAN: Yes, I think we mentioned a few. The  
16 one-kilometre separation applied to all streams  
17 and all rearing areas is an example, separation  
18 from shellfish beaches is an example. Additional  
19 work is done to fill in the scientific knowledge.  
20 Q And there's also a separation between farms, as  
21 well, as I understand it, is there not?  
22 MR. BACKMAN: Currently at three kilometres separation  
23 (indiscernible - overlapping speakers).  
24 Q So the farms are situated three kilometres from  
25 one another. And so if science were to say, for  
26 example, that that one kilometre is not  
27 sufficient, that we have evidence that there's  
28 actually spread of pathogens or sea lice on a  
29 greater distance, say five to eight kilometres,  
30 obviously then if DFO as the regulator were to  
31 come back to you and say, well, we think you  
32 should be siting your farms eight kilometres, for  
33 example, from fish farms and also eight kilometres  
34 from streams that have salmon in them, you would  
35 of course comply with that, would you not?  
36 MR. BACKMAN: That's a really good statement, and I  
37 think we can go back to the fact that the  
38 separation from salmon -- from streams has already  
39 gone through a stage of change under the very  
40 early set of guidelines. It was one nautical mile  
41 -- I'm sorry, between salmon farms it was one  
42 nautical mile separation when the provincial  
43 government licence came in. It was extended to  
44 three kilometres separation, based on a whole  
45 bunch of information that had been made available  
46 at that time. It's stayed at three kilometres now  
47 for over 20, 30 years -- 20 years, I should say,

1 and it's -- it's stood the test of time in terms  
2 of additional information coming forward. Should  
3 that be resolved again, either less or greater  
4 than three kilometres, and we'd adjust our  
5 business to operate accordingly.

6 Q But isn't it time that we revisit those siting  
7 criteria? I mean, it's been in place for 20  
8 years. Isn't it time that we actually take a look  
9 at the state of the science today and actually  
10 revisit that siting criteria with an aim to  
11 determining what would be the precautionary  
12 approach? What would be precautionary in light of  
13 what we now know about the migratory pathway of  
14 Fraser River sockeye, and what we now know about  
15 the spread of pathogens. Wouldn't it -- isn't it  
16 time that we actually revisited that issue?

17 MR. BACKMAN: I think it's being revisited  
18 continuously, as the environmental assessments are  
19 done on salmon farms, and as new information is  
20 gathered, the Valued Ecosystem Component tables  
21 are updated, and it's an ongoing process of  
22 looking at it.

23 MS. STEWART: But what we're failing to see is any real  
24 change in the industry. So all of the revisiting  
25 in the world is not going to matter to the wild  
26 salmon, or to the health of our marine ecosystems,  
27 if it doesn't result in actual change. And I  
28 think it's important to remember that the  
29 definition of the precautionary approach that Mr.  
30 Blair put up on the screen yesterday said where  
31 there are threats of irreversible damage, lack of  
32 full scientific certainty, is not a reason to fail  
33 to act. And the weight of evidence continues to  
34 mount and our government continues to fail to act.

35 So I can only encourage the Department of  
36 Fisheries and Oceans to take their responsibility  
37 to Canadians seriously and start acting.

38 MR. LEADEM: Thank you, Mr. Commissioner, those are my  
39 -- those are my submissions.

40 MR. MARTLAND: Mr. Commissioner, I have a few brief  
41 procedural things, and I'm sure this won't prompt  
42 any applause. But what they are is first just  
43 simply noting that Ms. Reeves from the First  
44 Nations Coalition pointed out Exhibits 1554 and  
45 1475 are identical, to our understanding. I just  
46 wish to read that into the record.

47 Secondly, there was an affidavit from Rob

1 Morley, who testified in the commercial fishing  
2 hearings. An objection was -- the affidavit was  
3 proposed to pick up on a point that Mr. Rosenbloom  
4 addressed in his questions of Mr. Morley. There's  
5 been an objection put to the admission of the  
6 affidavit. Mr. Lunn may be able to find that, but  
7 we've circulated that out to participants. I'm  
8 proposing not to have this go in as an exhibit  
9 proper, but as an exhibit for identification.  
10 I've spoken with Mr. Rosenbloom and Mr. Dickson.  
11 We'll we addressing a process to deal with this  
12 document, as well, but I'll suggest it's  
13 appropriate that it be put in as an exhibit for  
14 identification to permit it to be addressed  
15 through the process that we'll use for other  
16 documents for ID, exhibits for ID.

17 Those are the two quick points. If I might  
18 suggest a ten-minute break, if that's not  
19 disagreeable, that would help us to stay on  
20 schedule. We are on schedule at this point.  
21 Thank you.

22 MR. TAYLOR: We need it marked for ID.

23 MR. MARTLAND: That's the request.

24 THE REGISTRAR: That will be marked now, that will be  
25 FFF, triple "F".

26  
27 FFF FOR IDENTIFICATION: Affidavit of Rob  
28 Morley

29  
30 MR. MARTLAND: Thank you.

31 THE REGISTRAR: The hearing is now adjourned for ten  
32 minutes.

33  
34 (PROCEEDINGS ADJOURNED FOR MORNING RECESS)  
35 (PROCEEDINGS RECONVENED)

36  
37 THE REGISTRAR: Order. The hearing is now resumed.

38 MR. MARTLAND: Mr. Commissioner, counsel for Canada,  
39 with 60 minutes, is next. Thank you.

40 MR. TAYLOR: Mitchell Taylor, and with me is Jonah  
41 Spiegelman, Mr. Commissioner. I have 60 minutes,  
42 as Mr. Martland pointed out. I'm prepared to  
43 continue through and sit five or so minutes into  
44 lunch, if the Commissioner and the court  
45 officials, or the hearing officials are, and you  
46 can tell me, as we get to that point, whether  
47 that's so, in your view or not, but I'm prepared

1 to.

2

3

CROSS-EXAMINATION BY MR. TAYLOR:

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Q I'm going to start my questions, if I may,  
6 directing questions to Ms. Stewart and Ms. Morton,  
7 and I'm going to ask questions about jurisdiction  
8 and regulation.

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I understand that both of you are unsatisfied  
or dissatisfied with the Provincial regulation and  
with the Federal regulation of aquaculture;  
Provincial before December of 2010, and the  
Federal afterwards, of course. And in that, I  
think we all recognize that at all times both  
governments have had a role in aquaculture. It's  
where the majority of the regulatory power is, or  
regulatory authority.

18

19

20

Now, Ms. Stewart, will you agree with me that  
one or the other of the Provincial or Federal  
government is going to have to be the regulator?

21

MS. STEWART: Yes.

22

Q And Ms. Morton, you agree with that?

23

MS. MORTON: Yes.

24

Q All right. So far, so good.

25

MS. STEWART: Maybe we should end there.

26

Q No, we won't. Thank you for that offer, though.

27

Now, with that, do you accept that open net pen  
salmon aquaculture is an activity that can occur  
somewhere on the British Columbia coast? Ms.

28

29

30

Stewart?

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MS. STEWART: Well, this goes back to the question that

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was asked last night by the representative for the  
Aboriginal Aquaculture Association. I think it  
would be difficult to argue that one open net pen  
in an area the size of the Broughton Archipelago  
would be, you know, fundamentally destructive to  
ocean ecosystems. The question has to be one of  
scale. You know, the current numbers of open net  
cages we have, I believe, are unsustainable, and I  
don't believe that we can -- I certainly don't  
believe that we can increase production. The  
burden on the environment is already too high.

43

Q Are there places or locations on the B.C. coast

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that, in your view, can have sustainable  
aquaculture coexisting with wild stocks where you  
have multiple farms and, whatever that number is,  
multiple farms that is supporting an industry

1 similar to what we have now, are there locations  
2 where that can occur?

3 MS. STEWART: Sure, in closed containment systems.

4 Q No, no, we're talking about open net.

5 MS. STEWART: Again, no, I don't think so. Not  
6 multiple farms, no. The impacts and the weight of  
7 evidence suggests that the impacts are already too  
8 great and the risks are extremely high.

9 Q No location anywhere on the coast?

10 MS. STEWART: Well, there's over 9,000 individual  
11 salmon stocks on the coast of B.C. Virtually the  
12 entire coast is a migratory route for wild salmon,  
13 and wild salmon are really the foundation of the  
14 coastal Pacific ecosystem. They feed a variety of  
15 species as we know, multiple species, over 300.  
16 They even feed the forests.

17 Q All right. I have your point on that, thank you.  
18 Ms. Morton, what do you say?

19 MS. MORTON: No, there's no place that open net pens  
20 can coexist with wild fish.

21 Q Now, your point, Ms. Morton, has been, as I  
22 understand it, that the problem is the salmon  
23 farms on the migratory routes; is that your point?

24 MS. MORTON: The problem is that salmon farms amplify  
25 pathogens, they break the natural laws, and so  
26 they disrupt the ecosystem that they're in.

27 Q And so you say that even if they weren't close to  
28 where the salmon are migrating, it's still a  
29 problem?

30 MS. MORTON: If there was such a place in British  
31 Columbia, it wouldn't be a problem, but I've spent  
32 a long time looking for that place, and it doesn't  
33 appear to exist.

34 Q All right. I have your point, thank you. Now,  
35 Ms. Morton, you took steps to bring before the  
36 courts of British Columbia the question of whether  
37 the Provincial or Federal Government have  
38 jurisdiction over aquaculture, and ultimately you  
39 obtained a judgment that, for finfish aquaculture,  
40 it is the Federal Government who has regulatory  
41 control. We all know that.

42 Now, am I correct that you went into that  
43 litigation knowing that you might win and the  
44 court might say that it's a matter of Federal  
45 jurisdiction?

46 MS. MORTON: Yes, based on my lawyer, Gregory McDade,  
47 we thought we would win.



- 1 Q All right. And so here we are, and you did win,  
2 and there is Federal jurisdiction. So when you  
3 pursued that litigation and ultimately were  
4 successful, did you, as you were pursuing the  
5 litigation, have an understanding that if you were  
6 successful and there was Federal jurisdiction,  
7 there would have to be a fairly quick turnover  
8 from Provincial to Federal regulatory regime?  
9 MS. MORTON: Yes, the understanding existed.  
10 Q And you full well knew the complexity of the  
11 subject matter, you've spoken a lot about that; is  
12 that right?  
13 MS. MORTON: For me it's very clear, the DFO needs to  
14 protect the wild salmon from whatever it is, so  
15 the complexities of regulation and the bureaucracy  
16 behind it, I don't fully grasp, but I do grasp the  
17 biology of the situation.  
18 Q Well, I suppose you might say that it's all very  
19 simple if everyone agreed with you, but you know  
20 that everyone doesn't agree with you, correct?  
21 MS. MORTON: It's really not a matter of agreeing with  
22 me, it's a matter of an honest appraisal of the  
23 natural world and what's happening, the dynamics  
24 between the two populations.  
25 Q All right. That's your view of it, I take it, but  
26 you full well know that there are people who hold  
27 contrary views to what you do, correct?  
28 MS. MORTON: I full well do, but I believe they're  
29 wrong.  
30 Q Yes, I know that. And many of those people that  
31 hold contrary views are very respected scientists,  
32 correct?  
33 MS. MORTON: Are they respected? I have honestly lost  
34 a lot of respect in this process, I have to be  
35 honest with you. I don't mean to be harrassive  
36 with that statement, but when you are looking at  
37 the fish and you have put enormous effort into it,  
38 there is -- it's inescapable, the effect of this  
39 industry, whether it's toxic algae blooms,  
40 displacement of the whales, --  
41 Q Yes, we're talking about --  
42 MS. MORTON: -- lice, bulging eyeballs --  
43 Q -- respected scientists.  
44 MS. MORTON: -- blackening skin, it's just really --  
45 Q Ms. Morton, we're talking about respected  
46 scientists at the moment, if we could stick to the  
47 question, please. You know that people like Dr.

1           Noakes, Dr. Beamish, Dr. Jones, Dr. Johnson, Dr.  
2           Dill, with certain caveats, and others, all have a  
3           different view than you, don't you?  
4   MS. MORTON: I don't believe Dr. Dill does have a  
5           different view from me, but the rest --  
6   Q       Well --  
7   MS. MORTON: -- of them I know have a very different  
8           view.  
9   Q       All right. Thank you. We won't debate Dr. Dill's  
10           view right now, then. Now, with all that, do you  
11           accept that there is complexity - I think you do -  
12           to creating a new regulatory regime?  
13   MS. MORTON: I accept there are complexities.  
14   Q       And there also has to be consultation with quite a  
15           number of interested parties and stakeholders,  
16           including First Nations, doesn't there?  
17   MS. MORTON: Yes.  
18   Q       And will you agree with me that in the time  
19           available, which is approximately 12 to 16 months  
20           from the decision until the regulatory regime came  
21           into play, that a lot of good work was done in  
22           order to set up a new regulatory regime?  
23   MS. MORTON: No, I don't think it was good work.  
24   Q       All right.  
25   MS. STEWART: I would like to make a comment on that,  
26           actually, because I was involved in discussions  
27           with both the Provincial and Federal Governments  
28           after the **Morton** decision came down, and for the  
29           first six months there was an awful lot of debate  
30           around what they were going to do. The Province  
31           wasn't sure they wanted to totally relinquish  
32           control, the Federal Government wasn't sure they  
33           wanted to completely accept control. I sat in  
34           meetings with Trevor Swerdfager and Harvey Sasaki  
35           from the Provincial Government, where they were  
36           debating whether or not they would negotiate a  
37           constitutionally acceptable memorandum of  
38           understanding around sharing jurisdiction. There  
39           was a long debate, and it wasn't until around  
40           September or October of 2009, when I got a call  
41           from a Provincial Government official, saying that  
42           the Province had decided they were going to  
43           relinquish regulatory control to the Federal  
44           Government entirely, and my understanding was that  
45           that decision was not one that the Federal  
46           Government necessarily knew was coming. So, you  
47           know, the first six months of that jurisdictional

1           handover was spent debating what it would even  
2           look like.  
3       Q     All right. Thank you. And that's all part of the  
4           complexity, isn't it?  
5       MS. STEWART: It's certainly complex, but at --  
6       Q     That's a yes or --  
7       MS. STEWART: -- the end --  
8       Q     That's a yes or no question.  
9       MS. STEWART: At the end of the day they basically  
10           adopted the Provincial regulatory regime with some  
11           changes.  
12       Q     It's part of the complexity, isn't it?  
13       MS. MORTON: One of the complexities that jumped out at  
14           me is the Province moved away from regulating this  
15           industry as soon as the Fraser sockeye crash in  
16           2009.  
17       Q     I'm going to, as Mr. Leadem did before me, ask the  
18           panellists to recognize that we're all time  
19           limited and if you could respect the need to have  
20           some level of conciseness, please, in your  
21           questions -- in your answers.  
22           Ms. Morton, I'm going to read something, and  
23           I think you'll recognize the words that I read [as  
24           read]:  
25  
26           I am very interested in ensuring that  
27           aquaculture is properly managed and regulated  
28           and have a real concern that the Government  
29           of B.C. is acting outside its legal  
30           jurisdiction in its regulation of ocean  
31           aquaculture and the Government of Canada, as  
32           represented by Fisheries, has withdrawn from  
33           a proper regulatory role.  
34  
35           Now, do you recognize those words?  
36       MS. MORTON: No, sorry, I don't.  
37       Q     Okay. If I said that's paragraph 12 of your  
38           affidavit in support of your litigation, does that  
39           refresh your memory?  
40       MS. MORTON: That would help, yes.  
41       Q     And do you now recognize those words as being  
42           paragraph 12 in your affidavit?  
43       MS. MORTON: Well, could you put it up on the screen?  
44       Q     I'm not sure that I can. Yes, I can, apparently.  
45           Or Mr. Lunn can, to be more precise. Do you  
46           recognize -- maybe we should start at the  
47           beginning.

1 MS. MORTON: I saw the beginning. Yes, I recognize it,  
2 thank you.

3 Q Go to paragraph 12. You swore to those -- to  
4 those words, didn't you?

5 MS. MORTON: Yes, thank you.

6 Q And while you may not agree with the approach  
7 chosen, do you agree that an objective sound  
8 management and regulation of aquaculture is a key  
9 component in attaining sustainable fisheries?

10 MS. MORTON: It's key. I believe that the split  
11 mandate that DFO has is going to make that  
12 impossible.

13 Q I want to ask you about American University.  
14 That's where you got your degree isn't it?

15 MS. MORTON: Yes, it is.

16 Q And that's in Washington, D.C.?

17 MS. MORTON: That's correct.

18 Q And you obtained your degree in 1977, did you?

19 MS. MORTON: Yes, that's correct.

20 Q That's a private university?

21 MS. MORTON: Yes, it is.

22 Q And is it known as famous for political activism?

23 MS. MORTON: I don't know.

24 Q All right. What do you know its reputation to be?

25 MS. MORTON: It was close to where my mother was  
26 living, and so that's where I began to take  
27 classes. I hope we're going to get back to the  
28 sockeye here at some point.

29 Q Is it what's referred to as a liberal arts  
30 college?

31 MS. MORTON: I don't know.

32 Q Okay.

33 THE COMMISSIONER: Ladies and gentlemen, again, if I  
34 could ask you to respectfully honour the process  
35 here. We welcome the public's participation, and  
36 certainly we welcome your being in the public  
37 gallery, but if you would allow counsel to do  
38 their work, I would be very grateful. Thank you.

39 MR. TAYLOR:

40 Q And that university has a college of arts and  
41 science, doesn't it, and did at the time you were  
42 there?

43 MS. MORTON: If you tell me it does, it did.

44 Q Well, that's the college you were in, isn't it?

45 MS. MORTON: Yes, but, you know, I was just taking my  
46 courses, going through it, and don't have a  
47 recollection of exactly what that university was

1           and all degrees and scope.  
2       Q     Did you get a bachelors of arts and science?  
3   MS. MORTON: I got a bachelor of science. I graduated  
4           *magna cum laude*.  
5       Q     All right. Now, will you agree with me that you  
6           are an advocate against open net fish farms?  
7   MS. MORTON: I am an advocate for wild salmon.  
8       Q     Okay. And is the corollary of that, that you're  
9           an advocate against open net pens?  
10   MS. MORTON: As a corollary, yes. Because of the  
11           damage I see, I have become against net pen farms.  
12   Q     And you collaborate with other like-minded people  
13           in campaigning against active -- or against open  
14           net pens, do you?  
15   MS. MORTON: I've collaborated with a wide range of  
16           people.  
17   Q     All right. Do you have a blog?  
18   MS. MORTON: Yes, I do.  
19   Q     And it's under the name Alexandra Morton?  
20   MS. MORTON: Yes, it is.  
21   Q     Do you have control over the content?  
22   MS. MORTON: Yes, I do.  
23   Q     Do you know what's on it at any given time?  
24   MS. MORTON: Yeah, I'd have to refresh my memory to  
25           look at it, but yes.  
26   Q     All right. You, personally, put material on the  
27           blog, do you?  
28   MS. MORTON: Yes, that's correct.  
29   Q     And over quite a long period of time you've been  
30           putting material on your blog to do with this  
31           Commission of Inquiry, haven't you?  
32   MS. MORTON: Yes, I have, because it's a public inquiry  
33           that relates to wild salmon to which people are  
34           interested.  
35   Q     And you've put up material that is your account of  
36           the evidence given from day to day; is that right?  
37   MS. MORTON: Yes, that's correct.  
38   Q     And your material on the blog includes commentary  
39           on witnesses?  
40   MS. MORTON: Yes, that's correct.  
41   Q     And some of the commentary is quite disparaging?  
42   MS. MORTON: Yes. It's been a disparaging experience.  
43   MR. TAYLOR: Mr. Lunn, are you able to pull up the  
44           September 8th blog?  
45   MR. LUNN: Yes.  
46   MR. TAYLOR:  
47   Q     Do you recognize this as your blog, Ms. Morton?

