

COHEN COMMISSION OF INQUIRY INTO THE DECLINE OF SOCKEYE SALMON INTO THE FRASER RIVER

FINAL WRITTEN SUBMISSION

**Prepared on behalf of Area D Salmon Gillnet Association and
Area B Harvest Committee (Seiners)**

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Date: October 17, 2011**

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EXECUTIVE SUMMARY

This submission documents the Department of Fisheries and Oceans' ("DFO" or the "Department") total ineffectiveness in discharging their statutory responsibilities to the citizens of Canada. The sockeye salmon of the Fraser River, an iconic public resource, having cultural, ecological and economic significance, may suffer catastrophic consequences unless radical and immediate action is taken by DFO. The loss of this resource, if it were permitted to happen, will be history repeating itself after the loss of the East Coast cod fishery. The Government of Canada demonstrated foresight in calling this costly Inquiry, and their initiative can be taken as evidence that Ottawa is both concerned with the sustainability of Fraser sockeye and committed to taking radical action where necessary.

The sockeye resource has suffered significant losses over the past 15 – 20 years. This situation culminated in almost a complete closure of commercial sockeye fishing from 2007 - 2009. This Inquiry was mandated to examine how this decline came about, and look at what remedial steps can be taken to ensure a healthy sustainable stock for future generations.

It is our position that DFO has failed to discharge its constitutional responsibilities pursuant to the *Fisheries Act*, R.S.C., 1985, c. F-14. The statute and its regulations provide the legislative authority for the management and regulation of fisheries and the protection of fish habitat. Regrettably, for reasons described in this submission, DFO has abdicated its responsibilities.

First and foremost, the funding crisis is largely responsible for the problems facing DFO and its management of the resource. Our submission documents DFO's deficient financial capacity in recent times and then warns of the impending financial crisis with the upcoming announced budget cuts 2012 - 2015. It is our position that this issue is paramount. However, the reality is that, unless Treasury Board allocates significant new financial resources to the Department, most of this Commission's recommendations will be for naught.

One response by DFO to the recent decline in stock was the 2005 enactment of the Wild Salmon Policy, a strategy that was intended to promote bio-diversity and the general sustainability of the salmon. The stakeholders that bought in to this strategy were very hopeful that DFO would have the political will and financial capacity to effectively implement the policy. In reality, this initiative has been a complete failure.

This submission substantiates how DFO has failed and why. The policy was, in our opinion, doomed to fail as it never received designated funding from Treasury Board. With the Department already hindered as a result of limited financial capacity in 2005, it should come as no surprise that this added financial burden of attempting to implement a costly and complicated policy was totally unrealistic.

The DFO is in the midst of a serious fiscal crisis and our submission describes how this crisis has incapacitated DFO from implementing the Wild Salmon Policy ("WSP") and generally fulfilling its overall legislative responsibilities.

Firstly we look at the mandate specific to the WSP, and how the lack of financial resources impairs the department's ability to discharge its responsibilities. After six years, not one conservation unit has been worked up to the point of completion, even on a pilot basis. Furthermore, we say that the WSP requirement that harvest management decisions would only be made with a socio-economic analysis has gone completely ignored. No socio-economic studies have been completed.

Secondly this submission looks at the mandate specific to the WSP and to DFO's overall statutory obligation. Here too, regrettably, DFO falls short of an acceptable standard.

Here are the failures described in our submissions:

- DFO has failed to carry out adequate stock enumeration and catch monitoring to meet the WSP needs for analysis on a Conservation Unit basis.
- Habitat management, enforcement enhancement and restoration have been virtually ignored. Not one habitat Status Report has been prepared under the WSP.
- There has been no Nursery Lake Assessments for lakes with weak stocks. In fact, only three large lakes have been studied as of late.
- Selective fishing programs to protect weak stocks in a mixed fishery had their funding terminated in 2002.
- Habitat Stewardship Programs were cut back since 2003.

- Salmon Enhancement Programs were significantly reduced by the mid-1990's.
- Lake Enrichment Programs were terminated other than one lake on Vancouver Island.
- The test fishery funding runs out soon, and there is no outright commitment to continue with the program.
- Research programs have been terminated (e.g. the telemetry studies), and ongoing and future research has an uncertain future.

This devastating situation has resulted from DFO's financial incapacity to take on these above responsibilities in an elementary way, let alone in a manner that ensures the sustainability of the resource. This financial situation, plus an overall mismanagement of many of DFO's responsibilities, has led to this current situation, which in turn led to the calling of this Inquiry.

With the WSP implementation and DFO's statutory responsibilities falling far short of expectation, the consequence of this situation falls on the commercial fishery that has suffered immense economic loss, as documented in this submission.

The submission then visits the "Non-fiscal" issues of DFO's management, and here too we find nothing but shortcomings.

We focus on the bio-diversity debate, over-escapement and the WSP. The uncontroverted evidence of three eminent scientists, Dr.'s Woodey and Walters, and Mr. Lapointe, all warn of serious impending consequences if DFO continues on its reckless path of over-escaping healthy stocks beyond their Maximum Sustainable Yield. We cite the testimony tendered at this hearing that this "great experiment" has failed. Yet the evidence is that DFO blindly ignores the evidence as presented by these scientist scholars. In the eyes of DFO, over-escapement consequences are not within the consciousness of their managers when considering the "precautionary approach". The coincidence is that since the implementation of the "Rebuilding Strategy" of 1987, where greater and greater escapements were dictated, the overall sustainability of the stock has become seriously imperilled. This coincidence appears to be lost on senior DFO officials.

The submission also deals with:

- Allocation Issues
- The Consultative Process
- Terminal fisheries
- The FSC Fishery

- Aquaculture

The submission then speaks generally to the recent decline of Fraser sockeye and the mandate of the Commission to attempt to explain why this situation arose. Lastly we advance some recommendations for consideration.

COMMISSION'S MANDATE

Over the past two decades, British Columbia has experienced a significant decline in sockeye salmon stocks in the Fraser River, resulting in significant concern for the health of Fraser River sockeye salmon stocks as well as serious economic impacts, including repeated closures of the fishery. There are many factors that may be contributing the decline, including environmental changes along the Fraser River, marine environmental conditions and fisheries management.

The Government of Canada, as an expression of its commitment to identifying the reasons for the decline and improving fisheries management policies, practices and procedures, established this Commission of Inquiry with a mandate:

- i. to conduct the Inquiry without seeking to find fault on the part of any individual, community or organization, and with the overall aim of respecting conservation of the sockeye salmon stock and encouraging broad cooperation among stakeholders,
- ii. to consider the policies and practices of DFO with respect to the sockeye salmon fishery in the Fraser River – including the Department's scientific advice, its fisheries policies and programs, its risk management strategies, its allocation of Departmental resources and its fisheries management practices and procedures, including monitoring, counting of stocks, forecasting and enforcement,
- iii. to investigate and make independent findings of fact regarding:
 - a. the causes for the decline of Fraser River sockeye salmon including, but not limited to, the impact of environmental changes along the Fraser River, marine environmental conditions, aquaculture, predators, diseases, water temperature and other factors that may have affected the ability of sockeye salmon to reach traditional spawning grounds or reach the ocean, and
 - b. the current state of Fraser River sockeye salmon stocks and the long term projections for those stocks, and

to develop recommendations for improving the future sustainability of the sockeye salmon fishery in the Fraser River including, as required, any changes to the policies, practices and procedures of the Department in relation to the management of the Fraser River sockeye salmon fishery.

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**I. THE FISCAL CRISIS INCAPACITATES DFO FROM IMPLEMENTING THE WILD
SALMON POLICY AND GENERALLY FULFILLING ITS LEGISLATIVE
RESPONSIBILITIES**

First and foremost, it is evident that DFO's capacity to carry out the implementation of the Wild Salmon Policy (the "WSP")¹ and discharge its statutory responsibility is primarily dependent upon financial capacity. No matter how frugal and creative senior DFO personnel may be in their budgetary management, the fiscal capacity of DFO will largely dictate the effectiveness of DFO meeting its mandate.

We take the position that DFO is experiencing a full-fledged financial crisis, rendering the Department impotent both in terms of its ability to properly implement the WSP, and more generally, to effectively discharge their onerous responsibilities to the citizens of Canada to protect this valuable public resource.