1 MS. MORTON: Yes, I do.  
2 Q Is that a blog you posted late last night or early  
3 this morning?  
4 MS. MORTON: Late last night, yes.  
5 Q And you posted that blog after you went under  
6 cross-examination in these proceedings?  
7 MS. MORTON: Yes, that's correct.  
8 Q And you --  
9 MS. MORTON: I realize, now, that that was a mistake.  
10 Q All right.  
11 MS. MORTON: But in the explanation as to what I was  
12 able to do and not do, it was the dialogue and the  
13 assisting of your evidence, so I thought, in that  
14 it was the back-and-forth, not the actual just  
15 writing down things that had happened that the  
16 people were able to see that were sitting here.  
17 Q It's my understanding that Mr. Martland or Ms.  
18 Grant specifically told you not to discuss your  
19 evidence with anyone.  
20 MS. MORTON: Yeah, so it was the "discuss" that I made  
21 the mistake on, the back-and-forth. But since  
22 there's people sitting in the audience able to  
23 hear this, because it was live-streamed, I did not  
24 realized that there was that boundary.  
25 Q In this regard, though, you e-mailed Mr. Backman  
26 last evening, did you?  
27 MS. MORTON: Yes, because he made an interesting  
28 observation that I hadn't heard before, that the  
29 Harrison sockeye had been found going north, and I  
30 just had never heard that before, so I was just  
31 curious what his reference was for that.  
32 Q You'll agree with me that that e-mail you've just  
33 described to Mr. Backman is a specific reference  
34 to evidence in this proceeding yesterday?  
35 MS. MORTON: Yes.  
36 Q After you'd been warned not to discuss your  
37 evidence with anyone, or any evidence with anyone?  
38 MS. MORTON: I asked him a question about a reference  
39 that he had made. It was not his opinion. And I  
40 do apologize to the courts if I've made a mistake  
41 here.  
42 Q We're kind of dancing on --  
43 MS. MORTON: But if I --  
44 Q -- the head of a pin, aren't we?  
45 MS. MORTON: -- was doing this in a -- if I knew I was  
46 breaking the rules, I certainly would not have  
47 been public with it, I would have done something

1 privately, but I didn't realize I was breaking the  
2 rules.  
3 Q Let's go to your blog of September 8th, and I want  
4 to specifically address the bottom of page 1 and  
5 over onto page 2, if we could go there. I think  
6 that would be fine. If you start, Mr. Martland  
7 (sic), by pulling up or blowing up where you are,  
8 over onto -- okay, that's fine.  
9 Now, let me just start with -- oh, the print  
10 here is slightly different from mine. Can we have  
11 the paragraph -- as well, can we have the  
12 paragraph above where you are, Mr. Lunn, please?  
13 That's fine. Now, Ms. Morton, that paragraph:  
14  
15 I am really glad Cohen will take a look at  
16 what I pulled together.  
17  
18 I take it you mean the Commissioner in these  
19 proceedings?  
20 MS. MORTON: Yes, that's correct, I was very glad to  
21 hear that he was going to read the report --  
22 Q Right.  
23 MS. MORTON: -- because it's based on 500,000 documents  
24 that were provided to this Commission, and I take  
25 my role seriously to offer all the information  
26 that he will need to make that decision as to  
27 whether aquaculture is impacting the Fraser  
28 sockeye.  
29 Q Okay. As do many other people take their role  
30 seriously; you'll agree with that, will you?  
31 MS. MORTON: Yes, I will agree with that.  
32 Q There's many people doing a lot of good and hard  
33 work in this Commission; do you agree?  
34 MS. MORTON: There's many people, yes.  
35 Q And the 500,000 documents you just referred to are  
36 mostly from the Federal Government, aren't they?  
37 MS. MORTON: Yes. Lots of Provincial documents as  
38 well.  
39 Q And for your part, you produced about a couple of  
40 hundred documents, haven't you?  
41 MS. MORTON: That's right, because I'm not an expert on  
42 the Fraser sockeye.  
43 Q And yet you've got an awful lot of documents,  
44 don't you?  
45 MS. MORTON: I have an awful lot of what type of  
46 documents do you --  
47 Q To do with Fraser sockeye and aquaculture.

1 MS. MORTON: I do now, yes. I have --

2 Q No, no, never mind what you got through this  
3 Commission. Apart from this Commission, you,  
4 yourself, and the Raincoast Research Society, have  
5 a lot of documents on Fraser sockeye and  
6 aquaculture, don't you, from your work you've  
7 done?

8 MS. MORTON: From the think tanks I've gone to and  
9 visiting the First Nations throughout the Fraser  
10 Valley last fall, I have lots of documents, and  
11 then on aquaculture, of course, I've got my own  
12 research and also an archive of scientific papers.  
13 I'm not really sure what you're getting at. I  
14 suspect this line of questioning is to prevent me  
15 from talking about what was actually in those  
16 documents.

17 Q Well, please don't try to speculate or worry about  
18 where I'm going with my questions. I'll just ask  
19 if you could answer them.

20 Now, still with your documents, do you  
21 understand, when I say "documents", I'm including  
22 electronic material such as e-mails?

23 MS. MORTON: Okay.

24 Q Do you understand that?

25 MS. MORTON: I understand that.

26 Q And you're quite a prolific e-mailer to do with  
27 Fraser sockeye and aquaculture, aren't you?

28 MS. MORTON: Yes, I am, because working through  
29 government processes and working through science  
30 didn't work, so it has pushed me to another phase  
31 where I feel that the public need to hear from me  
32 directly.

33 Q All right. And you've produced virtually none of  
34 your documents to this Commission; is that right?

35 MS. MORTON: Yeah. They're in my blogs, though.

36 Q All right. Now, you say, in your blog, which  
37 we'll return to now, in that sentence beginning,  
38 "I'm really glad,":

39

40 The report is not my work, it is a  
41 compilation of what DFO has been saying.

42

43 The report you're referring to is the document  
44 that was spoken of yesterday that Mr. McDade tried  
45 to get into evidence and it's an exhibit for ID.  
46 It's either BBB or DDD, I can't -- I don't have  
47 good enough hearing to figure out whether -- which



1 of those it is.

2 MS. MORTON: It was marked for identification before  
3 yesterday.

4 Q All right. But you know the -- that's the report  
5 that's being referred to here in the report -- in  
6 the blog, isn't it?

7 MS. MORTON: Yes, correct.

8 Q And then you go on and you state some things and  
9 you state them as fact, and you'll see, at the  
10 bottom of the page on the screen, it says:

11  
12 A DFO scientist tasked to find out why  
13 millions of sockeye are dying just before  
14 spawning found evidence that a virus  
15 associated with cancer is killing them -  
16 fact.

17  
18 That statement is wrong, isn't it?

19 MS. MORTON: It's a fact that she has found evidence.

20 Q You heard Dr. Miller's testimony last week, didn't  
21 you?

22 MS. MORTON: Yes, I did.

23 Q And you heard Dr. Garver's evidence?

24 MS. MORTON: Yes I did.

25 Q And both of them said, "This is a work in  
26 progress," and they are not making -- they have  
27 not reached the conclusion that you put here?

28 MS. MORTON: I don't think "evidence" means a  
29 conclusion; it means evidence.

30 Q I see. And over the page your blog says:

31  
32 The only known place a virus like this occurs  
33 is in the salmon farms on the dying sockeye's  
34 migration route - fact.

35  
36 You know that to be wrong, don't you?

37 MS. MORTON: No, I don't. I don't know anywheres (sic)  
38 else where marine anaemia, salmon leukemia,  
39 plasmotoid (sic) leukemia, parvo, any of those  
40 things have ever been reported, other than the  
41 papers from Dr. Kent, Dr. Stephens, Dr. Ribble,  
42 and others.

43 Q Well, you know that the work that Dr. Miller is  
44 doing is to do with a syndrome that she's  
45 identified, correct?

46 MS. MORTON: You know, the word "syndrome" related to  
47 marine anaemia did not arise until this

1 Commission, until several scientists were on the  
2 stand. Back in the days when they were simply  
3 writing about it, Dr. Kent actually named it the  
4 salmon leukemia virus.  
5 Q I'm talking about Dr. Miller's work. You know  
6 that it's called a syndrome? She is the scientist  
7 and that's what she's termed it as, correct?  
8 MS. MORTON: No, I don't think she is calling it a  
9 syndrome. In a lot of her work, like Exhibit  
10 613G, she ponders salmon leukemia virus --  
11 Q All right.  
12 MS. MORTON: -- and she points to it as coming -- as  
13 the only known source was the salmon farms.  
14 Q I have your evidence, thank you. The next line  
15 says:  
16 DFO's response? Cut off the researcher's  
17 funding.  
18  
19 You know that to be wrong? That's not what Dr.  
20 Miller said, is it?  
21 MS. MORTON: No, she did. She said --  
22 Q No --  
23 MS. MORTON: -- "I don't have any funding to go further  
24 on sockeye."  
25 Q And you know and you heard her evidence that her  
26 staff are at work, being paid. The problem's been  
27 identified as a rules-related problem, it's being  
28 worked on, and a fix has to be found. You've  
29 heard all of that evidence, didn't you?  
30 MS. MORTON: I heard her say she no longer had funding  
31 to work on sockeye.  
32 Q And then you were blind to all of the rest of the  
33 evidence I've just said?  
34 MS. MORTON: I can only believe what she said. Now,  
35 she is going to hopefully go look for parvo in  
36 salmon farms --  
37 Q Would it be more --  
38 MS. MORTON: -- after the aquaculture hearings are  
39 over, but what she said on the stand, and I'm sure  
40 we can find her testimony, is that she had no  
41 further funding to work on sockeye.  
42 Q Would it be accurate to say you just don't pay  
43 attention to what you don't what to hear?  
44 MS. MORTON: I don't think you can hear me. We should  
45 pull up her testimony right now and check that  
46 out.  
47

1 Q Yeah, I'll ask the questions, please. Now, this  
2 blog --

3 MS. MORTON: Is that going to stand in this court?

4 MR. TAYLOR: Mr. Commissioner, this blog was done  
5 contrary to the rules that are in place for this  
6 inquiry, so I'm in your hands as to what to do  
7 with it, at this point. I don't want to make an  
8 exhibit that which is a violation of the rules of  
9 this inquiry. I tend to think it should be an  
10 exhibit for identification. I've read in what I  
11 need to, and leave it at that.

12 THE COMMISSIONER: What's the next identification  
13 number, Mr. Registrar?

14 THE REGISTRAR: GGG.

15 THE COMMISSIONER: Thank you.

16 THE REGISTRAR: Triple G.

17

18 MARKED GGG FOR IDENTIFICATION: Printout of  
19 blog by Alexandra Morton, titled, On the  
20 Stand at Cohen, dated 09/08/2011

21

22 MR. TAYLOR:

23 Q Now, let's continue with your blogging, if we may,  
24 Ms. Morton. Mr. Lunn, may we have the blog that  
25 is August 31st, please? You recognize that as  
26 your blog of August 31st, Ms. Morton?

27 MS. MORTON: Yes, I do.

28 MR. TAYLOR: May that be the next exhibit, please.  
29 Real exhibit.

30 THE REGISTRAR: A real exhibit, okay. 1838 (sic).

31

32 EXHIBIT 1839: Cohen Inquiry Aquaculture  
33 Hearings August 31 - Alexandra Morton

34

35 MR. TAYLOR: A numbered exhibit. Thank you.

36 THE REGISTRAR: Sorry, 1839.

37 MR. TAYLOR: Thank you.

38 Q Now, this, Ms. Morton, deals with the evidence  
39 that the veterinarians gave on August 31st,  
40 doesn't it?

41 MS. MORTON: Yes, that's correct.

42 Q And if we go to page 3, please, this appears to be  
43 a cartoon. That's something you put on the blog,  
44 is it?

45 MS. MORTON: Yes, that's correct.

46 Q And this is a cartoon of what appears to be the  
47 Commissioner speaking to those four witnesses; is

1           that what that is?  
2       MS. MORTON: Yes, that's correct.  
3       Q     And the cartoon is showing flames coming from the  
4            pants of the witnesses, correct?  
5       MS. MORTON: Yes, that's correct.  
6       Q     And as we move from the left of the screen to the  
7            right, that would be Mr. Swerdfager, Dr. -- I'm  
8            going to get it mixed up. Is that Dr. Sheppard or  
9            Last (sic), it's one or the other, and the other  
10          one next to him is Dr. Sheppard or Last (sic), and  
11          then the final one is Dr. Marty; is that right?  
12       MS. MORTON: Yes, that's correct, I believe.  
13       Q     Was Dr. Last one of the witnesses there? In any  
14          event, it's the four -- sorry?  
15       MR. MARTLAND: Dr. McKenzie.  
16       MR. TAYLOR: Dr. McKenzie.  
17       MS. MORTON: Oh yes.  
18       Q     If I said "Last" I meant "McKenzie". So we've got  
19          Swerdfager, Sheppard, McKenzie, and Marty, and the  
20          cartoon is showing them with pants on fire. And  
21          the words that the Commissioner says, in the  
22          cartoon that is, pants on fire, what does that  
23          mean?  
24       MS. MORTON: Well, I'm going to leave that to you. It  
25          just --  
26       Q     Well, you're familiar with the saying --  
27       MS. MORTON: My -- the reason --  
28       Q     -- "Liar, liar, pants on fire"?  
29       MS. MORTON: The reason that I put this up is because  
30          Dr. Gary Marty is reporting symptoms of a disease  
31          that's of enormous significance to this  
32          Commission, and --  
33       Q     Okay, let me ask you this --  
34       MS. MORTON: -- yet Dr. Sheppard does not acknowledge  
35          that that disease exists.  
36       Q     Yeah, that's all fine, we've heard that, but let  
37          me ask you this: Do you agree with me that that  
38          cartoon is disparaging of those witnesses'  
39          evidence? Yes?  
40       MS. MORTON: I felt it was a representation without  
41          saying the words.  
42       Q     Are you saying they lied?  
43       MS. MORTON: How can you look at the symptoms of a  
44          disease, have somebody like Gary Marty report  
45          those symptoms --  
46       Q     My -- my --  
47       MS. MORTON: -- as being the clinical signs of marine

1 anaemia, which a DFO scientist thinks the majority  
2 of Fraser sockeye are being killed and weakened  
3 by, and the vets above him, Peter McKenzie of  
4 Mainstream, and Dr. Mark Sheppard, simply don't  
5 recognize that that disease exists? That is --  
6 Q Ms. Morton --  
7 MS. MORTON: -- it cannot stand.  
8 Q Ms. Morton, as Mr. Kelleher said, this is not - to  
9 Ms. Stewart - this is not an opportunity for you  
10 to make a speech.  
11 MS. MORTON: Well, then --  
12 Q And I ask, again --  
13 MS. MORTON: -- don't ask me questions --  
14 Q -- if you would respect the time limits that I am  
15 under and the questions that I am asking, which I  
16 would like you to answer, and my question was: Do  
17 you agree that that cartoon is disparaging of  
18 those witnesses' evidence?  
19 MS. MORTON: No. I think that their jobs force them  
20 into that position and I feel sorry for them.  
21 Q Do you agree with me that it is against the **Code**  
22 **of Conduct** for a registered biologist to speak  
23 disparagingly of a colleague registered biologist?  
24 MS. MORTON: It is, yes.  
25 Q And can we equally apply that, then, to you should  
26 not be disparaging of other professionals, such as  
27 veterinarians?  
28 MS. MORTON: Mr. Taylor, in my personal code of  
29 conduct, is it when I see --  
30 Q No, I'm asking about the biologists' **Code of**  
31 **Conduct** --  
32 MS. MORTON: -- an ecosystem being destroyed, I will  
33 use what tools I can that are fair and legal to  
34 try to represent that truth.  
35 Q All right. Thank you, I have your evidence.  
36 MS. MORTON: And if a cartoon was the only way I could  
37 do it, that's what I was going to do.  
38 Q Yeah. All right, we'll leave that part of the  
39 evidence there. I think you have my questions and  
40 I have your points.  
41 I want to continue with the September 1st  
42 blog, please. Now, you may recall, Ms. Morton,  
43 that this is following evidence that was given by  
44 what's called Panel 3, which included Kerra  
45 Hoyseth and Brian Atagi and, I think it was,  
46 Andrew Thompson. Were you here for that evidence  
47 last week?

1 MS. MORTON: Yes, I was.

2 Q And you recall Kerra Hoyseth's evidence?

3 MS. MORTON: Yes, I particularly do recall that.

4 Q And you know who she is?

5 MS. MORTON: I hadn't met her until this Commission,  
6 but I've corresponded with her by e-mail.

7 Q All right. And in that blog -- in that September  
8 1st blog, if you move down, Mr. Lunn, to where you  
9 see an e-mail being excerpted. No, it's below  
10 that, that I'm interested in. Thank you. I think  
11 we're at the right place. In that blog you're  
12 referring -- actually, just back up, Mr. Lunn, for  
13 a moment, please. You're firstly referring -  
14 that's fine - September 24, 2008, e-mail that you  
15 can see there on the screen. That's Exhibit 1721,  
16 I'm told. And then, if you move down, Mr. Lunn,  
17 we come to - yes, right there, that's fine, thank  
18 you - there's a reference from Ms. Hoyseth to you,  
19 Ms. Morton, December 13, 2010. I'm told that's  
20 Exhibit 1722.

21 And you'll see there that you've repeated  
22 what Ms. Hoyseth said in that e-mail to you:

23  
24 During the three visits we collectively  
25 undertook, there were no further bubbles  
26 seen, nor any information we could find to  
27 explain your observations.

28  
29 And that's the e-mail that's Exhibit 1722. And  
30 this concerns a report that you'd made about some  
31 bubbles, and we've heard some evidence, I think,  
32 yesterday about that. And if we keep going, we're  
33 going to have to get beyond that word "doing", Mr.  
34 Lunn, if we can roll to the next page without  
35 losing this page, too. Thank you.

36 And you speak about everyone knows rotting  
37 gases -- this is your blog, now. And then you  
38 say:

39  
40 I suspect Hoyseth's first instinct was to be  
41 more truthful, but I think this painfully  
42 illustrates DFO's relationship with fish  
43 farms. How can I believe anything DFO says  
44 about salmon farms after this? Hoyseth did  
45 not tell me the truth and I feel badly for  
46 her because I suspect this was what was  
47 expected of her. How many others in DFO are

1                   doing the same thing just to keep their job?  
2

3                   Now, again, you are accusing, as I read this, Ms.  
4                   Hoyseth of not telling the truth; do you agree  
5                   with me?

6                   MS. MORTON: Yes, that's correct.

7                   Q     And why would you make that accusation against  
8                   someone?

9                   MS. MORTON: Because in the series of e-mails, they  
10                  noted that they went to the place where the member  
11                  of the community had reported bubbles and they  
12                  found a pipe full of dead Atlantic salmon. And so  
13                  that does address my concerns. That was very  
14                  specific to my concerns.

15                 Q     All right. But you have no evidence that she was  
16                  not telling the truth, do you? You just don't  
17                  agree with what she was finding and/or her  
18                  interpretation of it? You have a different  
19                  interpretation?

20                 MS. MORTON: Mr. Taylor, a pipe full of rotting salmon,  
21                  and Ms. Hoyseth, I'm sure, understood that that  
22                  could easily produce bubbles. But it was my  
23                  interpretation that she did not want to report  
24                  that to me, and so she glossed over the finding of  
25                  that entire mort pipe full of rotting fish.

26                 Q     Thank you. You've just answered it, because you  
27                  used the word "interpretation". Now, you say:

28  
29                                 How many others in DFO are doing the same  
30                                 thing to keep their job?  
31

32                                 You have no evidence to support that accusation  
33                                 that people in DFO do things just to keep their  
34                                 job or don't tell the truth just to keep their  
35                                 job, do you?

36                 MS. MORTON: I actually do, but I'm not going to reveal  
37                  all my sources, because they're scared. So this  
38                  was one example that was documented, and I wanted  
39                  it to come before this Commission as a symptom of  
40                  what goes on. It's a very serious situation when  
41                  you have -- how could you look at a pipe full of  
42                  fish --

43                 Q     All right. We don't need to go --

44                 MS. MORTON: -- and not think --

45                 Q     -- back over that.

46                 MS. MORTON: -- that addresses someone's concerns about  
47                  bubbles?

1 Q I'm going to exercise --  
2 MS. MORTON: But can you answer that?  
3 Q Without meaning to be uncivil, I'm going to try  
4 and exercise some fair constraint on your  
5 evidence, because I'm under, as we all are, time  
6 limitations and I --  
7 MS. MORTON: Okay.  
8 Q -- have material to cover. Do you believe that  
9 DFO officials, and there's many of them who've  
10 appeared before this Commission so far, and DFO  
11 officials and scientists with whom you have  
12 interacted on aquaculture issues, are honest and  
13 of integrity?  
14 MS. MORTON: I've had some experiences that have made  
15 me doubt that.  
16 Q On the whole, do you think they are?  
17 MS. MORTON: On the whole I think they're uninformed.  
18 Q I see. Do you think they're honest?  
19 MS. MORTON: On the whole, I think they would be  
20 honest, yes.  
21 Q and of integrity?  
22 MS. MORTON: I think they do put their job first.  
23 Q Do you believe that sea lice are generated by  
24 farms, then transmitted to wild, and then kill  
25 wild stocks in sufficient numbers to have a  
26 measurable and significant negative effect on wild  
27 sockeye populations?  
28 MS. MORTON: Yes.  
29 Q So you disagree with the likes of Dr. Korman,  
30 Noakes, Connors, Jones, Beamish, Hargreaves,  
31 Johnson?  
32 MS. MORTON: You're asking me if that is possible and I  
33 said, "Yes." If there are enough lice on those  
34 fish --  
35 Q I see.  
36 MS. MORTON: -- it would definitely kill them.  
37 Q Thank you. So that's your belief. That's your  
38 perspective, is it? Is that right?  
39 MS. MORTON: Well, I mean, you put me on this panel as  
40 a layman, but you don't recognize that I've done  
41 over 20 papers on sea lice.  
42 Q Well --  
43 MS. MORTON: So I've done a lot of work where I've  
44 actually viewed the impact of the lice on pink and  
45 chum salmon, but also on sockeye. But I haven't  
46 done the experimental work of the sockeye, holding  
47 them as I did with the pink and chum.



1 Q All right. Thank you. I believe your  
2 participation on this panel is important, but just  
3 to be clear, I didn't put you on the panel, the  
4 Commission Counsel, of course, did.

5 Do you believe that escapes of Atlantic  
6 salmon from fish farms have had or are having a  
7 significant negative effect on wild populations?

8 MS. MORTON: I think that they have in the past, but I  
9 think that it's less so now.

10 Q Thank you. Ms. Stewart, I'm going to turn to you,  
11 if I may. Are you aware that DFO has set about to  
12 review the conditions of licence that are  
13 currently in place?

14 MS. STEWART: I've been told that, yes.

15 Q And that DFO invites input?

16 MS. STEWART: Yes. They have an interesting way of  
17 going about it. Sometimes we're on the recipient  
18 list of information, and sometimes we're not.

19 Q Well, Mr. Swerdfager has told you about outreach  
20 and wanting to receive input, hasn't he?

21 MS. STEWART: Yes. We've provided plenty of input  
22 during the development of the Pacific Salmon  
23 Regulations and after they were adopted.

24 Q Thank you. You've anticipated my next question,  
25 which is whether you provided input and you've  
26 answered, "Yes." Are you and your organization  
27 prepared to work collaboratively with DFO and  
28 others in a constructive, consultative process for  
29 identifying useful and appropriate changes to the  
30 licence terms?

31 MS. STEWART: I think that the member groups of CAAR  
32 have amply demonstrated our willingness to attempt  
33 to engage in a constructive process. I think, to  
34 a large degree, it comes down to a question of  
35 whether the process that is created by the  
36 Department is designed to be constructive.  
37 Sometimes there's a tendency for the Department to  
38 come in with their minds made up and consultation  
39 is more for show than it is for real engagement  
40 and input and consideration. So it remains to be  
41 seen what the process design is.

42 Q All right. Thank you. I think we've reached an  
43 accord or agreement on the concept, and now it's a  
44 matter of operationalizing it, and different  
45 people might have different thoughts on that, but  
46 you agree with the premise that I was putting  
47 forward, I hear from your answer, so thank you for

1 that.

2 Ms. Morton, what about you, are you willing  
3 to work collaboratively with others towards a  
4 process that sees what useful and appropriate  
5 amendments should be made or additions made to the  
6 conditions of licence?

7 MS. MORTON: If the Fraser sockeye migration route was  
8 cleared of salmon farms, I think we would have  
9 time to take a breather and work collaboratively,  
10 or try. But I've been trying that for 20 years.  
11 I've worked with Brent Hargreaves, I've visited  
12 with Dick Beamish, to bring him the findings that  
13 I found from the pink and chum in the Broughton  
14 Archipelago, before he published his reports, to  
15 give him a courtesy heads up.

16 I, actually, see the collaborative, as it's  
17 called, process as more of a process of delay,  
18 because I've engaged in every single government  
19 process, I have written scientific papers, and  
20 when I see Dr. Miller's work, where she's finding  
21 the majority of Fraser sockeye are weakened and  
22 dying of a virus that appears to be coming from  
23 salmon farms, and then I heard that the salmon  
24 farmers don't believe that that virus exists, even  
25 though they did 10 years ago, I don't want to work  
26 on --

27 Q All right.

28 MS. MORTON: -- collaborating.

29 Q We've heard you on that. In terms of  
30 collaboration, I take your evidence to be unless  
31 your first condition, which is moving the farms,  
32 is met, you won't work collaboratively; is that  
33 what you're saying?

34 MS. MORTON: I just --

35 Q Yes or no?

36 MS. MORTON: No.

37 MS. STEWART: I'd just like to add that at the same  
38 time that CAAR is willing to attempt to engage in  
39 a constructive way with government officials and  
40 with industry, we are also, parallel to that,  
41 running campaigns in the marketplace, engaging  
42 with retailers, and working to try and convince  
43 the government that it's time to change practices  
44 within the industry to, you know, try and mitigate  
45 the damage that's currently underway, while  
46 developing a transition strategy to get net cages  
47 out of the water. We're seeking support for

1 closed containment pilots. We're working on  
2 change, not just modifying regulations for open  
3 net cages.

4 Q All right. Ms. Stewart, are you aware of the  
5 annual budget assigned to DFO science in the  
6 Pacific region?

7 MS. STEWART: No, not --

8 Q Approximately?

9 MS. STEWART: Not currently. I have looked at those  
10 figures in the past, but not recently.

11 Q Well, if I told you that it's approximately 40  
12 million dollars, is that in the range of what you  
13 understand it to be, from what you previously saw?

14 MS. STEWART: It wouldn't surprise me.

15 Q And that's a significant amount of money, isn't  
16 it?

17 MS. STEWART: Sure.

18 Q And a lot of that is for salmon?

19 MS. STEWART: Yes.

20 Q Salmon is the one species that gets probably more  
21 money than any other fishery, isn't it?

22 MS. STEWART: I think that's a fair assessment. Well,  
23 certainly on the west coast, yes. Yes. But mind  
24 you, there could be a lot more put into that if  
25 there weren't so many subsidies going to the  
26 aquaculture industry and the marketing of  
27 aquaculture products.

28 Q Well, I suppose that's a matter of balancing and  
29 different things that need to be addressed, isn't  
30 it?

31 MS. STEWART: It's a question of priorities, and I  
32 think I know where most British Columbians would  
33 put their priorities.

34 Q May we have Exhibit 1836, please? This is the  
35 document that Mr. Leadem put to you. Now, under  
36 Perspectives, which is the second heading there,  
37 it says:

- 38  
39 • Safeway did eventually respond to Greenpeace  
40 questionnaire  
41 • Do not plan to change purchasing decisions  
42 based on Greenpeace recommendations, however,  
43 they feel somewhat anxious about possible  
44 repercussions of this decision.  
45

46 It appears that Safeway didn't accept the overture  
47 that you put to them; is that your understanding?

1 MS. STEWART: We've actually been working quite  
2 constructively with Safeway, and last fall, at our  
3 request, they wrote a letter to the Prime Minister  
4 of Canada, supporting Federal Government  
5 investment in closed containment pilot projects  
6 and expressing their support for that program and  
7 their interest in the availability of said  
8 products on the marketplace.

9 Q Okay, good. That's very helpful. Thank you. If  
10 we may have Exhibit 1594 now, please? This is the  
11 Terms of Licence, Finfish Aquaculture. We should  
12 go to the first page first, if we may.

13 Now, Ms. Stewart, you recognize that as the  
14 form of licence for finfish aquaculture under the  
15 Federal regime, do you?

16 MS. STEWART: Yes, that was a document made public,  
17 yes.

18 Q And this is something you've looked at before?

19 MS. STEWART: Yes.

20 Q And Ms. Morton, are you familiar with this, too?

21 MS. MORTON: Yes, I've looked it over.

22 Q All right. And I'm not ignoring Mr. Backman and  
23 Ms. Parker, but you can see that my questions are  
24 for the others and I'm quite confident that both  
25 of you are well familiar with this document, and  
26 Ms. Parker in particular spoke to some of it  
27 yesterday.

28 I'd like to go, if I may, to section 13,  
29 which, depending on how you count the pages, and  
30 rather inconveniently, the licence, itself,  
31 doesn't seem to have page numbers, at least as  
32 it's printed here, but it might be something  
33 called page 16. Section 13. You're partway  
34 through 13, now, I think.

35 This is Protection of Fish Habitat. You're  
36 familiar with this area of the licence, are you,  
37 Ms. Stewart?

38 MS. STEWART: Yes. I mean, I don't know the licence  
39 off by heart, but I have certainly read all 90-  
40 some-odd pages.

41 Q All right. And you're aware that DFO has the  
42 power to inspect records on site at the fish  
43 farms?

44 MS. STEWART: Yes.

45 Q And they have the ability to compel production of  
46 records, in other words, to take a copy, correct?

47 MS. STEWART: Yes.

1 Q And do you know whether they've exercised that  
2 power?  
3 MS. STEWART: No.  
4 Q Do you know, Mr. Backman?  
5 MR. BACKMAN: We have been visited by the Fisheries and  
6 Oceans inspectors.  
7 Q All right. And they've looked at records?  
8 MR. BACKMAN: Yes, when they come to the farm they  
9 immediately look at the records that are being  
10 kept.  
11 Q And have they taken some records away, in some  
12 cases?  
13 MR. BACKMAN: I can't say for certain right now,  
14 whether they've taken records away, but we have  
15 had visits and we have had records inspected.  
16 Q All right. Thank you. And we won't go through  
17 them, Ms. Stewart, but there's a whole series of  
18 things that fish farms have to keep records on,  
19 here, to do with protection of fish habitat?  
20 MS. STEWART: Yes, there's self-reporting by the  
21 industry, yes.  
22 Q All right. And you agree with me that that's all  
23 useful information to have both for the industry  
24 and for DFO in terms of monitoring and enforcement  
25 as to habitat measures?  
26 MS. STEWART: Provided that it's accurate.  
27 Q Yes, of course, provided that it's accurate. But  
28 assuming that, it's useful information, isn't it?  
29 MS. STEWART: If you want to assume that. I mean, I'm  
30 not necessarily going to assume that in all cases  
31 the industry is reporting accurately on what  
32 transpires on the farms. I think that there has  
33 been incidences where things are perhaps  
34 misrepresented or not accurately reported.  
35 Q Well, without passing judgment on whether it is or  
36 isn't, you're aware, or will you agree with me  
37 that DFO has the power to do things to find out if  
38 the information is accurate or not? They can  
39 inspect, they can take the records, and so forth?  
40 MS. STEWART: They can inspect, they can take the  
41 records, but it's not always going to be evident  
42 if there's been misreporting.  
43 Q And more specifically -- well, DFO can look at the  
44 actual goings on?  
45 MS. STEWART: If a sea lion gets tangled in a net and  
46 drowns and then the carcass is disentangled and  
47 let go and the farm does not report the accidental

1 death, how is DFO going to have evidence if there  
2 was an accidental death?  
3 Q All right. Specifically, 13.10(c), which is  
4 further down. For the witness, I think we should  
5 let her see this. As we're going there, my  
6 question is: Do you agree that this provision  
7 allows the Department of Fisheries to require  
8 habitat compensation where appropriate? It's at  
9 the bottom of the -- or the middle of the screen  
10 there.  
11 MS. STEWART: Yes, I believe in the actual regulation  
12 it says that it "may" be required, not that it  
13 will be.  
14 Q Well, the licence says, they "shall" do it.  
15 MS. STEWART: Hold on.  
16 Q But whether it's "may" or "shall", it's a power  
17 that exists, isn't it?  
18 MS. STEWART: It does, yes, the power does exist.  
19 Q And you accept that DFO, Mr. Backman, DFO can  
20 require compensation re habitat as appropriate?  
21 MR. BACKMAN: Yes, that's commonly -- commonly carried  
22 out by the Department.  
23 Q All right. And these are all steps in s. 13  
24 designed to deal with deleterious substance, HADD,  
25 and any number of fish habitat issues, aren't  
26 they, Ms. Stewart?  
27 MS. STEWART: You'd have to show me where the  
28 deleterious substances are addressed in this  
29 section.  
30 Q Well, I'm not -- I don't know if I want to take  
31 the time to do that right now, but --  
32 MS. STEWART: Well, it's my understanding that there's  
33 no regulation in place. I mean, in conversations  
34 with DFO they have admitted as much.  
35 Q Well --  
36 MS. STEWART: You heard Trevor Swerdfager --  
37 Q That's fine --  
38 MS. STEWART: -- testify that they don't have a  
39 regulation.  
40 Q Okay. Let's leave deleterious substance out of  
41 the equation.  
42 MS. STEWART: Well, you raised it.  
43 Q Would you agree with me that this is a series of  
44 provisions that allow Fisheries to require proper  
45 fish habitat protection to occur?  
46 MS. STEWART: Well, I think it depends on how you  
47 define "proper" fish habitat --

1 Q All right.  
2 MS. STEWART: -- protection, but --  
3 Q Do you want to add anything to this, Ms. Parker or  
4 Mr. Backman?  
5 MR. BACKMAN: Well, I would say that for the previous  
6 discussion there's a section in here, it is 90  
7 pages long, so I can appreciate that it's  
8 difficult to remember everything that is in it but  
9 there's a section specifically for the recording  
10 of chemicals and other substances used on the farm  
11 site, and our -- all of our company's operating  
12 sites are continuing to report and to record this  
13 information.  
14 Q All right. Thank you. Ms. Parker?  
15 MS. PARKER: And if I could just add on the industry's  
16 self-reporting, I think that in these economic  
17 times, particularly, but in general, there is a  
18 trend towards user-pay management in which  
19 industry does do their own monitoring and report,  
20 and then regulated resources are then applied to  
21 auditing and investigation, and I think that  
22 that's appropriate, because then you get a two-  
23 tiered monitoring which allows both compliance  
24 efforts and also verification of whether or not  
25 mitigation measures are actually working. So you  
26 have two sets of eyes on it regularly, so you can  
27 confirm whether or not things are being done  
28 properly and also whether or not your measures are  
29 being effective.  
30 Q All right.  
31 MR. BACKMAN: I'll just quickly mention, too, that  
32 marine harvest, for example, has been ISO-14000  
33 certified for over 10 years, and the key point of  
34 that certification is complying with all  
35 regulatory aspects for the industry. That's a  
36 third-party audit that occurs every year.  
37 Q All right. Ms. Morton, am I correct that you  
38 published a paper in 2007 with Professor Krkosek.  
39 I mispronounce that, I'm sorry.  
40 MS. MORTON: Krkosek.  
41 Q Krkosek, thank you. Which I don't have that paper  
42 at hand, I think. But do you recall that paper,  
43 and was it one where you and the other authors  
44 were predicting the extinction of the pink salmon  
45 in the Broughton; do you recall that?  
46 MS. MORTON: Yes, that's in the *Journal of Science*.  
47 Q Thank you. And that's quite an alarming

1 prediction, isn't it?

2 MS. MORTON: Yes. We said, if nothing changed, that  
3 the fish would remain on their trajectory towards  
4 extinction.

5 Q And that hasn't happened, has it?

6 MS. MORTON: There was enormous change. When that work  
7 was done, when I first found sea lice, there was  
8 an average of 11 lice per juvenile salmon. But as  
9 the salmon farming industry responded to the  
10 pressure by CAAR and the various papers, the  
11 average number of sea lice has gone down to .3.

12 Q All right.

13 MS. MORTON: And that had a profound effect.

14 Q Now, you're aware that Professor Brooks published  
15 two papers to counter that paper; did he?

16 MS. MORTON: Yes, he did.

17 Q And those are exhibits, I think, for the record, I  
18 think they are - we don't need to go to them - but  
19 I think they are Exhibits 1778 and 1779.

20 Ms. Morton, I want to ask you about some  
21 protests that you may have participated in against  
22 fish farms, and there's nothing wrong with that,  
23 of course. You have participated in protests  
24 against fish farms at the farm site, haven't you?

25 MS. MORTON: Yes, I have.

26 Q And you did that in a way that you and others got  
27 very close to the actual site and the pens and/or  
28 may have gone into the site, itself; is that  
29 right?

30 MS. MORTON: No, we never go into the pens.

31 Q I see. And you did that, despite there being some  
32 signs that say "no trespassing", quite prominent  
33 signs?

34 MS. MORTON: First of all, there were no signs at that  
35 farm. Second of all, it's actually illegal to put  
36 a "no trespassing" sign on a marine farm that has  
37 a licence of occupation. Mainstream tried that  
38 for a little while, but they were told to remove  
39 those. So it was a temporary situation, because  
40 it was unlawful.

41 Q All right. In one of these protests, not  
42 yourself, but someone was swimming in the vicinity  
43 of the net pens, weren't they?

44 MS. MORTON: Yes, that's correct.

45 Q And you're aware of the concept of biosecurity; is  
46 that right?

47 MS. MORTON: I've heard the concept raised several



1 times -- actually, numerous times in these  
2 hearings.  
3 Q You've heard the concept but you're not familiar  
4 with it?  
5 MS. MORTON: Well, it's confusing to me how a farm  
6 could consider a biosecure situation when the  
7 reason that they use the nets is so that millions  
8 of gallons of water will pass through the farm  
9 from inside to the outside, so --  
10 Q No, we're talking about --  
11 MS. MORTON: -- the concept is confusing to me.  
12 Q Well, all right, and you say that as a registered  
13 biologist, do you?  
14 MS. MORTON: Yes. Yes.  
15 Q All right.  
16 MS. STEWART: Well, I would agree that it's inherently  
17 contradictory. You can't secure, biologically, an  
18 open net pen that relies on tidal flushing and the  
19 free flow of water. There's no securing  
20 possible --  
21 Q Well, Ms. Stewart --  
22 MS. STEWART: -- which is why we're advocating for  
23 closed contained systems.  
24 MR. TAYLOR: Ms. Stewart, are you -- oh, it's 12:30.  
25 Do you want me to stop or continue?  
26 THE COMMISSIONER: I'd appreciate it, Mr. Taylor, thank  
27 you.  
28 MR. TAYLOR: Sorry?  
29 THE COMMISSIONER: We'll take the lunch break now,  
30 please.  
31 MR. TAYLOR: All right.  
32 THE REGISTRAR: The hearing will now adjourn until 2:00  
33 p.m.  
34  
35 (PROCEEDINGS ADJOURNED FOR NOON RECESS)  
36 (PROCEEDINGS RECONVENED)  
37  
38 THE REGISTRAR: Hearing is now resumed.  
39 THE COMMISSIONER: Mr. Martland?  
40 MR. MARTLAND: Yes, Mr. Commissioner, our timing is  
41 such Mr. Taylor has six minutes remaining. We are  
42 on track, but we need to conclude today's hearing  
43 at 4:00 and so I'll just remind all counsel I'll  
44 be doing hand signals or whatever it takes to  
45 carry things on through the day.  
46 Mr. Taylor?  
47

1 CROSS-EXAMINATION BY MR. TAYLOR, continuing:  
2

3 MR. TAYLOR: Before lunch, Mr. Commissioner, I was  
4 referring to a blog and Ms. Morton gave some  
5 evidence on it and I kept saying September 1st.  
6 It's actually September 5th, so that's my mistake.  
7 And I also omitted marking it as an exhibit. It's  
8 up on the screen. May that be the next exhibit,  
9 please?

10 THE REGISTRAR: That document will be marked as 1840.  
11

12 EXHIBIT 1840: Blog entitled Unwanted  
13 Trespass!!!! Dated September 5, 2011  
14

15 MR. TAYLOR: And for the record, there was reference in  
16 the evidence this morning, as I understand it,  
17 that Ms. Morton was referring to Dr. Miller  
18 speaking about salmon leukemia. That might be in  
19 reference to an old deck that Dr. Miller had, but  
20 that's not her current evidence. I don't need to  
21 go further into that. The evidence speaks for  
22 itself on the record.

23 Could I have Tab 18, please, of Canada's book  
24 please, Mr. Lunn? This is a report on closed  
25 containment that was commissioned by the  
26 Department of Fisheries and Oceans. It's dated --  
27 I'll get it mixed up slightly, but it's September  
28 or November of 2010. It's on the next page, Mr.  
29 Lunn. September. And that's something, as I say,  
30 that was commissioned. It's a feasibility study.  
31 I'm not going to ask any questions of it but I'm  
32 going to ask that it be marked as an exhibit,  
33 please.

34 THE REGISTRAR: 1841.  
35

36 EXHIBIT 1841: Feasibility Study of Closed-  
37 Containment Option for British Columbia  
38 Aquaculture Industry  
39

40 MR. TAYLOR:

41 Q I will point out that on the second page, little  
42 Roman numeral vii, there's a reference there to  
43 economic feasibility, near the top. Mr. Backman,  
44 maybe I'll ask you. Are you familiar with the  
45 relative cost of closed containment versus open  
46 net pens?