If the current fiscal crisis is not addressed, the shortcomings of the current regime will remain unresolved and the long-term sustainability of the resource will remain imperilled. The insight and creativity of this Commission in making recommendations will have little impact if the funding crisis is not solved. The Federal Government's establishment of this Commission, at great expense, is a strong indication that the sustainability of the Fraser River sockeye salmon ("Fraser sockeye") is of critical importance to Canadians and that radical strategies must be immediately implemented to arrest any possibility that this resource might be in jeopardy.

The urgency of this fiscal crisis is evident given the Federal government's restraint initiatives. The Commission heard evidence of critical reductions in upcoming budgets over the next three

¹ Exhibit #8 Canada's Policy For Conservation Of Wild Pacific Salmon (The Wild Salmon Policy)

fiscal years, representing a reduction of 3% or \$56 million nationally.² However, these figures do not provide a full sense of the impact of these cuts. Firstly, despite those reductions, the Federal government will have to meet its contractual obligations contained in the Public Service Alliance Collective Agreement which require increases of 1.75%, 1.5%, and 2% over the next three years.³ Secondly, these budget figures do not factor in extra monies that were made available to the Department under the Economic Action Plan. Ms. Dansereau describes this as "...two years of extra spending...".⁴ Whether temporary or not, the reality is that over the last two years the Department functioned with an infusion of additional capital that, nevertheless, was deficient in meeting DFO responsibilities. When factoring in these stimulus monies, and applying the anticipated cuts for the next three years, the reductions in budget amount to 25%.⁵ In the face of these broad budgetary restraints in Ottawa, it will be challenging for DFO to carry out its mandate and meet the expectations of Canadians.

The government should also take heed of testimony at this Inquiry indicating that, historically, Western Canada received a disproportionately small allocation of federal funding. As Mr. Pat Chamut (Former ADM, DFO Fisheries Management and Special Advisor, Wild Salmon Policy) testified:

22 But I'd go on to say it's -- it would be -- I
23 don't think even that would be sufficient. This
24 is -- the Pacific region oftentimes is, I won't
25 say ignored, but it probably has less priority in
26 Ottawa than does -- than some of the Atlantic
27 regions.⁶

It is incumbent upon this Commission and senior DFO staff to be clear that the resource can only be protected with a substantial infusion of money. During their testimony at the Commission, a few senior DFO officials professed that the funding was adequate to allow the Department to discharge its responsibilities. In light of these inaccurate statements, we submit that a significant attitude change within DFO is needed. For example, during my questioning of the Deputy Minister, Claire Dansereau, she testified as follows:

20 Q Well, this is an awfully general question to you,
21 Ms. Dansereau, but would you agree with me, or let
22 me ask you this, are all science programs,

² Hearing Transcript (September 28, 2011), p. 97, l. 34

³ Hearing Transcript (September 27, 2011), p. 13, l. 4.

⁴ Hearing Transcript (September 27, 2011), p. 12, l. 1.

⁵ Exhibit #1922, Report on Plans and Priorities 2011-12, pdf p. 17).

⁶ Hearing Transcript (November 29, 2010), p. 73, l. 22

23 departments, projects, stock assessment, stream
24 enumerations, et cetera, adequately funded up till
25 now, in your opinion, during the time of your
26 tenure?
27 MS. DANSEREAU: I would say yes, but it -- you know,
28 I'm sure if we spoke to others at a greater --
29 more directly connected to each of the activities,
30 they would probably prefer to have more money.⁷

With the greatest of respect to Ms. Dansereau, she cannot possibly take the position that she her department is adequately funded. If she does, she clearly does not appreciate the shortcomings of DFO's management of late. If she does not, she is committing a disservice to Canadians and to the Commission by giving the impression that DFO is discharging its statutory mandate effectively, when it is not. The overwhelming body of evidence heard throughout these hearings was that funding shortages were impairing an effective management of the Fraser sockeye resource.

In one of the final days of the hearings, I gave Ms. Dansereau the opportunity to reflect on the litany of concerns expressed by numerous witnesses whose evidence can be generally summarized as follows:

- (a) Under current financial conditions DFO was incapable of effectively discharging its legislative mandate, and
- (b) That it is critical that increased funding be made available.