47 MR. BACKMAN: Yes.

- 1 Q To set up the facility, that is?  
2 MR. BACKMAN: I am.  
3 Q And what is it?  
4 MR. BACKMAN: It's roughly ten times greater for --  
5 well, yeah, about ten times greater. The figures  
6 are roughly three million for the open net and  
7 about 30 million for a comparable facility using  
8 the RAS technology.  
9 Q And maybe you could just say what RAS is?  
10 MR. BACKMAN: Recirculating Aquaculture System, so it's  
11 fully closed. Everything is recirculated.  
12 Q Thank you. And Mr. Backman, is it fair to say  
13 that the state of affairs in play with regard to  
14 closed containment right now is that there are  
15 studies that are underway, pilot projects  
16 underway, more study and pilots should be done but  
17 it's early days and too early to draw conclusions?  
18 MR. BACKMAN: Yeah. There's been some work done in  
19 this area in B.C. Marine Harvest has been  
20 involved with it in the past, floating bags that  
21 weren't closed. But moving to fully-closed  
22 systems, it's currently under development in terms  
23 of full-size harvest growing.  
24 Q Ms. Stewart, would you agree that it's still early  
25 days in terms of the development of technology and  
26 agree further that study pilots should -- study  
27 and pilots should continue?  
28 MS. STEWART: I would agree that it's early days in the  
29 development of the technology for salmon. It has  
30 been applied to other species elsewhere. It is in  
31 use for salmon in other jurisdictions and I  
32 believe that B.C. needs to move forward rapidly on  
33 work in this province for salmon.  
34 Q So you're saying in short keep going. You might  
35 differ with some others in terms of the pace, but  
36 keep going is what you say.  
37 MS. STEWART: I'd say start going.  
38 Q All right.  
39 MS. STEWART: I mean, there's a couple of very  
40 preliminary pilots underway, but we need to do a  
41 lot more.  
42 Q All right. Thank you. Next, there's a letter to  
43 Ms. Morton from CFIA, Mr. Lunn, I'm interested in,  
44 but I regret to say I can't point you to where it  
45 is.  
46 MR. LUNN: Can you just describe it?  
47 MR. TAYLOR: Yes, it's May 20, 2011, hopefully came to

1           you earlier today. Letterhead is Canadian Food  
2           Inspection Agency addressed to Ms. Morton. And  
3           it's from a Ms. Swan.

4       MR. LUNN: (Indiscernible - away from microphone).

5       MR. TAYLOR: If it's not going to work within my  
6           allotted 1.5 minutes, I'll just leave it.

7       Q     Ms. Morton, do you recall getting a letter in May  
8           from the Canadian Food Inspection Agency?

9       MS. MORTON: I did get one letter from them. I've  
10          gotten several emails however. Are you referring  
11          to an email?

12       Q     No, I'm referring to a letter that thanked you for  
13          your report of April 28th and pointed out they  
14          will fully consider the information that you  
15          provided and will take appropriate steps. I can  
16          show you the letter, if you like. Did you receive  
17          that letter? Does that refresh your memory?

18       MS. MORTON: I probably did.

19       MR. TAYLOR: Okay. Thank you. We'll sort out where  
20          that letter is in the computer later and I'll ask  
21          that it be an exhibit at that point. Oh, it's up  
22          now. May that be the next exhibit, please?

23       MS. MORTON: Oh, yes, I did receive this, where they  
24          requested the third email. That's right.

25       THE REGISTRAR: It will be 1842:

26       MR. TAYLOR: Thank you.

27

28                   EXHIBIT 1842: Letter from Carole Swan,  
29                   Canadian Food Inspection Agency to Alexandra  
30                   Morton stamp dated May 20, 2011

31

32       MR. TAYLOR:

33       Q     And that letter is just what it says in response  
34          to the report you made that is the result of some  
35          information you got in this inquiry, isn't it?

36       MS. MORTON: Yes.

37       Q     Finally, and I've got about 30 seconds probably,  
38          if we could go to Exhibit DDD, page -- mine prints  
39          a little differently than some of the copies I've  
40          seen, so it's page 59 or 60. I spoke to this  
41          yesterday when this report came up in the context  
42          of whether it would or wouldn't be an exhibit  
43          proper. We're in the right place. Thank you.

44                   Now, under "Conclusion" in the second  
45          paragraph at the end of that paragraph you say:

46

47                   What Miller found ran deeply against DFO

1 policy. The sockeye appear to be dying of a  
2 cancer-causing virus that originated in  
3 salmon farms on the narrowest portion of the  
4 Fraser sockeye migration route.  
5

6 I'm going to put it to you that that statement  
7 that you make there is contrary to Dr. Miller's  
8 evidence and ask you to say you agree with me or  
9 you don't. I don't need anything more than that.

10 MS. MORTON: I don't agree with you because she said  
11 she had no further place to go with salmon  
12 leukemia because nobody had done the work to  
13 sequence the virus.

14 Q All right. And the evidence, of course, will  
15 speak for itself. At the bottom of that page you  
16 say:

17  
18 Canada has no mechanism to react to the  
19 threat of exotic viruses that are travelling  
20 in farmed salmon eggs worldwide.  
21

22 You know full well that there's quite a rigorous  
23 egg importation protocol and regime in place in  
24 British Columbia, don't you?

25 MS. MORTON: No, sir, there is not.

26 Q All right.

27 MS. MORTON: The fish health certificate does not have  
28 infectious salmon anaemia on it.

29 Q All right. Thank you. I have your evidence on  
30 that.

31 And then you say over my next page - I'm in a  
32 paragraph that begins:

33  
34 Canada has no mechanism...  
35

36 The one we were in. Yes. Right there. And  
37 you'll see there as you go partway through the  
38 paragraph there it says:  
39

40 DFO policy is to promote salmon farms. They  
41 are being pressured --  
42

43 I think that means pressured.  
44

45 -- by the salmon farming corporations to do  
46 so and field staff seem unable to communicate  
47 accurately about salmon farm impacts.

1

2 That's your interpretation of DFO policy I take  
3 it, is it?

4 MS. MORTON: That's my personal experience.

5 Q All right. But that doesn't accord with the  
6 evidence in this inquiry from people such as Mr.  
7 Thomson or Mr. Swartfeger, does it?

8 MS. MORTON: Well, if you would allow my 60-page  
9 document to go in as evidence, there is evidence  
10 there. I was also a reviewer for Dr. Beamish's  
11 paper with the *ICES Journal of Marine Science*. I  
12 also viewed Dr. Jones' laboratory experiment on  
13 juvenile pink salmon sea lice, so I actually have  
14 enormous experience and I'm sorry that we weren't  
15 able to talk to that, speak to that.

16 MR. TAYLOR: And at this point my time is up, as well.  
17 So I will sit down.

18 MR. MARTLAND: Mr. Commissioner, counsel for the  
19 Province with 30 minutes.

20 MR. PROWSE: Yes. Mr. Commissioner, Cliff Prowse for  
21 the Province of British Columbia.

22

23 CROSS-EXAMINATION BY MR. PROWSE:

24

25 Q I have a few miscellaneous points that have  
26 arisen. My first one, Mr. Backman -- Mr. Lunn,  
27 can we have I think it's Exhibit 1838 on the  
28 screen? Yes. Mr. Backman, Mr. Leadem ran out of  
29 time and you've had your hand up with respect to  
30 some evidence that was being given about this  
31 particular document; is there something that you  
32 wanted to say to address it? I believe it was on  
33 different -- it was on processes and substance of  
34 certifications.

35 MR. BACKMAN: Yes. Thank you. The point that I wanted  
36 to bring up was that the testimony that was  
37 brought forward was suggesting that the most  
38 important certification schemes were those that  
39 are, you know, aligned with the ENGOs working with  
40 Monterey Bay Aquarium and that sort of thing and  
41 whereas we're aware of these programs, these  
42 purchasing standard style of programs, industry is  
43 also hard at work on wide-ranging and very  
44 comprehensive certification programs that are  
45 internationally recognized. I've had an  
46 opportunity to mention that the marine harvest is  
47 currently certified under the ISO 14000 which is

1 an international standards organization program  
2 which has -- its cornerstone is an environmental  
3 management system. But beyond that there are --  
4 currently there are existing certification systems  
5 that are specifically designed for farmed salmon.  
6 They cover both the practices that occur on the  
7 farms and they cover the environmental impacts.

8 There are a number of these that are in place  
9 today and have been in place for some time. A  
10 couple are the Certified Quality Salmon program  
11 and the Global GAP or Good Aquaculture Practices  
12 programs. So these have many years, ten or 15  
13 years of operation and they tend to be the  
14 foundational piece upon which some of these other  
15 certification programs are currently being  
16 developed, and I'm thinking of the World Wildlife  
17 Fund, salmon aquaculture dialogue and the ASC  
18 program that they are putting together and the  
19 Global Aquaculture Association Alliance is also  
20 putting together another certification. These are  
21 focusing almost entirely on the environmental  
22 aspects, the impacts of salmon farming, and so  
23 there's -- what I'm trying to say, Mr.  
24 Commissioner, it's a very busy area. There is a  
25 lot of work going on and it's in flux, both of  
26 those last two ecolabels that I mentioned are not  
27 available at this point in time and so, for  
28 example, Marine Harvest is currently pursuing our  
29 Global GAP or Global Good Aquaculture Practice  
30 certification, which is an internationally  
31 recognized certification for salmon farming.

32 MS. STEWART: Just a correction. I want to emphasize  
33 that the Monterey Bay program and the Sea Choice  
34 program are not certification systems. They are  
35 ranking and consumer advisory systems. And CAAR  
36 is also participating in the salmon aquaculture  
37 dialogue, but many of the certification standards  
38 that are out there right now are based on food  
39 quality health and safety and are very thin when  
40 it comes to environmental standards, which is why  
41 it will be interesting to see where the SAD  
42 standards go. Marine Harvest and CAAR are both  
43 engaged in that and have been since its inception.

44 Q Thank you. Ms. Stewart, I was intrigued this  
45 morning with respect to the back and forth, if I  
46 can use that expression, with respect to Safeway  
47 in California and also with respect to the funding

1 that had been obtained from the Moore Foundation  
2 with respect to one proposal that unfortunately  
3 has yet to go ahead. I'm going to read you a  
4 statement from the Moore Foundation and ask  
5 whether you agree with it and it's really to do  
6 with money and we've heard from many scientists  
7 and many others that -- about things that could be  
8 done with money for research and other things and  
9 here's the statement [as read]:

10  
11 With governments and public institutions  
12 around the world struggling with severe  
13 funding constraints, the not-for-profit  
14 sector is in a position to have unprecedented  
15 influence in tackling complex and  
16 inordinately challenging but tractable social  
17 problems.

18  
19 Do you agree with that?

20 MS. STEWART: I think that if philanthropic funding can  
21 assist the government in fulfilling its  
22 obligations, then that is probably beneficial to  
23 society as a whole. I just want to point out that  
24 you reference the Moore funding that was available  
25 for one specific proposal. That was not the case.  
26 Moore committed \$5 million to the development of  
27 closed containment in British Columbia and that  
28 was not necessarily associated with a Marine  
29 Harvest pilot or any other pilot. It was to try  
30 and move forward the technology.

31 Q And thank you for that. And the president then  
32 says:

33  
34 To effect major change will require a  
35 combination of unbridled aspiration and  
36 creativity, a relentless commitment to  
37 execution and a disciplined will to monitor,  
38 learn and improve.

39  
40 Do you agree with that? And he's obviously  
41 speaking from the point of view of the -- his  
42 foundation and the people that they fund. Do you  
43 agree with that statement?

44 MS. STEWART: Could you read it again?

45 Q

46 To effect major change will require a  
47 combination of unbridled aspiration and



1                   creativity, a relentless commitment to  
2                   execution and a disciplined will to monitor,  
3                   learn and improve.  
4

5       MS. STEWART: Sure. It sounds reasonable.

6       Q     Thank you. The third I'll call miscellaneous  
7             point is when -- for you, Ms. Morton, and it has  
8             to do with your undergraduate education. So I  
9             concede that it's not an important topic perhaps,  
10            but it's one that's piqued curiosity. You have a  
11            bachelor's degree in science from 1977?

12       MS. MORTON: Yes, I do.

13       Q     And what was the discipline?

14       MS. MORTON: Interdisciplinary.

15       Q     And did you do a thesis?

16       MS. MORTON: No, I did not.

17       Q     All right. So I'm now going to ask some questions  
18             about relative expertise and then I'm going to ask  
19             you a few questions about some of your research.  
20             So we've -- first of all, you don't have a  
21             Master's degree or a Ph.D. or veterinary degree or  
22             pathology specialty; is that correct?

23       MS. MORTON: That's correct. I simply have an Honorary  
24             Doctorate.

25       Q     And you don't have an advanced degree in  
26             mathematics or epidemiology?

27       MS. MORTON: No.

28       Q     In your c.v. and again this may not be an  
29             important point, but I think I'll ask it anyway,  
30             it shows - at least the copy that I have - as --  
31             it has a discrepancy date. It says 1988,  
32             registered professional biologist and then it says  
33             2002 certified as a registered professional  
34             biologist number 1414. Can you explain the  
35             difference in dates there?

36       MS. MORTON: No, I can't. I'd have to -- I'd have to  
37             review that. But I am registered professional  
38             biologist number 1414.

39       Q     All right. And as a registered professional --  
40             that was Exhibit 1798 for the record, Mr.  
41             Commissioner.

42             As a registered professional biologist,  
43             you're under an ethical obligation to undertake  
44             only those assignments for which you are  
45             qualified?

46       MS. MORTON: I don't have assignments. I just have  
47             personal interest.

- 1 Q So as a registered professional biologist, does  
2 that mean that you can undertake any assignments,  
3 whether they're qualified or not -- whether you  
4 are qualified or not?
- 5 MS. MORTON: I'm sorry, but I've forgotten your name.  
6 When you do a scientific study, the bar that you  
7 pass is whether it's accepted by the journal. And  
8 what the journal does when you do a scientific  
9 article is they send it out to the people they  
10 think are going to oppose you. And if it passes  
11 review with the journal, you really need to take  
12 this up with the journals who have published me,  
13 the *ICES Journal of Marine Science*, the *Journal of*  
14 *Science*, the *American Fisheries Journal*  
15 *Transactions*. You could go on on this point  
16 forever, but that's the bar, just so as you know.
- 17 Q All right. You have published peer-reviewed  
18 research, as you've just told us?
- 19 MS. MORTON: Yes, that's correct.
- 20 Q And with respect to the peer review process, isn't  
21 the purpose of the journal to review it generally  
22 with your -- with peers, rather than finding  
23 people that are going to oppose?
- 24 MS. MORTON: Oh, no, quite to the contrary. They want  
25 -- they don't want to make the error of publishing  
26 something that's wrong or political or for  
27 purposes other than the science itself, so for  
28 example, Dick Beamish's paper was sent to me. So  
29 we -- we publicly held opposing opinions and they  
30 sent it to me. So, no, they're looking for a  
31 broad opinion.
- 32 Q All right. Ms. Parker, did you have a comment?
- 33 MS. PARKER: I just wanted to -- I will agree with Ms.  
34 Morton's last statement, that they're looking --  
35 that during peer review, it's about having a broad  
36 -- a broad perspective, but I would say that  
37 looking for opponents is inconsistent with the  
38 academic integrity of peer review.
- 39 Q Did you want to respond to that, Ms. Morton?
- 40 MS. MORTON: No, not really.
- 41 Q You agree that research involves the generation of  
42 hypotheses?
- 43 MS. MORTON: It's the testing of hypotheses. So you  
44 start with a hypotheses (sic) and then you go out  
45 and you try to understand the validity of it as  
46 best you can.
- 47 Q And --

1 MS. PARKER: Excuse me. I'm sorry to interrupt, but  
2 research begins with a null hypothesis and then  
3 you go out and try to disprove it.

4 Q Do you want to respond to that, Ms. Morton?

5 MS. MORTON: No.

6 Q Now, as we've seen in this commission, there may  
7 be peer-reviewed responses and peer-reviewed  
8 counter-responses?

9 MS. MORTON: Yes, that's correct.

10 Q And as a scientist, you are aware there's a  
11 significant difference between hypothesis and  
12 proof?

13 MS. MORTON: Yes.

14 Q And you'd agree that peer-reviewed research is  
15 generally entitled to more weight than other  
16 scientific articles which have not been peer  
17 reviewed?

18 MS. MORTON: Yes, that's correct.

19 Q You have been in this courtroom sitting with your  
20 counsel for the aquaculture and disease evidence  
21 since August 22nd of this year?

22 MS. MORTON: Yes, that's correct.

23 Q And you published with Dr. Larry Dill?

24 MS. MORTON: Yes, I've co-published with him.

25 MR. PROWSE: Now, Mr. Lunn, could we have Exhibit 1540,  
26 summary page 34 in the ordinary numbering?

27 MR. LUNN: Exhibit 1540.

28 MR. PROWSE: Thank you.

29 Q So in the end of the first paragraph at Exhibit  
30 1540 Dr. Dill attempts to narrow the issue for the  
31 commission with respect to the cause of the long-  
32 term decline in the -- especially returns in 2009.  
33 And he specifically says that there's no evidence  
34 to support the following items with respect to  
35 those declines, namely lice, benthic and pelagic  
36 impacts and escapes and he says that they're --  
37 none of them:

38  
39 ...are likely to be sufficient, alone or in  
40 concert, to cause either the long-term  
41 population declines or the especially low  
42 returns in 2009.

43

44 Do you agree with that statement?

45 MS. MORTON: I would add to that list pathogens and  
46 then lice and pathogens in concert could be a  
47 large factor in the declines.

1 Q All right. So you agree with the statement as  
2 written but you would add the factor of pathogens?

3 MS. MORTON: Yes. Because lice are such an effective  
4 vector and so, yeah, they definitely, in my mind,  
5 play a role because they move between the farmed  
6 fish and the wild fish.

7 Q All right. Now, until the year 2000 your  
8 publications were largely on killer whales?

9 MS. MORTON: Yes, they were. And dolphins.

10 Q And I want to turn to the question of fallowing.  
11 Mr. Lunn, could we have Exhibit 1557, please? So  
12 this is a paper that you were a co-author of with  
13 respect to sea lice dispersion and salmon survival  
14 in relation to salmon farm activity in the  
15 Broughton Archipelago?

16 MS. MORTON: Yes, that's correct. Enormous amount of  
17 work went into this paper.

18 Q Mr. Lunn, if we could have page 155, the second  
19 column in the middle. Yes. So this is on the  
20 left-hand side of the page in the middle:

21  
22 Based on escapement data...

23  
24 So this statement says:

25  
26 Based on escapement data, there were no  
27 significant differences in survival that  
28 corresponded to sea-louse abundance and  
29 juvenile salmon mortality on the migration  
30 route containing active farms relative to  
31 unexposed populations north of the Broughton  
32 Archipelago.

33  
34 MS. MORTON: Yes, that's correct.

35 Q And then on page 149 under the heading "Escapement  
36 and Survival Analysis", so the first sentence  
37 there:

38  
39 Survival among rivers, based on escapement  
40 data, was highly variable, and there was no  
41 detectable difference in mean survival for  
42 the Broughton Archipelago relative to the  
43 central Coast. ...only the Embly River  
44 clearly corresponds to the fallow migration  
45 route. That population experienced very poor  
46 survival, with a 90% decline, although it was  
47 subject to fallow intervention.

1                   So that -- is it correct?

2 MS. MORTON: Yes. And I really appreciate you bringing  
3 up this paper, because this speaks to the  
4 integrity of my work. I found a finding here that  
5 runs contrary to what I generally have found and  
6 put out, but you need to understand that when I  
7 began studying sea lice, the salmon farms were not  
8 treating prophylactically. They were not treating  
9 to protect the pink salmon and the chum salmon of  
10 the Broughton. And the average number of lice was  
11 11. And in the years after that, it was still  
12 extremely high. By the time I did this work,  
13 which included 87 plankton tows in the dead of  
14 winter, 20 minutes for each, I looked at 9000 fish  
15 live in the months between March and May, and the  
16 average number of lice was .3. And so what the  
17 farms had done is they had used a chemical to  
18 drive the lice numbers down. If I felt that that  
19 chemical was going to work forever on lice and if  
20 I felt that was the only problem with salmon  
21 farms, then I would be relieved and be able to go  
22 back to studying whales.

23                   But this paper should bring to this court the  
24 fact that when I find something that does not  
25 support my basic belief about this industry, I  
26 will publish it, as well.

27 Q               So in your peer-reviewed publications you're  
28 making a -- research indicating that fallowing did  
29 not have any effect on wild salmon survival under  
30 that --

31 MS. MORTON: Now you are cherry-picking, because the  
32 previous paper I did on fallowing, which looked at  
33 the years 2003, '02 and '04, I found a different  
34 result because at that time the lice were not  
35 being controlled by the salmon farming industry  
36 and the fallowing, the removal of the fish, not  
37 only dropped the number of lice enormously, but  
38 Dr. Beamish published on the year class that was  
39 treated to the fallow and those pink salmon  
40 survived better than in the history ever of pink  
41 salmon. So you really just -- you can't latch  
42 onto one detail. There was an enormous amount of  
43 drugs used to accomplish this result and the First  
44 Nations of the Broughton Archipelago for one are  
45 not comfortable with that drug being used. So  
46 this speaks to the fact that when the salmon farms  
47 deal with the issues that are affecting the fish,

1 the fish respond.

2 MR. BACKMAN: I think it's important to bring up a  
3 point, if I may, that, you know, Ms. Morton has  
4 made several -- several references to the paper  
5 with Dr. Beamish here that was done looking at the  
6 2004 return of salmon to the archipelago, and from  
7 the perspective -- my perspective on this in my  
8 speaking with Dr. Beamish was that yes, some  
9 wording was added to that document but the thrust  
10 of that document is about changes in the regime of  
11 the ecosystem of the Broughton Archipelago. And  
12 it's consistently misrepresented here that it's  
13 all about whether some farms were operating or  
14 not. And it's true that Ms. Morton was a peer  
15 reviewer. I think it's also true that the peer  
16 review process went on a very, very long time and  
17 was finally -- at very great length between the  
18 two of them before it could be worked out that he  
19 would add a few more words to the credit, that  
20 there were some farms that were operating, some  
21 that weren't. But the focus of his work was on  
22 the regime change and the ecosystem change in the  
23 Broughton Archipelago.

24 MS. MORTON: Okay. I was not going to discuss this,  
25 but this has to brought up now. Dr. Beamish, for  
26 a period of months --

27 Q Well, I'm sorry, Dr. Morton --

28 MS. MORTON: -- refused to acknowledge that the  
29 farms --

30 MR. PROWSE: Sorry, Mr. Commissioner, I would like  
31 to --

32 MS. MORTON: -- on the fallow route were empty.

33 MR. PROWSE: I would like to move. I obtained the --

34 MS. MORTON: And the words that were added were to  
35 say --

36 MR. PROWSE: I didn't --

37 MS. MORTON: -- that those farms were empty.

38 MR. PROWSE: I didn't ask this question. I didn't ask  
39 for the intervention. I'm not asking for a  
40 response. I'd like to move on, Mr. Commissioner.

41 MS. MORTON: I'm sure.

42 MR. PROWSE:

43 Q Now, Ms. Morton -- sorry, do you prefer to be  
44 called Dr. Morton?

45 MS. MORTON: Yes, I do.

46 Q Dr. Morton, in addition to doing your scientific  
47 research, you also campaign publicly?

- 1 MS. MORTON: After doing ten years of research I began  
2 to campaign publicly.
- 3 Q Well, I suggest that your public campaigning has  
4 got -- sorry, so starting when are you identifying  
5 your campaigning?
- 6 MS. MORTON: Well, it depends how you define public  
7 campaigning, 'cause it started with 10,000 letters  
8 to DFO and then it went into doing ten years of  
9 research on sea lice. There was engaging in the  
10 salmon aquaculture dialogue and review and the  
11 CRIS study and the special legislative committee,  
12 so there's been a lot of participation in public  
13 processes, and when my -- when I began to see that  
14 the archipelago that I was living in was still  
15 suffering from this industry, I figured that the  
16 next step was to go to the public and so that --  
17 you know, that really got started about two years  
18 ago.
- 19 Q As a scientist, when you speak publicly, do you  
20 find it necessary to simplify complex issues?
- 21 MS. MORTON: Yes, I do.
- 22 Q And as a campaigner it's important to you to get  
23 your message out and to communicate effectively?
- 24 MS. MORTON: As someone who's trying to protect her  
25 home, yes, I do find it's helpful to communicate  
26 clearly.
- 27 Q So you not only simplify, but you present your  
28 message in the most effective way?
- 29 MS. MORTON: I like to communicate things as clearly as  
30 possible.
- 31 Q When you present as a campaigner and not as a  
32 biologist, you do not have to confine yourself to  
33 your expertise?
- 34 MS. MORTON: The biologist is underlying everything.  
35 If the government had reacted to my concerns, I  
36 would never be talking publicly.
- 37 Q And, in fact, campaigners have great freedom in  
38 what they say to media?
- 39 MS. MORTON: There's nobody restraining my freedom. I'm  
40 not paid by anybody, so I try to communicate as  
41 clearly and as fairly as I see possible.
- 42 Q And if you have to choose between clear and fair,  
43 what choice do you make?
- 44 MS. MORTON: I choose fair as often as possible, yes.
- 45 Q And effective media statements encourage simple,  
46 startling messages?
- 47 MS. MORTON: Sorry? Could you repeat that?

- 1 Q Effective media statements encourage simple,  
2 startling messages?
- 3 MS. MORTON: The issue is startling and clear is  
4 required to communicate it.
- 5 Q So media messages do not involve the peer review  
6 processes that restrict what scientists say in  
7 peer-reviewed literature?
- 8 MS. MORTON: The media messages that I use are based on  
9 my experience and peer-reviewed science.
- 10 Q And --
- 11 MS. STEWART: I believe DFO's communication plan  
12 indicated that they were trying to find the most  
13 effective, clear and informative and impressive  
14 way of communicating, as well. It's standard  
15 across the board, I believe.
- 16 Q And you do not have to follow governmental  
17 restrictions preventing you from talking to the  
18 media about commission matters?
- 19 MS. MORTON: No, I'm -- I can say whatever I feel is  
20 right to say.
- 21 Q And since you're not a veterinarian you do not  
22 have to be restricted by obligations of  
23 veterinarian ethics.
- 24 MS. MORTON: I am not a veterinarian.
- 25 Q And you feel free to attack those who disagree  
26 with you?
- 27 MS. MORTON: I feel free to defend the home that I love  
28 and want to see thrive.
- 29 Q And Dr. Miller, whom you are supporting and want  
30 to see her research supported?
- 31 MS. MORTON: I do want to see her research supported,  
32 yes.
- 33 Q And she's gone through several different  
34 hypotheses with respect to her genomic research?
- 35 MS. MORTON: She's gone through an evolution of  
36 hypotheses, yes.
- 37 Q And that's not unusual in science?
- 38 MS. MORTON: No, that's not unusual.
- 39 Q And so in -- and your peer-reviewed research is in  
40 sea lice, as we were discussing earlier?
- 41 MS. MORTON: Sea lice, whales, escaped Atlantic salmon.  
42 I'm also working on creeping antibiotic resistance  
43 coming out from the salmon farms and I've worked  
44 on predation in whales.
- 45 Q All right. A question for Ms. Stewart. Do you  
46 believe the 2010 Fraser River sockeye salmon run  
47 was healthy?



1 MS. STEWART: I'm not a scientist. I would hesitate to  
2 speculate on that. I'd leave it to those who are  
3 qualified.

4 Q Do you -- does the fact that there was a record  
5 run in 2010 give you any hope or optimism for the  
6 future of the Fraser River sockeye salmon?

7 MS. STEWART: Yes and no. I believe that sockeye are  
8 exposed to a host of pressures from shifting ocean  
9 regimes and climate change right down to land-  
10 based sources of point pollution, and that it's  
11 incumbent upon us as British Columbians, as  
12 Canadians, to do what is within our power to  
13 enable their survival as best we can. I wish our  
14 government federally was doing more to address the  
15 issue of climate change, but certainly it is a  
16 global issue that is going to take a global effort  
17 to combat. It is within our jurisdictional power,  
18 however, to address immediate threats such as bad  
19 logging practices, land-based sources of pollution  
20 and the impacts of open net cage salmon farms, and  
21 we should be doing that.

22 Q Do you believe that First Nations, commercial and  
23 sports fishing can coexist with healthy wild  
24 salmon populations?

25 MS. STEWART: If they're properly managed, yes.

26 Q If so, why not aquaculture, which despite  
27 intensive study cannot be associated with any  
28 population effect on wild salmon for the past five  
29 years?

30 MS. STEWART: Well, I'm not sure that it can't be. And  
31 again, I'm not a scientist. I can't speak to  
32 areas outside my expertise. But I have travelled  
33 to Norway, I've travelled to Chile and other  
34 salmon farming jurisdictions, the East Coast of  
35 Canada. I have spoken to a lot of scientists who  
36 believe that the weight of evidence is very clear  
37 and just because the Canadian Department of  
38 Fisheries and Oceans refuses to accept it, doesn't  
39 mean it doesn't exist.

40 Q And finally, with respect to questions of disease,  
41 it's fair to say, Dr. Morton, that you have not  
42 published peer-reviewed publications on the topic  
43 of disease?

44 MS. MORTON: I have not -- well, sea lice are a  
45 disease. They're actually classified as a  
46 pathogen and they cause a disease. But what is  
47 astonishing me here is we have evidence that the

- 1 majority of Fraser sockeye have been weakened and  
2 killed by something that a DFO scientist thinks is  
3 a virus and simply because it hasn't been  
4 published, why don't we explore that? I mean, it  
5 seems we have an enormous lead here. The pattern  
6 fits so well. That is really what the subject of  
7 this inquiry and line of questioning should be.
- 8 Q And I submit to you that you would agree that with  
9 respect to the genomic research, you would rely on  
10 Dr. Miller?
- 11 MS. MORTON: Absolutely, yes.
- 12 Q And with respect to the questions of virology, Dr.  
13 Miller and Dr. Garver would be good people to rely  
14 on?
- 15 MS. MORTON: I'm not going to rely on them. I will  
16 read their research. That's why they publish in  
17 journals. That's why there's a method of  
18 publishing, so that a person like me can read it  
19 and put things together and get an idea of the  
20 full story. I feel honestly that DFO scientists  
21 are under constraints that aren't allowing them to  
22 explore things as fully as they want. And that's  
23 one of the recommendations that I would make to  
24 this commission, is to free these people so that  
25 we could actually hear what they -- allow them to  
26 fully develop their thoughts.
- 27 Q But you would agree that on topics of science, on  
28 virology and genomics that the commissioner in the  
29 end will have to rely on the expertise before him  
30 that he is best relied on peer-reviewed scientific  
31 publications?
- 32 MS. MORTON: He's not going to be able to rely on peer-  
33 reviewed science when it comes to parvo virus. I  
34 mean, she's in the middle of that test right now.  
35 She's trying to figure out what it is. The fish  
36 farm industry has prevented or somebody has  
37 prevented her from testing fish. That protocol  
38 won't be discussed till after this aquaculture  
39 hearing, so Justice Cohen, you're not going to be  
40 able to rely on peer-review science for a lot of  
41 this.
- 42 Q And with respect to -- would you not agree with  
43 Dr. Korman that on the disease topics, that the  
44 commissioner should rely on those with expertise  
45 in disease?
- 46 MS. MORTON: I would be very careful. Because, you  
47 know, Kyle Garver is saying the IHN epidemics were

1 not seen -- that the farm epidemics, there was no  
2 response seen in the sockeye. But when I look at  
3 his graph of what years IHN was in the Nadina  
4 sockeye, it matches up very, very closely with the  
5 St-Hilaire paper about IHN in the early '90s and  
6 the Sonja Saksida paper in the early 2000s.

7 Q So I suggest to you that -- would you not agree  
8 that at the end of the day, the commissioner  
9 should place more reliance on your peer-reviewed  
10 scientific publications than on your statements  
11 going beyond your field of expertise?

12 MS. MORTON: No, I disagree. He's faced with an  
13 enormous task of weighing this evidence out and I  
14 don't envy the job.

15 MR. PROWSE: Me neither. Thank you very much.

16 MR. MARTLAND: Mr. Commissioner, next I have counsel  
17 for Areas D and B with 15 minutes.

18 MS. PACEY: Thank you, Mr. Commissioner. Good  
19 afternoon, Panel. Katrina Pacey, P-a-c-e-y,  
20 initial K., counsel for Area D Gillnet Association  
21 and the Area B Seiners.

22 Mr. Lunn, if I could ask you to please pull  
23 up Exhibit 1561. It should be the Salmon  
24 Aquaculture Dialogue Working Group Report. Thank  
25 you. And if I could get you to scroll through to  
26 page 41, please, and you'll see Table 6 there.

27  
28 CROSS-EXAMINATION BY MS. PACEY:

29  
30 Q Mr. Backman, I'm going to direct my questions to  
31 you, so if I could ask you to have a look at Table  
32 6, please, and I'll take you a minute to -- give  
33 you a minute just to read through.

34 MR. BACKMAN: Okay.

35 Q Could you tell me if this accords with your  
36 understanding of the range of methods used for  
37 disease control on specifically, of course, on  
38 your farms?

39 MR. BACKMAN: It does represent the range of controls,  
40 and this document was for international purposes  
41 so it's generalized for international, but yes, it  
42 does represent the range of controls.

43 Q Okay. So I'm going to take you through it and ask  
44 you some questions on each level of intervention  
45 and starting with mass slaughter, which is at the  
46 top of the table. This is, of course, where --  
47 involving the mass slaughter of an entire pen of

1 salmon; you'd agree with that?

2 MR. BACKMAN: Correct.

3 Q And would you agree that that's the method of last  
4 resort?

5 MR. BACKMAN: Generally, yes.

6 Q Yeah. And in terms of your experience and your  
7 time working within the industry, do you agree  
8 with me if I said that this really has only --  
9 this intervention has only been used once and that  
10 was in relation to the IHN outbreak a decade or so  
11 ago?

12 MR. BACKMAN: No, I would disagree. It happens more  
13 frequently than that. It has occurred both times  
14 in -- with the IHN, both in the '90s and in the  
15 thousands, there's been examples of farms entirely  
16 removed. It's also occurred at hatcheries when  
17 there's been a situation with a disease that's  
18 cropped up in a hatchery, so that those animals  
19 have been removed. So it does happen  
20 occasionally, not terribly frequently.

21 Q And it occurs in situations where you have a very  
22 serious outbreak of disease; is that correct?

23 MR. BACKMAN: That's correct.

24 Q And would you agree with me if I said that when  
25 this intervention is used, because of the degree  
26 of the outbreak, it's likely that disease will  
27 have already spread beyond the farm?

28 MR. BACKMAN: The -- there will be a number of diseased  
29 animals in the cages. The likelihood of the cage  
30 of animals surviving is fairly low, so the  
31 potential for pathogens to have exited the cage is  
32 always there, yes.

33 Q So would you agree with me then that this is a  
34 reactive measure, as opposed to anything -- or a  
35 preventative measure?

36 MR. BACKMAN: Well, at this point it's reactive because  
37 if you're going to go through the entire list,  
38 we're going to see that the majority of the  
39 actions, the vast majority of the actions, are in  
40 the bottom half of the list, whereas preventative  
41 actions taken, and that's why the majority of the  
42 fish in the cages are quite healthy and the  
43 frequency of this having to occur is very, very  
44 rare.

45 Q Okay. We'll move our way down the list and talk  
46 about the bottom five, which I understand are the  
47 most frequently used. But moving to the next line

1 is test and slaughter. Would you agree with me  
2 that the notion of testing and slaughtering is  
3 challenging because really, it's going to be very  
4 difficult to test an entire pen worth of fish to  
5 know which fish are actually carrying pathogens  
6 and which are not?

7 MR. BACKMAN: You don't have to test the entire group  
8 of -- the entire pen of fish. This level would  
9 occur at a point in time when there's other  
10 indicators besides laboratory testing or  
11 histopathological testing. This would occur at a  
12 point in time when there's a lot of on-the-farm  
13 level information about fish that are not behaving  
14 well, they're not eating any longer, they're not  
15 -- their behaviour of swimming is not what it  
16 should be. Anybody who's worked with fish for  
17 more than a year or so will understand when fish  
18 are compromised, and so this would be the -- the  
19 testing would be confirming what is going on with  
20 the fish, but it wouldn't be -- the other elements  
21 would be available to the fish technician and the  
22 fish health professional.

23 Q So the slaughter of fish would relate to those  
24 which are demonstrating that they're compromised;  
25 is that correct?

26 MR. BACKMAN: It would -- it would relate to the pen or  
27 the farm, depending at which -- at what level the  
28 decision is made.

29 Q Would you agree with me that it's possible that  
30 there would be fish within the pen or on the farm  
31 that are carrying the pathogen that are not yet  
32 demonstrating that they're compromised, not yet  
33 showings symptoms and therefore not a target for  
34 the slaughter or killing of those fish?

35 MR. BACKMAN: Well, there would be a portion that  
36 wouldn't show symptoms of a disease. I think the  
37 veterinarian panel mentioned that a lot of the  
38 testing that they do on a routine basis may  
39 actually show existence of a pathogen, but there's  
40 no expression of disease within the fish or at the  
41 farm site, so there are those animals, as well.

42 Q And fish in those circumstance would be in a  
43 position where they may be transmitting that  
44 pathogen or disease; is that correct?

45 MR. BACKMAN: Well, if it's a mass slaughter, all the  
46 animals in the pen or in the farm would be  
47 removed. It wouldn't -- you don't just go through

1           and try and remove the animals which appear to be  
2           affected. A mass slaughter is simply that, mass  
3           removal.

4           Q     Perhaps I'm not understanding but the second line  
5           I understood to be that just those fish that are  
6           testing positive are the ones that are killed or  
7           destroyed. So specifically referring to that  
8           second line.

9           MR. BACKMAN: The second line refers to that part of  
10          the process where you've moved from the  
11          observation of a problem and you're actually doing  
12          the tests that is elucidating the concern that  
13          leads to the slaughter. So it's determining how  
14          widespread the issue is within the cage and within  
15          the farm.

16          Q     And I'm going to suggest to you that in terms of  
17          being able to identify which fish are actually  
18          carrying the pathogen, that the same problem would  
19          arise in the next intervention, or the next method  
20          for disease control, which is quarantine or  
21          isolation, that you may encounter a situation  
22          where you're attempting to quarantine or isolate,  
23          but in fact it's very difficult to tell which fish  
24          are carrying the pathogen and which are not,  
25          because they may not all be demonstrating that  
26          they're compromised or showing symptoms.

27          MR. BACKMAN: Well, I'd say that what occurs is, you  
28          know, if you've identified the existence of the  
29          pathogen on the farm and you're undergoing a  
30          treatment on the farm because the fish may well  
31          respond to antibiotic treatment and they may no  
32          longer be suffering from the disease, it's  
33          appropriate at that point in time to have  
34          quarantine or isolation, depending on the  
35          particular pathogen that you're working with.

36          Q     And do you agree with the table where it says that  
37          this is only available in certain contexts:

38  
39                   Open netpen systems or closed pens that do  
40                   not have capacity to treat water are not  
41                   conducive to this intervention.  
42

43          MR. BACKMAN: You want to jump in?

44          Q     Yes, Ms. Parker?

45          MS. PARKER: I'm sorry. I think there's a little bit  
46          of confusion over test and slaughter, because I'm  
47          looking at the text and it says that only the fish

1 that test positive are killed and destroyed, and  
2 that's not the practice in British Columbia. In  
3 British Columbia the practice is that if you test  
4 a representative sample of fish, whether it's a  
5 tank or a pen, and if you find a pathogen that  
6 can't be treated that should result in the culling  
7 of those animals, then the entire cohort is  
8 culled. So I think -- and when I look at the  
9 text, I think that there's a sort of confusion  
10 with the idea of lethal sampling, which is  
11 obviously there are some tests that can only be  
12 done by killing the fish. So the practice in  
13 British Columbia is if you have that kind of  
14 result and that's the action that has to be taken.  
15 It's not just the fish that you think are sick;  
16 you cull the cohort.

17 Q And just so I understand your evidence, Ms.  
18 Parker, are you indicating that there's a  
19 threshold that is reached or is it a threshold in  
20 terms of numbers within the pen or is it specific  
21 to the virus or both?