In cross examination, I put the above quoted passage of Ms. Dansereau's to Dr. Brian Riddell, (former DFO Science Division Manager):

45 DR. RIDDELL: Well, thank you for that loaded question.
46 Well, I don't think there's any question that I
47 disagree. I am not surprised at all at her reply
1 because, of course, these people are under
2 significant pressure for national priorities and
3 I'm sure there's a very substantial debate in
4 Ottawa where the money goes to the various
5 departments. But I don't think there's any
6 question that you would get a very common response
7 on the west coast with respect to salmon stock
8 assessment, I have said publicly here, I believe,

⁷ Hearing Transcript (November 2, 2010), p. 63, l. 20

9 that it's definitely at a marginal responsible
10 level that sort of what we would define as a core
11 stock assessment responsibility is barely being
12 met now. I suppose the irony of this is that I've
13 also told you that there's always a direction to
14 ensure that Fraser Sockeye assessment is met.
15 We've heard that there's a couple of exceptions to
16 that. So the funds that come here --
17 Q Excuse me. At great expense to other stock.
18 DR. RIDDELL: Thank you. I was just about to point out
19 that --
20 Q Thank you.
21 DR. RIDDELL: -- what happens is the money, on a
22 limited budget, goes to the Fraser Sockeye first
23 and there are other salmon species in the Fraser
24 that are not sufficiently funded. And then
25 outside the Fraser in years where money is tight
26 definitely takes a major reduction in order to
27 meet the requirements of the Fraser Sockeye. And
28 as I point out again, we are not even doing
29 assessments of Fraser pink salmon. So to say that
30 we're meeting a minimum core is simply not
31 accurate. But in all honesty, how would you know
32 what sort of advice is getting up to that level?
33 She may well believe that's true because that's
34 what she's told. I think that it would be a
35 matter of record, of simply looking at the history
36 of the stock assessment programs, that they are
37 not being funded adequately.⁸

Dr. Riddell also sounded the alarm regarding the insecurity DFO would experience if it were to become dependent on external funds:

18 But the serious concern I hear is constantly
19 less funds, less funds, less funds. So you're
20 more dependent on external funds and that's highly
21 insecure, as well.⁹

Until there is recognition by senior DFO officials that they currently lack the capacity to carry out their mandate, the crisis in the management of the resource will remain. Management's

⁸ Hearing Transcript (February, 10, 2011), p. 42, l. 45, p. 43, l. 1.

⁹ Hearing Transcript (February 9, 2011), p. 69, l. 18.

complacency, as witnessed by their evidence of not asking for budgetary increases, flies in the face of the federal government's recognition of the seriousness of the issue by calling this costly Inquiry. To deny the obvious fiscal crisis, as reported by numerous witnesses at this hearing, does not serve the public interest.

This department needs a significant infusion of new money if the following consequences are to be avoided:

- (a) The WSP will never be comprehensively implemented,
- (b) Other DFO programs for Fraser sockeye will suffer, and
- (c) Many other programs in the Pacific Region will suffer shortfalls.

This latter point was stated by a number of witnesses throughout the hearings. Witnesses warned that, since Pacific sockeye were prioritized as a result of international agreement, the funding of other programs throughout BC and the Yukon suffered. As Dr. Riddell explained:

24 And so if you maintain the
25 Fraser sockeye programs, what we were doing is
26 continually reducing other activities around
27 British Columbia in order to sustain a core
28 program that was our top priority in Fraser
29 sockeye.¹⁰

Dr. Riddell further testified:

38 But there's no question that over time, we have
39 had to reduce the number of projects just to meet
40 the budget reductions.
41 Q And if it is the choice of DFO to give priority to
42 the sockeye programs, it obviously is at the
43 expense of the other stocks, the other species of
44 salmon that are not receiving the attention they
45 should and I think both of you have generally
46 testified to that yesterday; is that fair to say?
47 DR. RIDDELL: Absolutely. That's definitely what we
1 were in during my tenure as Division Head that you
2 knew that you were going to fund the Fraser
3 sockeye as a first priority. You looked at them
4 carefully to make sure that they were justifiable

¹⁰ Hearing Transcript (December 1, 2010), p. 5, l. 24.