22 MS. PARKER: It would be a combination of what you're  
23 saying, so it depends on the -- it depends on the  
24 pathogen that's found. For example, certain  
25 pathogens would require immediate culling. It  
26 could be ordered by the Canadian Food Inspection  
27 Agency, it could be ordered by the DFO, it could  
28 be ordered by the company vet. Those are the  
29 sorts of actions that are inviolate. The company  
30 can't -- the company management can't override  
31 that kind of order for destruction. And the same  
32 with quarantine, if you see signs but you have not  
33 yet, for example, received a definitive diagnosis,  
34 you may quarantine the site, restrict travel to  
35 and from. You can also do that in case of  
36 environmental stressors for the fish to reduce  
37 activity, to prevent a disease outbreak while  
38 you're discovering the appropriate treatment.

39 Q Thank you, Ms. Parker. And I'll ask you the same  
40 question I asked Mr. Backman, which is whether or  
41 not at that stage it's very likely that a pathogen  
42 has already been transmitted from the net pen to  
43 the wild stocks.

44 MS. PARKER: As the diseases that are experienced in  
45 salmon farming in British Columbia are endemic, in  
46 fact, the likelihood is that the disease pathogen  
47 came from the wild and the control is to prevent

1           amplification.

2           Q     And if the control is to prevent amplification,  
3                 would you agree with me that at the point at which  
4                 it's -- the farm is alerted and aware that this is  
5                 taking place, that it's very likely that it has  
6                 already been transmitted back to the wild?

7           MS. PARKER: I wouldn't actually say that, because I  
8                 would say that farmed fish are observed more  
9                 regularly and more routinely than you might see --  
10                than you would within our wild stock period. So  
11                the fish are observed daily and some of the signs  
12                are as simple as going off feed and farms would be  
13                able to quickly know whether that was due to  
14                environmental condition like low DO or harmful  
15                algae. And so it's a fairly rapid response.

16          MR. BACKMAN: Perhaps I could add to that -- oh, I  
17                mentioned that the pathogen or the viral particle  
18                could pass through the nets, if that -- before  
19                that point in time. What I was getting at there  
20                though was that as we heard from the veterinarian  
21                panel, the presence of a virus doesn't indicate a  
22                disease. There's an interplay between the actual  
23                presence of a virus, the receptivity of the fish  
24                and that can lead to a disease. It may -- or it  
25                may not. There are literally billions of viruses  
26                in the ocean at any given time. Some are harmful.  
27                Some are not. And fish are constantly dealing  
28                with this challenge of viruses. So when -- when  
29                those endemic viruses, whether they're from a  
30                salmon farm at that particular point in time or  
31                whether they're from other wild fish, it doesn't  
32                necessarily indicate there's immediately going to  
33                be a disease and then a die-off of an animal.

34          Q     Yes, please?

35          MS. STEWART: I just wanted to respond to Mia in terms  
36                of the rapid response by the farms, because we  
37                encountered this on the issue of treating with  
38                SLICE and this is one of the steps that we were  
39                able to negotiate with Marine Harvest in terms of  
40                proactive treatment. But the standard has been  
41                that when the farms reach the level of three  
42                motile lice, it's at that point that they obtain a  
43                prescription from a vet and order the medicated  
44                feed. The medication has to be milled into the  
45                feed and then shipped to the farm. And often  
46                these farms are in quite remote locations.

47                So in the case of the Marine Harvest farms in



1 the Broughton, what we're seeing is when the lice  
2 start trending towards the three motile level,  
3 it's at that point that they will order the feed  
4 in order to try and basically nip the infestation  
5 in the bud before it gets too high. In other  
6 locations on the coast where Marine Harvest, to  
7 their credit, is actually reporting lice levels,  
8 we see that the feed is ordered when the three  
9 motile level is reached and by the time the  
10 medicated feed is actually administered to the  
11 fish, the levels of lice can escalate quite  
12 quickly.

13 So I would question how rapid the response is  
14 if the disease -- if a disease is being treated  
15 with medicated feed, as well.

16 Q And --

17 MR. BACKMAN: If I can point out, this example on sea  
18 lice, it was mentioned by the veterinarian  
19 community that the sea lice on Atlantic salmon are  
20 being treated before they're showing any level of  
21 harm to the Atlantic salmon themselves. So it's a  
22 little different than disease, where I mentioned  
23 before the vets would already have seen animals  
24 that were compromised on the site. They would  
25 stop swimming. So there would be a lot of  
26 information that they would have at their disposal  
27 that would speed up that process of getting the  
28 medication to the animals that was required.

29 Q Thank you. So I just have two more questions I'm  
30 going to ask and I think I'm out of time. The  
31 first is just to confirm, and I will ask the  
32 panellists to agree if they do, in fact, agree  
33 with me that the measures that are on this board  
34 are reactive measures, they're not ones which are  
35 preventive in terms of stopping disease from being  
36 transmitted from farms outward?

37 MS. MORTON: I would say they don't work. When the IHN  
38 epidemic hit the Broughton Archipelago in 2001  
39 they culled the first farm in Birdwood, but it  
40 already spread to Sir Edmund and there were  
41 eyeballs and pieces of guts flowing out of that  
42 farm into the herring of Kingcome Inlet and then  
43 the farm jumped to the Birdwood farm, which they  
44 never culled at all. And I don't think they can  
45 treat for IHN. So I don't think it works.

46 MR. BACKMAN: I think it's important to point out that  
47 the majority of these from mass vaccination on

1 down are proactive. They're part of the fish  
2 health management that goes on. The fact that all  
3 of the fish now in B.C. are receiving -- all of  
4 the Atlantic salmon are receiving a vaccination  
5 for IHN demonstrates the kind of adaptive change  
6 also, adaptive management is going on in response  
7 to these kinds of endemic viruses that are already  
8 here in British Columbia.

9 MS. STEWART: Which is a cost saving that could be  
10 accounted for in closed containment, because the  
11 operators of closed containment farms are using  
12 generally pure water sources and don't have to  
13 vaccinate their fish, and it's a significant cost  
14 to the operator.

15 MS. PARKER: Respectfully, I will disagree with both  
16 points. In fact, surveillance is a proactive --  
17 or an active frontline response. So is  
18 environmental management, so is mass vaccination.  
19 And quarantine is also considered a proactive  
20 response.

21 MS. PACEY: And that's my time. Thank you.

22 MR. MARTLAND: Thank you. Mr. Commissioner, I have  
23 next counsel for the First Nations Coalition with  
24 15 minutes.

25 MS. GAERTNER: Thank you, Mr. Commissioner. Brenda  
26 Gaertner for the First Nations Coalition. I  
27 regret that I have to start with some opening  
28 comments directly to you, Mr. Commissioner, about  
29 where we are in this inquiry but that's my  
30 instructions.

31 As you just heard, I've been given 15 minutes  
32 on this perspectives panel. At the beginning of  
33 this topic of this small part of the large complex  
34 hearing, I raised with you concerns about Policy  
35 and Practice Report and how First Nations and  
36 First Nations Fisheries Council's efforts on  
37 aquaculture were not included in the Policy and  
38 Practice Report. And I did my best last week to  
39 get to you some of the basic historical facts and  
40 I played catch-up most of the week in terms of  
41 time and topic.

42 And then secondly, I raised in a letter to  
43 Brock Martland after receiving the Policy and  
44 Practice Report and obtaining an indication of the  
45 topics, that there would be very tight time  
46 allocations and there would be unlikely -- there  
47 would likely be insufficient time for the First

1 Nations Coalition to do their work.

2 And the third issue, which is the issue that  
3 was so pressing for my client at the end of the  
4 day yesterday in the hearing was that here we have  
5 a perspectives panel on management, risks and  
6 finfish aquaculture and there is not a First  
7 Nations representative here to speak from their  
8 perspective. It was offensive and I want to let  
9 you know that it was offensive to hear members of  
10 the panel asserting that they understood First  
11 Nations issues and that they could explain those  
12 to you. It's not appropriate in this inquiry or  
13 otherwise for anyone other than First Nations  
14 representatives to be providing to you their  
15 perspectives on these issues.

16 I'm not here for any other dialogue except  
17 with you, Mr. Commissioner, on this matter and  
18 rest assured on that. We spent the evening last  
19 night considering our options. We are proceeding  
20 with this panel. We're going to proceed with our  
21 15 minutes. We're going to do our best as we can,  
22 but it is difficult. It is extremely difficult to  
23 operate under this situation and so we needed to  
24 let you know that and to let you know that there  
25 has to be room at the table for First Nations on  
26 these issues. And this is an example where the  
27 conflict might just be too much for people. There  
28 may not be a single issue or a single perspective  
29 for First Nations but that does not mean that they  
30 are not part of this table and they need to be.  
31 And they need to be heard and you need to hear it  
32 from them directly.

33 I'm here. I'm doing my best as their legal  
34 counsel, but I will not be through this panel  
35 educating you on the perspective of First Nations.  
36 I am going to ask questions only of industry in  
37 these questions. Those are my instructions. I'm  
38 hoping that we can have some dialogue here on  
39 that. And I'll proceed as best I can.

40 And then I was asked to tell this story  
41 because it's a story that's inspired my work for a  
42 very long time and it's a story from an elder in  
43 the Stl'atl'imx territory and she said unless we  
44 stop fighting about these matters and start  
45 listening to the fish, this salmon will never  
46 return. And we must make our efforts in that way  
47 and so I am going to make my efforts in that way

1           today. I am not encouraging a fight with any of  
2           you. I am not intending to insult any of you. I  
3           regret that this is the first time that I'll have  
4           an opportunity to speak to you directly, Mr.  
5           Backman. I hope there will be other opportunities  
6           and we'll do our best in these 15 minutes.

7           THE COMMISSIONER: Thank you, Ms. Gaertner.

8

9           CROSS-EXAMINATION BY MS. GAERTNER:

10

11          Q        Could I have PPR1 page 161 and at the same time  
12                   can I have Exhibit H for identification?

13

          Mr. Backman, I'm going to try to do a couple  
14           of things preliminary in nature and then we're  
15           going to talk about how industry, the Crown and  
16           First Nations might be able to move forward in  
17           this rather difficult time.

18

MR. LUNN: I'm sorry, did you say document H?

19

MS. GAERTNER: I did. And then I want PPR1.

20

Q        And I'd like to go to page 161 -- sorry, paragraph  
21           161 of PPR1 which is page 55. Mr. Backman, I'm  
22           not going to ask you for a legal opinion on  
23           anything.

24

MR. BACKMAN: Good.

25

Q        I'm going to -- I appreciate those are the jobs of  
26           mine and other lawyers in this room, but this PPR  
27           was an outline of the duty to consult that's  
28           already established in law. It was the work of  
29           the commission in putting forward the  
30           uncontroversial issues and left -- they left it to  
31           us as participants to raise the more controversial  
32           issues. But this is the work that is pretty  
33           straightforward.

34

          And I want to take you to paragraph 161 and  
35           then I'm going to take you to paragraph 160. And  
36           paragraph 161 frames when the duty to consult  
37           arises and the duty arises when the Crown has  
38           knowledge, either real or constructive, of the  
39           potential existence of the aboriginal right or  
40           title and contemplates conduct that might  
41           adversely affect it.

42

          Now, given the context of these hearings and  
43           I know you've been paying active attention to  
44           what's going on in these hearings. We've heard a  
45           lot about needing to find the smoking gun or not  
46           finding a smoking gun and needing to find direct  
47           causation or correlation or all those things, and

1           you'll agree with me that "might adversely affect  
2           it" is a slightly different test than all of  
3           those, isn't it?

4       MR. BACKMAN: Okay. Mm-hmm.

5       Q     Yes, you will agree --

6       MR. BACKMAN: Yes.

7       Q     -- with me on that? And so let's stay with that  
8           test, shall we, as we continue our conversations  
9           and see how we can work forward together on that  
10          test. And then you'll see in paragraph 160 the  
11          commission describes some of the challenges  
12          associated with the duty to consult, in particular  
13          that stems from the honour of the Crown and that  
14          the Crown alone remains legally responsible for  
15          its actions and interactions with third parties  
16          that affect aboriginal interests. But it goes to  
17          the last line:

18  
19                 Third parties, such as businesses or  
20                 nongovernmental agencies, may also choose to  
21                 consult with First Nations, but they will not  
22                 be held to a constitutional duty to do so.  
23

24          Now, you'll agree with me that in British Columbia  
25          the relationship between First Nations, the Crown  
26          and business is a complex relationship. It's not  
27          a straightforward relationship; will you agree  
28          with me on that?

29       MR. BACKMAN: I would agree with you.

30       Q     And you'll agree with me there are significant  
31           challenges associated with business when certainty  
32           are associated with First Nations rights is not  
33           clear when you want to proceed in their  
34           territories or potentially do things that may  
35           impact their rights? Certainty --

36       MR. BACKMAN: Yes.

37       Q     And it costs you business, doesn't it?

38       MR. BACKMAN: That is correct.

39       Q     Yeah. And so as a company in British Columbia are  
40           you interested and willing to work with First  
41           Nations and the Crown to see what we can do to  
42           bring certainty around these issues?

43       MR. BACKMAN: Yes, we're willing to do that and I think  
44           some of the testimony that I brought forward  
45           yesterday demonstrates the actions and the success  
46           in that regard.

47       Q     All right. We're going to go to some of those

1 things yesterday and then we're going to go  
2 forward. Can I go to paragraph 31 of Exhibit H, I  
3 think it is? I can't read my own handwriting. Is  
4 that my -- the submission of the First Nations  
5 Coalition?

6 Now this is our written submissions that were  
7 part of the discussion on the application of s. 35  
8 rights in the context of this inquiry, in the  
9 context of the complexities associated with  
10 fisheries matters. And you'll see at paragraph 31  
11 of that:

12  
13 First Nations of the Fraser watershed and  
14 marine areas --

15  
16 And you'll agree that there's a lot of First  
17 Nations of the Fraser River watershed and the  
18 marine areas, yes?

19 MR. BACKMAN: Yes.

20 Q

21 -- assert as part of their rights --

22  
23 That list and that list includes the  
24 responsibility to protect, conserve and sustain  
25 the fishery. You'll see that and you agree that  
26 that's not something new. You haven't learned  
27 that for the first time today, have you? You know  
28 that First Nations assert that responsibility to  
29 protect, conserve and sustain the fisheries for  
30 this and future generations?

31 MR. BACKMAN: I'm aware of that, yes.

32 Q

33 Great. Okay. Thank you. Now, I do want to take  
34 you first, because I want to give you an  
35 opportunity right from the get-go, 'cause I want  
36 to make sure we start this conversation and  
37 continue with it long past my 15 minutes on the  
38 right footing. And so Exhibit 1366 is the paper  
39 that you -- that -- I don't think it was put into  
40 evidence yesterday, but you spoke of it. It's the  
41 paper that was prepared by Dr. Tom Watson,  
42 Questions and Answers on Salmon Aquaculture in  
43 British Columbia. Remember that paper, you spoke  
44 of it yesterday?

44 MR. BACKMAN: It was referred to yesterday, yes.

45 Q

46 And if we go to page 11, I believe it is, Section  
47 11, double 11, we see the -- what is the  
relationship between finfish aquaculture and First

1 Nations in British Columbia. And perhaps  
2 actually, sorry, can I go to page 7 of this  
3 document first? I want to remind Mr. Commissioner  
4 of the purpose of this document. The purpose of  
5 the document is to assist people outside of the  
6 industry and those involved in the Cohen  
7 Commission of Inquiry in developing a better  
8 understanding of salmon farming in B.C. That was  
9 the purpose that this paper was commissioned; is  
10 that correct?

11 MR. BACKMAN: Yes.

12 Q And that's what your hope with this document is?

13 MR. BACKMAN: Okay. Yes.

14 Q Now I'm going to take you to that section on page  
15 11 of 11. And I just need to ask you this broad  
16 question and then I'll go into the details if I  
17 have the time. The commissioner has heard that in  
18 2006 when the B.C. First Nation Action Plan was  
19 developed and has seen it - and that's Exhibit  
20 1189 - that progress needed to be made on three  
21 levels: government to government; between First  
22 Nations intertribally; and with third parties.  
23 And that -- and then you heard about resolutions  
24 from the Union of B.C. Indian Chiefs, the summit  
25 and the AFN after the Morton decision on the need  
26 to engage in deep consultation with respect to  
27 many issues, including siting. And then there are  
28 numerous reports and I am going to take you to a  
29 few of them if I have time, that the First Nations  
30 Fisheries Council has done.

31 You're familiar with the First Nations  
32 Fisheries Council? Could you tell me why, when I  
33 read this page 11, that there was nothing about  
34 all of that work in your description of the  
35 relationship between finfish aquaculture in B.C.  
36 and First Nations in British Columbia and that  
37 what you chose to select was one quote that talks  
38 about differing competing stances on aquaculture  
39 department and then the success story. You are  
40 absolutely aware as an industry that First Nations  
41 expect deep and substantive consultation on the  
42 impact of your farms on their rights; is that  
43 correct?

44 MR. BACKMAN: That's correct. Our --

45 Q So why isn't it here in this report? Why was that  
46 not here? You wanted a balanced opinion --

47 MR. BACKMAN: Yes.

1 Q -- I need to give you that opportunity, but I'm  
2 struggling.

3 MR. BACKMAN: Sure. The focus of this document was to  
4 bring forward the relationships and the  
5 communications and the consultation that has been  
6 engaged with by the companies in British Columbia  
7 within the territories with First Nations within  
8 the territories where they're operating, which is  
9 the primary place where we interact with the First  
10 Nations communities on the coast of British  
11 Columbia.

12 I think what you're referring to, and I, with  
13 due respect to the Aboriginal Fisheries Commission  
14 working at a different level and generally working  
15 with the responsibilities and reflecting the  
16 aspects of the governments of British Columbia and  
17 Canada in the more broad sense. So at this point  
18 in time, you know, we have not had a great deal of  
19 interaction at that level.

20 Q So are you prepared to acknowledge that finfish  
21 aquaculture has the potential to infringe the s.  
22 35 rights of all First Nations along the migratory  
23 route of the Fraser River sockeye salmon, the  
24 potential to infringe the exercise of their  
25 rights?

26 MR. BACKMAN: Not --

27 Q Can we go -- can we get past that gate, Mr.  
28 Backman?

29 MR. BACKMAN: I'm not an expert on the issues of  
30 aboriginal rights as they relate to First Nations  
31 communities up the coast, up the Fraser River. I  
32 think what you're asking is if the stocks of  
33 salmon that are moving back and forth, of which  
34 there is a right over can be infringed by our  
35 operations, so in that case there's -- I'd have to  
36 agree that there's an area there that has to be  
37 looked at.

38 Q There's a potential to infringe those First  
39 Nations who exercise rights to the Fraser River  
40 sockeye by the farms, correct? You're nodding.  
41 Okay. Let's move on then.

42 MR. BLAIR: Alan Blair for the B.C. Salmon Farmers. I  
43 think although my friend indicated she wasn't  
44 seeking legal opinion, that is a classic legal  
45 question and really beyond the scope of Mr.  
46 Backman, who's not a lawyer.

47 MS. GAERTNER: It's an application to the facts of this



1           commission. I'm asking him whether his fish farms  
2           have the potential, not whether they cause,  
3           whether they have the potential.  
4       MR. BLAIR: You started talking --  
5       MS. GAERTNER: And he's acknowledge that, and let's  
6           just move on.  
7       MR. BLAIR: You started talking about s. 35, potential  
8           of infringement, that seems like a legal question.  
9           I've registered my objection.  
10       MS. GAERTNER: All right.  
11       Q       Well, let's move on. Would you agree that having  
12           a protocol, a written protocol between industry,  
13           First Nations and the federal government as to how  
14           to do necessary research, ask the questions,  
15           assess the risks and apply those risks to  
16           management decisions would be a useful next step  
17           to creating certainty for your industry and for  
18           First Nations in this province?  
19       MR. BACKMAN: I think that would be a useful first step  
20           to bring some certainty to this area, yeah.  
21       Q       Thank you. And would you be prepared to fund the  
22           necessary studies that First Nations need in order  
23           to understand from their own perspective the  
24           implications of fish farms to the exercise of  
25           their rights --  
26       MR. BACKMAN: I think --  
27       Q       -- so they don't - sorry, let me just finish - so  
28           they don't have to rely on the duelling scientists  
29           that we've seen and heard? Let's get a study done  
30           that they can rely on.  
31       MR. BACKMAN: I think the model to this point has been  
32           collaborative funding by the agencies involved and  
33           this is a key -- this is a key area that would  
34           involve senior levels of government. I think that  
35           we would, as a company, be willing to participate  
36           in --  
37       Q       So you're willing to participate and assist the  
38           federal government in ensuring that those studies  
39           are paid for and executed?  
40       MR. BACKMAN: Well, we're willing to participate in  
41           moving forward this agenda that would move us into  
42           a place where we have better understanding around  
43           these protocols.  
44       Q       Are you prepared to experimentally remove farms  
45           along the Fraser River sockeye migratory route  
46           while these studies are underway, if that's a  
47           necessary way of assessing the impact of the

1 farms?

2 MR. BACKMAN: I think that's -- what we've said to this  
3 point is that the farms are meeting the  
4 requirements of the existing conditions of  
5 licence, they're meeting the requirements as we  
6 understand them today. I'm not aware that that  
7 would be a new requirement for us to move into a  
8 group understanding around --

9 Q So I've heard you right that that would have to be  
10 a term of the licence before you were prepared to  
11 do that?

12 MR. BACKMAN: I'm saying that it would have to be  
13 reflected in that term, yes.

14 Q Are you prepared to accept one-year renewals as  
15 distinct from longer-term licences until these  
16 issues are resolved?

17 MR. BACKMAN: We're currently operating under --

18 Q Are you prepared to continue to operate under one-  
19 year renewals until these matters are more  
20 appropriately resolved to the satisfaction of the  
21 Crown, First Nations and industry?

22 MR. BACKMAN: I think that we're looking for multiple-  
23 year --

24 Q Are you prepared to wait? Are you prepared to  
25 wait and have one-year renewals until this  
26 outstanding issue as it relates to the siting of  
27 these farms?

28 MR. BACKMAN: I think we're willing to enter into an  
29 agreement that works for all parties in order to  
30 work out this particular issue with the First  
31 Nation groups and if that means adjusting the  
32 length of tenures and if some of them are going to  
33 be at one year, we would recognize that.

34 Q I understand my time is up but I'm going to ask  
35 one final short question. Are you prepared to  
36 collaboratively develop a management board that  
37 would include First Nations as decision-makers,  
38 government and industry as -- in order to manage  
39 aquaculture and to meet the First Nations'  
40 interests? Are you prepared to sit at a  
41 management board that includes First Nations and  
42 government as the decision-makers and that you  
43 participate to advise us of your concerns and  
44 interests?

45 MR. BACKMAN: I think it's appropriate that industry  
46 would be participating at a --

47 Q To advise us of your concerns and interests?

1 MR. BACKMAN: Correct.

2 MS. GAERTNER: Those are my questions, Mr.  
3 Commissioner. I have not finished in any kind of  
4 way the kinds of questions that I could usefully  
5 have done with this panel.

6 MR. MARTLAND: Mr. Commissioner, I'll just update you  
7 with respect to the timing of our day. I have two  
8 remaining participants with -- each with a 15-  
9 minute allocation. We don't have the ability to  
10 sit past 4:00 to my understanding and so that puts  
11 us in a position where we're tight, although I  
12 haven't had requests for re-examination. We don't  
13 expect any for our part. So I think we can do it.  
14 I'm at your disposal as to whether we perhaps take  
15 a shorter break or not or whatever you'd prefer to  
16 do in terms of our sequence. The next on the list  
17 is Ms. Robertson, 15 minutes. But I'm at your  
18 disposal as to our next step.

19 THE COMMISSIONER: Yes. Thank you, Mr. Martland.  
20 We'll take a ten-minute break and then whatever  
21 time is remaining can be divided between the two  
22 remaining participants.

23 MR. MARTLAND: Thank you.

24 THE REGISTRAR: Hearing will now recess for ten  
25 minutes.

26  
27 (PROCEEDINGS ADJOURNED FOR AFTERNOON RECESS)  
28 (PROCEEDINGS RECONVENED)  
29

30 THE REGISTRAR: The hearing is now resumed.

31 MS. ROBERTSON: Mr. Commissioner, Krista Robertson for  
32 the Musgamagw Tsawataineuk Tribal Council.

33 Mr. Lunn, if you could please pull up MTTC  
34 document number 1, and the document is entitled  
35 "Technologies for Viable Salmon Aquaculture", and  
36 "Examination of Land-Based Closed Containment  
37 Aquaculture."  
38

39 CROSS-EXAMINATION BY MS. ROBERTSON:  
40

41 Q Ms. Stewart, can you identify this document?

42 MS. STEWART: Yes, I've read this report by Andrew  
43 Wright. It was done for the Save Our Salmon  
44 organization, sorry.

45 Q For the Save Our Salmon Marine Conservation  
46 Foundation?

47 MS. STEWART: That's correct, yes.

1 MS. ROBERTSON: Okay. And, for the record, Mr.  
2 Commissioner, this foundation is described at page  
3 114 of the PPR.

4 Q If we could please go to page 4, and if we could  
5 look at that second-to-last paragraph there.

6  
7 The report concludes that land-based closed  
8 containment is technically and economically  
9 feasible. Moreover, the design presented if  
10 refined would allow for substantial  
11 reductions in both capital and operating  
12 expenses.

13  
14 So I was going to mark this as an exhibit. My  
15 friend, Mr. Blair, has advised me over the break  
16 that he would object to that on the basis of short  
17 notice, so I'm just, to avoid taking time on that  
18 issue now, I'll just ask to mark it for  
19 identification, please.

20 THE REGISTRAR: It'll be marked as HHH, triple H.

21  
22 MARKED HHH FOR IDENTIFICATION: Document  
23 titled "Technologies for Viable Salmon  
24 Aquaculture" by Andrew Wright  
25

26 MS. ROBERTSON: And I've raised this document because  
27 the issue closed containment has come up on this  
28 panel a fair bit, and I think it's important to  
29 have sort of as full a record as possible.

30 Q So, moving on, I have some questions around the  
31 First Nations' relationship to aquaculture. Mr.  
32 Backman, yesterday you were asked to give some  
33 examples about what you would characterize as a  
34 positive and beneficial relationship between First  
35 Nations and the salmon farming industry, and you  
36 did that. I just want to acknowledge the comments  
37 of my friend, Ms. Gaertner, that we are very  
38 disadvantaged in terms of this panel because we  
39 don't have First Nations representation on it.

40 I will note for the record, one of my  
41 clients, Chief Robert Mountain, did give evidence  
42 on the aboriginal perspectives panel, and he did  
43 touched on, somewhat, my client's views on salmon  
44 farming in their territory. But, for the time  
45 being, I'll have to work with what we have on this  
46 panel.

47 So, to be fair, Mr. Backman, would you agree

1           there are a number of First Nations groups who are  
2           opposed to salmon farming in their territory?  
3           Have you...?

4       MR. BACKMAN: I think that's a fair representation.

5       Q     And is that because they don't see their concerns  
6           being addressed?

7       MR. BACKMAN: It varies from group to group. When  
8           we're able to sit down and speak, I think it's  
9           primarily that they have concerns about potential  
10          impacts on their resources, they're of importance  
11          to them, and their traditional practices within  
12          the area.

13      MS. ROBERTSON: If we could pull up Exhibit 1649? This  
14          has already been identified. It's a summary of a  
15          meeting - and this is early days of DFO taking  
16          over aquaculture - of DFO representatives and you  
17          can see from the attendee list there, a fairly  
18          diverse group of First Nations' representatives.  
19          If we could please go to the first page of that  
20          document? So if we could just highlight the third  
21          bullet there. Thank you.

22      Q     So we have there, "Questions/Comments/Concerns",  
23          so these were the first comments that came out in  
24          this meeting. The first one is:

- 25
- 26           • Protection of wild fish stocks should be
  - 27           DFO's first priority - First Nations rely on
  - 28           annual salmon returns for food, social and
  - 29           ceremonial purposes.
- 30

31          The first question there is:

32

33                   How will DFO protect wild fish?

34

35          Now, I realize, Mr. Backman, you're not DFO and  
36          you weren't present at this meeting, but you do  
37          engage in consultation with First Nations in your  
38          capacity as a representative from Marine Harvest;  
39          is that correct?

40      MR. BACKMAN: Yes, that's correct.

41      Q     And would you agree that these are, again and  
42          again, most often the primary concerns that First  
43          Nations bring to the table when you consult with  
44          them?

45      MR. BACKMAN: Yeah, I just mentioned that, that  
46          fisheries-related issues and resources, important  
47          resources are what they bring to the table quite

1 frequently, yeah.

2 Q Okay. And if you could speak a little bit more  
3 about the Kitasoo First Nation? You talked about  
4 them yesterday. I note there, there's a bullet  
5 there, in the meeting notes. It says:

6  
7 How many First Nations are in partnerships  
8 with fish farm companies?

9  
10 DFO says:

11  
12 Kitasoo.

13  
14 So just one. Now, Kitasoo have quite a different  
15 relationship with Marine Harvest than other First  
16 Nations; is that right?

17 MR. BACKMAN: Yes, but before I mention that, it's not  
18 correct. There are, at this point in time, about  
19 14 different relationships, positive supported  
20 relationships between individual First Nations and  
21 salmon-farming companies in British Columbia.

22 To speak specifically to the Klemtu  
23 relationship, it is the longest standing of those.  
24 It's in its eleventh year now, and it involves  
25 both the protocol agreement with the First Nation  
26 which captures their interests and concerns around  
27 the monitoring of their resources to ensure that  
28 there's no damage, no impacts that are  
29 irreversible or problematic for their ongoing  
30 enjoyment of the area.

31 But the other component to that is that they  
32 have employed the operation of the salmon farm to  
33 ensure full operating of their processing plant  
34 located in the Kitasoo village.

35 Q So would you describe it as a joint venture?  
36 Would it be that nature of a partnership?

37 MR. BACKMAN: It comes close to a joint venture nature,  
38 that's correct. They own the plant there. They  
39 own the tenures, they're in their names. We raise  
40 the fish on those tenures and we put the fish  
41 through the processing plant that's on their  
42 property, or on their village.

43 Q So would you say that part of the success in that  
44 relationship is the Kitasoo have particular  
45 decision-making rights as owners of the company,  
46 as owners of the tenure? For example, if Marine  
47 Harvest or DFO was proposing to put more farms in

1           the territory, they would have potentially veto on  
2           that decision; is that correct?  
3   MR. BACKMAN: It's correct that the tenures are in  
4           their name, that's right, and they have the  
5           ability to choose who operates on those tenures.  
6           Additional tenures that we've been successful in  
7           getting in the Klemtu area over the last 10 or 15  
8           years have also gotten into their names (sic).  
9           Other groups that we have relationships with  
10          are also pursuing that same model, that's correct.  
11   Q       So you have relationships with 14 other groups,  
12          you said, but that's the only group that you have  
13          that level of relationship with; is that correct?  
14   MR. BACKMAN: That's correct.  
15   Q       Thank you. Ms. Parker, I'd like to turn to you  
16          now, please, and look a little bit in more detail  
17          at a document Mr. Blair put to you yesterday.  
18   MS. ROBERTSON: Mr. Lunn, could you pull up Exhibit  
19          1803, please? This document is called - well,  
20          it's coming up - it's called "Protection,  
21          Restoration and Enhancement of Salmon Habitat  
22          Focus Area Report" and it references Norway.  
23   Q       Now, you identified this document yesterday, but  
24          you didn't identify an author or a date. It's not  
25          a criticism of you or your counsel at all. We're  
26          all racing through this evidence here, but I think  
27          it is important that we can contextualize this a  
28          little bit further and look into it a little bit  
29          more. Would you be able to give it an author or a  
30          date?  
31   MS. PARKER: No, it came from the web.  
32   Q       All right. So Mr. Blair took you to the bottom --  
33   MS. ROBERTSON: It's pdf page 7, Mr. Lunn.  
34   Q       -- of the page there, so at 2.1.3 you highlighted  
35          this paragraph and then we went quickly over it.  
36          That paragraph basically, would you agree,  
37          summarizes the process of identifying national  
38          salmon rivers and national salmon fjords?  
39   MS. PARKER: Yes.  
40   Q       Okay. And then we very quickly kind of flashed up  
41          the map on the next page, if we could go to that,  
42          and you looked at that.  
43   MS. PARKER: Actually, I think the map went up in  
44          error. We didn't really speak to the map.  
45   Q       Okay. Yeah, there wasn't much said about the map,  
46          but I'm just going to -- what I'm going to say  
47          about the map - and it goes to your comments after

1 - on the left side of the map there are the names  
2 of the salmon rivers that have been identified,  
3 and on the right-hand side of the map are the  
4 names of the salmon fjords that have been  
5 identified by the government as these national  
6 salmon rivers and fjords.

7 So my recollection is you went on to talk  
8 about who you were impressed with in the Norwegian  
9 system, and then you went on to say that in B.C.  
10 we in fact do better than Norway does because of  
11 our siting criteria prohibiting farms from being  
12 one distance within a salmon stream. Is that what  
13 you said?

14 MS. PARKER: Our application of the precautionary  
15 principle is better, yes.

16 Q Right, and you spoke quite a bit about the  
17 precautionary principle in that context. Now, I  
18 read this document in its entirety now, and I saw  
19 three references to salmon farms. I note that you  
20 did say this was more primarily about other  
21 initiatives, hydroelectric development, et cetera.

22 But if we go to page 7, again, please, I  
23 bring this up because earlier we'd heard evidence  
24 about the international context and at 2.1.2  
25 there, the last sentence there, it says quite  
26 specifically:

27  
28 In the national salmon fjords no additional  
29 salmon aquaculture plants will be established  
30 and existing installations will be subject to  
31 more stringent standards for preventing  
32 escapes and controlling sea lice and other  
33 diseases.

34  
35 And then it says:

36  
37 The salmon stocks included will also be  
38 prioritized for other measures aimed at  
39 strengthening the wild salmon.

40  
41 So we have no further farms in these areas, more  
42 stringent controls. I realize we can't get into  
43 comparing controls relative to B.C. and Norway.  
44 Then we have salmon stocks having enhanced  
45 measures of protection. So you'd agree that  
46 that's what that says?

47 MS. PARKER: Yeah, what the report says is that they



1 look at I think it's - off the top of my head -  
2 seven different risks to the fjords, starting with  
3 acidification and I think they have habitat  
4 restoration is above that, and then I think -- I  
5 want to say fifth is salmon farming.

6 Q Right. They do identify salmon farms as being a  
7 risk and that's why they've dealt with it.

8 MS. ROBERTSON: So if we could go to page 9, Mr. Lunn,  
9 of the report, please.

10 Q If we look at the table there, the status of  
11 protection of Atlantic salmon in point 3, it  
12 specifically says:

13  
14 Remove salmon farms from three National  
15 Salmon Fjords.

16  
17 And it names those fjords. It's not a criticism  
18 at all of you; I bring you that because we're  
19 racing through these documents and we can  
20 sometimes leave an impression, a different  
21 impression.

22 We're going back to this one-kilometre siting  
23 criteria and your comments that B.C. is kind of  
24 ahead, in a way, with Norway because of that, but,  
25 I mean, I'm trying to understand how you can say  
26 that a one-kilometre criteria -- or one-kilometre  
27 distance, which I think you basically said  
28 yourself is kind of an arbitrary distance, is  
29 preferable to this kind of area management. Could  
30 you explain how you came to that conclusion?

31 MS. PARKER: I didn't say a one-kilometre setback was  
32 preferable to area-based management. In fact I  
33 think I said in earlier testimony that I thought  
34 that IMAP process would help set geographical  
35 management so that we would have area-based  
36 management. I in fact support the concept of  
37 area-based management.

38 I think one of the things to notice is, in  
39 the Trondheim Fjord system, part of the reason the  
40 Norwegian government is looking at removing salmon  
41 farms from there is the farms are very rarely  
42 operated due to poor environmental conditions, and  
43 it's part of a long-term research program.

44 Q But you did specifically bring up the one-  
45 kilometre distance, did you not?

46 MS. PARKER: I still think the one-kilometre distance  
47 for -- this is on a large scale. It's fjordal,

1 and it doesn't actually reflect the benefit of  
2 things like ephemeral coho reproductive habitat  
3 'cause they're only focusing on major, or what you  
4 might call keystone rivers, and we protect more  
5 than that at a much finer scale.

6 Q Okay. So in terms of the one-kilometre siting  
7 criteria, can we agree that there are no fish  
8 farms within one kilometre of the Fraser River?

9 MS. PARKER: Yes, we can agree.

10 Q We can all agree with that. But we're here,  
11 regardless. We've been here for three weeks  
12 discussing all the potential risks and issues and  
13 uncertainties around salmon farming. You did talk  
14 about the precautionary principle. Wouldn't you  
15 agree -- and this has been canvassed this morning  
16 already, but I think it's such an important point.  
17 Wouldn't you agree that -- I'm going to put it to  
18 you that the use of the precautionary principle in  
19 light of what we've heard about disease risks,  
20 that we should look at what is the furthest  
21 distance that pathogens can travel in the water,  
22 taking into account sea lice and currents, et  
23 cetera, and not site salmon farms within the  
24 distance of what we know to be the Fraser River  
25 salmon migration route. Would you agree with  
26 that?

27 MS. PARKER: No, I wouldn't agree with that. I don't  
28 think that that's -- that's a one-solution answer  
29 to an issue, and the precautionary principle  
30 specifically says you should use a suite of  
31 management measures. If you look at the Hammell  
32 report for the salmon aquaculture dialogues, he  
33 actually holds British Columbia up as a good  
34 example because we also put fish health protection  
35 measures in place.

36 MS. ROBERTSON: My time is up, but I'll also say that  
37 we do have on record an audit of an external  
38 individual, Mr. Gareth Porter, who has quite a  
39 different view of the B.C. criteria in relation to  
40 other countries. So I'll have to leave it there.  
41 Thanks.

42 MR. MARTLAND: Mr. Commissioner, counsel for the  
43 Heiltsuk Tribal Council with 15 minutes.

44 MR. RALSTON: Benjamin Ralston for Heiltsuk Tribal  
45 Counsel, and with me today is my co-counsel, Lisa  
46 Fong.

47

1 CROSS-EXAMINATION BY MR. RALSTON:  
2

3 Q Okay. I would like to begin by expressing  
4 Heiltsuk Tribal Council's support and adoption of  
5 the First Nation Coalition statements regarding  
6 the lack of a First Nation voice on today's panel,  
7 as well as the lack of time allotted to this  
8 topic. Heiltsuk Tribal Council echoes their  
9 disappointment.

10 I'll start off with questions for Mr.  
11 Backman.

12 MR. RALSTON: Mr. Lunn, could you bring up the document  
13 marked for identification as EEE?

14 Q So, Mr. Backman, you testified yesterday that you  
15 read this report?

16 MR. BACKMAN: Correct.

17 Q And, just for clarity, you're not the author of  
18 this report, are you?

19 MR. BACKMAN: No.

20 Q Okay. Furthermore, you have not reviewed the  
21 underlying data on which the author of this report  
22 relies?

23 MR. BACKMAN: I have not.

24 MR. RALSTON: Mr. Lunn, could you bring up page 4 of  
25 this document, and if you could just zoom in on  
26 paragraph 3.1.

27 Q Okay. In reviewing paragraph 3.1 on this page,  
28 Mr. Backman, you would have seen by the list 28  
29 First Nations, all of which have commercial salmon  
30 hatcheries and/or net-pen salmon farms within  
31 their territories. Would you agree that not all  
32 of the listed First Nations have consented to the  
33 presence of these operations within their  
34 territories?

35 MR. BACKMAN: Some of these groups are in opposition to  
36 net-pen salmon farming, yes.

37 Q Okay. To the best of your knowledge, could you  
38 list for us which of these First Nations are  
39 opposed to net-pen salmon farming in their  
40 territories?

41 MR. BACKMAN: To the best of my knowledge, I would  
42 start in the centre column. I think the  
43 Gwawaineuk band, the Namgis band. I would -- oh,  
44 in the first column also the Kwicksutaineuk-ah-  
45 kwaw-ah-mish band. So there's those. In the last  
46 column, the Tsawataineuk and, I believe, the  
47 Heiltsuk for sure, and I believe the Klahoose is

1 also at this point in time in opposition to salmon  
2 farms.

3 Q Okay. Thank you for that. I'd like to start with  
4 the Heiltsuk which would be the last nation on  
5 this list. You've testified that you're familiar  
6 with the net-pen salmon farms that operate in  
7 partnership between Marine Harvest and the  
8 Kitasoo; is that right?

9 MR. BACKMAN: Yes.

10 Q Okay. Are you aware of concerns that the Heiltsuk  
11 had expressed in relation to the licensing of  
12 salmon farms within their traditional territory?

13 MR. BACKMAN: I am aware.

14 Q Okay. Are you aware of the commercial salmon  
15 hatchery in the town of Ocean Falls within  
16 Heiltsuk traditional territory?

17 MR. BACKMAN: I'm aware, yes.

18 Q Are you aware of the lawsuit brought by the  
19 Heiltsuk seeking to quash the water and occupation  
20 licences for this fish hatchery?

21 MR. BACKMAN: I am aware that there's been action taken  
22 in the past, yes.

23 Q Okay. So you would know that Heiltsuk Nation has  
24 a zero tolerance position towards the net-pen  
25 farming of salmon in their territory?

26 MR. BACKMAN: And our most recent visits to the chief  
27 and council a couple of years back, they did  
28 reflect that.

29 Q Okay. And so you would also be aware that the  
30 Heiltsuk Nation's concerns with net-pen salmon  
31 farms come from their perspective that the  
32 potential risks these pose to wild salmon stocks  
33 make them undesirable, correct?

34 MR. BACKMAN: Yes.

35 Q Okay. Thank you. I also want to deal with the  
36 Kwicksutaineuk, the fifth nation on this list.  
37 You're also aware of the litigation being pursued  
38 by the Kwicksutaineuk over concerns with Atlantic  
39 salmon farming in their territory?

40 MR. BACKMAN: I am aware of their actions at this point  
41 in time, yes.

42 Q Okay. All right. That's great. Thank you.

43 MR. RALSTON: Mr. Lunn, could you pull up page 9 of  
44 this document?

45 Q This report concludes by saying that salmon  
46 aquaculture has benefited First Nations in a  
47 variety of ways including socially and culturally,

1 and in terms of prosperity, community self-esteem  
2 and health.

3 Now, given the objections of Heiltsuk Nation  
4 as well as the other nations that you listed,  
5 would you agree -- or, sorry, would you disagree  
6 with this report, that Heiltsuk and the other  
7 nations that oppose net-pen salmon farming in  
8 their territory have benefited, for example,  
9 socially and culturally, or in terms of community  
10 esteem from this industry?

11 MR. BACKMAN: I would disagree that they haven't  
12 benefited because there are individuals from  
13 almost all of those First Nations that I just  
14 mentioned on the list previously who are actually  
15 employed with some of the salmon farming  
16 companies. The chiefs and councils, on the other  
17 hand, are in opposition politically at this point  
18 in time. We hope that that can be changed in the  
19 future, but individually there's people that are  
20 benefiting.

21 Q As a community, you'd say that they've benefited  
22 socially and culturally, then?

23 MR. BACKMAN: There are community benefits when the  
24 individuals are benefiting.

25 Q Okay. Perhaps I can turn to Ms. Stewart for a  
26 moment. You said that you were familiar with the  
27 Kitasoo situation; is that correct?

28 MS. STEWART: Yes, I've spent quite a bit of time in  
29 Klemtu before the farms went in and during the  
30 process of Kitasoo making the decision. I  
31 certainly can't speak on behalf of the Kitasoo in  
32 any way, shape or form. I can only give my  
33 opinions on what I saw transpire.

34 Q Of course. Are you aware of any dissidence that's  
35 taken place between the Kitasoo and some of their  
36 neighbouring nations due to their work with Marine  
37 Harvest on salmon farming?

38 MS. STEWART: I am aware. I've also spent time in  
39 Bella Bella and have been made aware of  
40 overlapping territorial claim issues and concerns  
41 around impacts within Heiltsuk territory from the  
42 Kitasoo farms.

43 Q Mm-hmm. Would you agree, then, with Mr. Backman's  
44 evidence that Heiltsuk, for example, as a nation  
45 that opposes net-pen farming in their traditional  
46 territory, has benefited somehow socially and  
47 culturally from the aquaculture industry?

1 MS. STEWART: That's a very tough one. It's getting  
2 into areas beyond my expertise. Does benefit to  
3 an individual within a community constitute  
4 benefit to the community as a whole, socially and  
5 culturally? I would venture to opine that it does  
6 not. I see a community as a whole, not as just  
7 the individuals within it, and what benefits one  
8 necessarily does not benefit all.

9 Q Okay. Maybe I can turn briefly to Ms. Morton as  
10 well. Could you tell me, are you aware of any  
11 circumstances where involvement of First Nations  
12 in the aquaculture industry - sorry, with  
13 particular respect to net-pen salmon farming - has  
14 led to divisions between First Nations?

15 MS. MORTON: It's really tough to speak of this with  
16 the chiefs in the room, and hopefully they're all  
17 right with me talking about this. But, yes,  
18 there's divisions within the community. There was  
19 a very recent event. I would say there's very  
20 strong feelings in the Broughton Archipelago  
21 against this industry.

22 Q Okay. Well, I'll leave that at that, and I'll  
23 just turn back to Mr. Backman for a moment.

24 So earlier this week we heard evidence from  
25 the witnesses, Dr. Jones and Dr. Saksida. I asked  
26 Dr. Jones to give a list of potentially relevant  
27 salmon farm fish health data that a First Nation  
28 should have access to in order to assess the risk  
29 of having salmon farms in their territory. Now,  
30 Dr. Jones listed information on production data,  
31 the number of fish stocked, the time of stocking,  
32 the treatment histories, the lice counts, the  
33 species of lice, the stages of development of the  
34 fish and the mortalities, with particular respect  
35 to the mortalities from the fresh silver category.

36 When I asked the panel if anyone would add or  
37 subtract from this list, Dr. Saksida stated that  
38 she also thinks it's important that environmental  
39 data is also accessible.

40 Now, Mr. Backman, would you agree that it's  
41 important for this information to be shared with  
42 First Nations so that they can assess for  
43 themselves the risk of having that penned salmon  
44 farming in their traditional territories?

45 MR. BACKMAN: That suite of information and more is  
46 shared with our First Nations, which we have  
47 protocol agreements with right now, as much as

1 they're interested or willing to look at, and as  
2 frequently as they're interested to look at it, so  
3 that's already occurring is what I'm trying to  
4 say.

5 I think that through the new conditions of  
6 licence and the DFO deciding to place all this --  
7 a lot of this information - maybe less than what  
8 we share as a company - but a lot of this  
9 information on their website, some of what you've  
10 mentioned is already going to be achieved. If  
11 individual First Nations want to learn more, I  
12 think they just need to approach the companies  
13 that they're either in partnership with, or  
14 they're having dialogue with and --

15 Q Okay. So stepping --

16 MR. BACKMAN: -- seek that.

17 Q -- out of the circumstances of a partnership, I'm  
18 talking about during a process of consultation,  
19 which you have done some work in the past. Would  
20 you agree that this is the type of information --  
21 or, actually, sorry, would you adopt this list of  
22 information as being useful information to share  
23 with First Nations through a consultation process.

24 MR. BACKMAN: I think information demonstrates our  
25 superior fish health, or times when we were having  
26 problems with -- on the fish farms is important to  
27 share. So, yes, I would agree.

28 Q Okay. Thank you. Now, I'm going to turn to Ms.  
29 Stewart again for one moment. I want to briefly  
30 discuss the issue of bloodwater effluent  
31 management with you.

32 MS. STEWART: Mm-hmm.

33 Q Maybe you could tell us about your understanding  
34 as to what the disease concerns are for bloodwater  
35 management as well as how it's regulated both with  
36 respect to net-pen salmon farms and salmon  
37 processing facilities.

38 MS. STEWART: Sure. Well, again, I'm not a scientific  
39 expert, but the documents I've read and the  
40 scientists I've consulted with have assured me  
41 that viral particles and pathogens can definitely  
42 be present in bloodwater and can enter into ocean  
43 ecosystems from bloodwater either through bleeding  
44 at a farm or through the processing plant.

45 Now, my understanding is that under the  
46 Pacific Aquaculture Regulations, the farms are  
47 required to contain bloodwater and to dispose of

1           it on land. My understanding is also that while  
2           some plants - the Walcan plant, for instance - got  
3           an AIMAP grant to investigate UV treatment of  
4           wastewater discharge, that the current regulations  
5           administered by Environment Canada -- well, there  
6           aren't regulations, there are guidelines.

7           Now, I could be wrong, I'm not an expert in  
8           this area, but what I have found to be publicly  
9           available in the way of documentation about  
10          requirements suggests that there are Environment  
11          Canada guidelines that recommend containment or  
12          treatment of bloodwater from the processing  
13          plants, but there aren't regulations requiring it.

14         Q    Ms. Parker, you had a comment?

15         MS. PARKER: I just wanted to add that it's correct  
16          that the new conditions of licence require that  
17          blood be contained and put through -- from the  
18          farm, be put through -- on land, and that could  
19          include through a processing plant, and that the  
20          British Columbia processing plants for cultured  
21          fish are looking at -- are moving towards UV  
22          sterilization. However, that's not a requirement  
23          for any other processing plant, not for shellfish  
24          nor for commercial finfish from commercial  
25          capture.

26         Q    So maybe, Ms. Parker, you could give your evidence  
27          on what the current standards are for salmon  
28          processing plants.

29         MS. PARKER: I don't have exact details, but there is a  
30          drum filtration required, separation of solids, a  
31          resident time in a sump and then there is the --  
32          then the resulting effluent is discharged at depth  
33          in the marine environment.

34         MS. STEWART: And there is particulate screening at the  
35          end of the pipe, but that doesn't address the  
36          issue of pathogens or viral particles.

37         Q    Okay. Ms. Morton, you had a comment?

38         MS. MORTON: Yes, I've examined several plankton nets  
39          that were put over the end of the pipe at Walcan  
40          and brought up to the surface and shipped up to me  
41          and they had a high concentration of living sea  
42          lice and also pieces of fish, scales and pieces of  
43          fins and heart. So there was no screen on the end  
44          of it.

45         Q    Thank you.

46         MS. STEWART: If I could just add one comment? This  
47          has been an ongoing issue for a very, very long



1 time, the issue of processing plants and the  
2 discharge of bloodwater and contaminated water.  
3 It came up during the Salmon Aquaculture Review.  
4 Quite frankly, when I hear about responsible  
5 management on the part of the Department of  
6 Fisheries and Oceans or the province, it's  
7 shocking to me that in 2011, we are still  
8 addressing the question of whether or not there  
9 will be regulations and effective treatment at the  
10 plants that process commercial fish, wild-caught  
11 fish, and aquaculture products.  
12 Q Okay. Thank you. And again, Ms. Stewart, could  
13 you tell me, are you familiar with views expressed  
14 by a Dr. Mark Sheppard on the regulation of  
15 bloodwater effluents with respect to salmon  
16 processing facilities?  
17 MS. STEWART: I am not. Ms. Morton may be. No?  
18 Q Are you, Ms. Morton?  
19 MS. MORTON: Not exactly on bloodwater, but he did  
20 disagree. He didn't see how there could be living  
21 sea lice coming out of the end of the pipe, but  
22 there were in my sample.  
23 MR. RALSTON: Okay. Maybe, Mr. Lunn, could you please  
24 bring up Tab number 36, the Conservation  
25 Coalition's documents?  
26 MS. STEWART: Okay, I have read emails on this issue,  
27 but didn't remember exactly who was involved. I  
28 do remember that there were comments from Dorothy  
29 Kieser.  
30 Q Okay. So are you familiar with this email chain?  
31 MS. STEWART: Yes, I recognize this.  
32 MR. RALSTON: Okay. Could I have this document marked  
33 as the next exhibit?  
34 THE REGISTRAR: It will be Exhibit 1843.  
35  
36 EXHIBIT 1843: Email chain re "Effluents and  
37 New CFIA and/or DFO regulations"  
38  
39 MR. RALSTON: And, Mr. Lunn, could you then bring up  
40 Tab number 42 of the Conservation Coalition's  
41 documents?  
42 Q Are you familiar with this email chain?  
43 MS. STEWART: Yes, I am.  
44 Q Okay. Could you tell me -- could you briefly  
45 identify the topic of the exchange?  
46 MS. STEWART: Well, in the first one, it was a  
47 discussion that involved Dorothy Kieser who worked

1 for the province, around the issue of bloodwater,  
2 and it was -- if we can scroll down, I think we  
3 can see the date when the email chain began. No,  
4 well, maybe it's not Dorothy Kieser. Okay, sorry,  
5 this is not the one I thought it was.

6 But, yes, both documents are getting into  
7 extensive discussion around the issue of  
8 bloodwater, and in the second document, March  
9 Klaver from DFO points out that Environment Canada  
10 was conducting a three-year assessment of fish  
11 processing plants across the country and looking  
12 at how to deal with effluent issues, and then Andy  
13 Thomson responds basically just saying let's  
14 recommend that people get in touch with the  
15 Environment Canada rep on this issue.

16 So a three-year process was underway from  
17 2006 to 2009. We're now in 2011, and the latest  
18 web searches I've done show that all that exists  
19 is guidelines.

20 MR. RALSTON: Okay, thank you. Could I have that made  
21 an exhibit as well?

22 THE REGISTRAR: Exhibit 1844.

23 MR. RALSTON: Okay. Those are my questions. Thank  
24 you.

25  
26 EXHIBIT 1844: Email chain re "Effluent  
27 Processors and Vessels"  
28

29 MR. MARTLAND: Mr. Commissioner, I don't believe that  
30 there is any re-examination. I had a very brief  
31 final remark and Mr. Blair, I think, had an  
32 additional point he wished to make as well, a  
33 final point.

34 MR. BLAIR: Alan Blair for the B.C. Salmon Farmers.  
35 Just by way of assistance, Ms. Robertson raised  
36 the question of EEE for identification, Mr. Lunn,  
37 if you could put that on the screen. Thank you to  
38 my youthful and compute savvy assistant, Mr.  
39 Hopkins-Utter, who -- not that one. It was the  
40 Norway one. I thought that was EEE, the one with  
41 the date that said it was Norway. Oh, thank you,  
42 1803. That wasn't my useful assistant's fault;  
43 that was mine.

44 We went on the web because the answer from  
45 Ms. Parker with respect to the question of when  
46 and where she got it, and her answer a moment ago  
47 was she found it on the web. If this assists

1 counsel, I've sent the link to Mr. Martland. No  
2 guarantee that I'm correct on this, but just for  
3 the record, I think it's a report and this may  
4 refresh Ms. Parker's memory.

5 It's from a site called NASCO, which is an  
6 international organization established in 1984.  
7 From a quick read of the report online in the last  
8 two minutes, we think it was 2008 to 2010, but we  
9 can provide the link through Mr. Martland and  
10 others can search that. So the Norway document is  
11 from that organization. We sent it to Mr. Lunn as  
12 well. We think the date - and we couldn't tell in  
13 the quick time we were searching - was in the  
14 range of 2008 to 2010, so if that assists  
15 everybody. If we learn anything more, we can send  
16 that through Mr. Martland's office.

17 I did have, if I have a minute, and I believe  
18 I might, a question just on HHH for  
19 identification, Mr. Lunn. Just to explain, Ms.  
20 Robertson indicated that she was prepared to mark  
21 it for identification because of an objection I  
22 let her know during the break. Just to be clear  
23 on that objection, the lateness of time wasn't the  
24 only issue because we're all guilty of that, but  
25 it did come last night in the middle of a two-day  
26 panel, and so the panel, none of them had an  
27 opportunity to look at this report.  
28

29 CROSS-EXAMINATION BY MR. BLAIR, continuing:  
30

31 Q Is that correct, Mr. Backman, you did not see this  
32 report in your preparation?

33 MR. BACKMAN: Not in my preparation, no.

34 Q Thank you. Counsel took you, Mr. Backman, to page  
35 4 and made reference to being technically and  
36 economically feasible. Do you recall that  
37 reference?

38 MR. BLAIR: Mr. Lunn, can you perhaps go to page 4?

39 MR. BACKMAN: I do.

40 MR. BLAIR:

41 Q Thank you. And on page 5, there's a reference to  
42 the reviewers. There appears to have been some  
43 debate amongst the reviewers and there's a note  
44 there:  
45

46 Accordingly, the findings of this report are  
47 to be perceived as those of the authors

1                   alone.

2  
3                   Do you see that reference, sir?

4 MR. BACKMAN: I do.

5 Q   Do you know this report from having read it in  
6       some earlier --

7 MR. BACKMAN: I have, I'm familiar with the report from  
8       earlier times.

9 Q   A number of business case assumptions were made in  
10     this report; is that correct?

11 MR. BACKMAN: Correct, yeah.

12 Q   Some of those business case assumptions were with  
13     respect to the growth, the rate of fish -- the  
14     density of fish, cost of feed, cost of oxygen into  
15     a closed containment system and operating costs.  
16     Is that your recollection?

17 MR. BACKMAN: Yes, it is.

18 Q   And do you share the view of the authors that it's  
19     technically and economically feasible or not?

20 MR. BACKMAN: This report had a number of errors  
21     involved with it. We would have found a number of  
22     different outcomes, so I would have to say, no, I  
23     couldn't agree with this particular one.

24 MR. BLAIR: Thank you. Thank you, Mr. Commissioner.

25 MR. MARTLAND: I think Ms. Robertson was asking whether  
26     that changes Mr. Blair -- she's whispering to me  
27     whether that changes Mr. Blair's view. I take it  
28     his objection remains? If I recall the documents  
29     correctly, Ms. Stewart may have indeed spoken, but  
30     I may be confusing the documents.

31 MS. STEWART: No, but as Mr. Backman has confirmed,  
32     we're both quite familiar with this report and I  
33     know that he's reviewed it in the past.

34 MR. BLAIR: Yes, I was merely wanting to be sure that I  
35     had the opportunity to have at least a minute of  
36     re-examination. Now that I've had that and it's  
37     on the record that Mr. Backman's familiar with it  
38     and disagrees with the conclusions, I'm prepared  
39     to remove my objection, and if counsel wishes to  
40     have it marked...?

41 MS. ROBERTSON: May we mark it as the next exhibit,  
42     please?

43 MR. BLAIR: Mr. Commissioner, that may not be the  
44     fastest an exhibit has ever been marked as a full  
45     exhibit, but it maybe the fastest that an  
46     objection has been ruled upon -- rather, agreed  
47     upon by counsel.

1 THE REGISTRAR: The "for identification" caveat HHH  
2 will be removed and that will be marked as Exhibit  
3 1845.

4 MS. ROBERTSON: Thank you.

5  
6 EXHIBIT 1845: Document titled "Technologies  
7 for Viable Salmon Aquaculture" by Andrew  
8 Wright, formerly marked as identification  
9 exhibit HHH

10  
11 MR. MARTLAND: Mr. Commissioner, we're at the  
12 conclusion of the evidence on the topic of  
13 aquaculture, and I just wanted to, from Commission  
14 counsel's perspective, thank these witnesses who,  
15 because we have air-conditioning problems,  
16 literally and metaphorically both were in the hot  
17 seat for a long two days. We're grateful for  
18 their involvement. We're also grateful for the  
19 hard work and the discipline and the cooperation  
20 of all counsel in allowing us to put this evidence  
21 before you. The hearing can now, I believe, be  
22 adjourned. Thank you.

23 THE COMMISSIONER: Thank you, Mr. Martland. I wanted  
24 to thank Dr. Morton and Ms. Stewart, Ms. Parker  
25 and Mr. Backman for your attendance at these  
26 proceedings, in your case, Dr. Morton, for more  
27 than just the last two days, and perhaps others of  
28 you as well, I don't know, and to thank you for  
29 participating here over the two days that you  
30 have.

31 I wanted to thank Commission counsel who have  
32 had a long session to prepare for and to undertake  
33 and to process. I'm grateful to them for the work  
34 that they did, and to all counsel, as Mr. Martland  
35 said, who were very cooperative, and I'm certainly  
36 very grateful to all of you and to all the members  
37 of the public who took their time from their  
38 families, their jobs, their recreation, to attend  
39 here. Thank you very much.

40 We're now adjourned, I believe, until the  
41 15th; is that correct, Mr. Martland?

42 MR. MARTLAND: Sorry, I'm looking to someone else for  
43 guidance.

44 THE COMMISSIONER: I think it is.

45 MR. MARTLAND: Mr. Lunn is nodding yes.

46 THE COMMISSIONER: It is. It's Thursday, September the  
47 15th at 10:00 a.m. Thank you very much.

1 THE REGISTRAR: The hearing is now adjourned to  
2 Thursday, September 15th at 10:00 a.m.  
3

4 (PROCEEDINGS ADJOURNED TO SEPTEMBER 15, 2011  
5 AT 10:00 A.M.)  
6  
7  
8

9 I HEREBY CERTIFY the foregoing to be a  
10 true and accurate transcript of the  
11 evidence recorded on a sound recording  
12 apparatus, transcribed to the best of my  
13 skill and ability, and in accordance  
14 with applicable standards.  
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Pat Neumann  
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22 true and accurate transcript of the  
23 evidence recorded on a sound recording  
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38 with applicable standards.  
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Susan Osborne  
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I HEREBY CERTIFY the foregoing to be a true and accurate transcript of the evidence recorded on a sound recording apparatus, transcribed to the best of my skill and ability, and in accordance with applicable standards.

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Diane Rochfort

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