5 cost, but after that you had to pay for Fraser
6 sockeye and then you had the residual money for
7 everything else in the province.¹¹

Ms. Carol Cross (Government of Canada as Manager, Salmonid Enhancement Program Strategic Initiatives, Department of Fisheries and Oceans) stated:

14 MS. CROSS: If there is a requirement for us to
15 contribute to the rebuilding of additional stocks
16 that are at risk, those are extensive programs.
17 Under our current budget, that would require us to
18 realign some of the current projects to meet
19 those.
20 Q And realign would mean taking from one project to
21 fund another project?
22 MS. CROSS: Would mean to fund those, that's correct.
23 Q And that could be to the loss of instead of maybe
24 Fraser River sockeye, it could be the loss of
25 another specie of salmon in the Fraser watershed
26 or indeed anywhere in the province, correct?
27 MS. CROSS: It would be a realignment of projects, yes.¹²

Under-funding DFO has a severe impact on the attempted implementation of the WSP, and more generally on DFO's ability to fulfil its mandate pursuant to statute. This submission will highlight some of the key evidence tendered at the Inquiry that speaks to the impact of DFO's financial shortfalls on many important initiatives.

A. The Consequences of Under-funding DFO

i. The Wild Salmon Policy

The architects of the WSP intentionally or unintentionally designed a policy that could not possibly be effectively implemented in a situation where no new money is budgeted to support its implementation. The WSP dictated that "implementation must be accomplished within DFO's existing resource capability..."¹³ In the context of budgetary reductions during the six years since the policy was adopted, expectation of substantive implementation was totally unrealistic. As Dr. Pat Chamut (former ADM, DFO Fisheries Management and Special Advisor, Wild Salmon Policy) testified:

¹¹ Riddell, (February 3, 2011), p. 29, l.37 et seq,

¹² Cross, (May 2, 2011), p. 90, l. 14

¹³ Exhibit #8 Canada's Policy For Conservation Of Wild Pacific Salmon (The Wild Salmon Policy) p. 35

42 MR. CHAMUT: Well, the first and easiest solution is
43 probably about thirty or forty million dollars
44 would be a good start. I mean, that would
45 obviously be a very important contribution to
46 progress. But beyond that, I think that what's
47 really important is to highlight this as a
1 critical priority within the region, and as I sit
2 here I'm reasonably sure that it is a priority
3 within the region, but I'm not sure exactly where
4 it sits among the various responsibilities that
5 the department has to carry out, because it does
6 much more than just manage salmon and manage
7 salmon and -- or Sockeye salmon in the Fraser.
8 But I think it has to be identified not just
9 as a responsibility of the associate RDG, but has
10 to come from the regional director general as a
11 priority, and I think she needs to identify
12 someone that is going to really be accountable for
13 pulling all the various bits and pieces within the
14 region together to make this happen, because
15 sometimes there are barriers between sectors,
16 between fish management, between science, between
17 habitat, and I think you need someone that sort of
18 bridges all of those sectors to be able to lay
19 down the priority and make sure that people are
20 doing what they have agreed to do, and I think the
21 associate RDG is probably that person.
22 But I'd go on to say it's -- it would be -- I
23 don't think even that would be sufficient. This
24 is -- the Pacific region oftentimes is, I won't
25 say ignored, but it probably has less priority in
26 Ottawa than does -- than some of the Atlantic
27 regions.¹⁴

Dr. Riddell responded that it would take \$3 to \$5 million at the outside to allow DFO to make "substantial progress".¹⁵ Mark Saunders (Manager, Salmon Assessment and Freshwater Ecosystems, DFO Science, and Former Wild Salmon Policy Coordinator) testified that the restrictions on WSP funding have prejudiced the expeditious implementation of the policy.¹⁶ In response to you, Mr. Commissioner, who asked how realistic it was to accomplish

¹⁴ Hearing Transcript (November 29, 2010), p. 72, l. 42.

¹⁵ Hearing Transcript (December 1, 2010), p. 9, l. 21.

¹⁶ Hearing Transcript (December 8, 2010), p. 56, l. 39.

implementation in these circumstances, Ms. Sue Farlinger answered, “So in retrospect, I would say.....there was some naivety in the development of this policy”.¹⁷

I then followed the Commissioner’s question with a question regarding whether senior DFO personnel could be said to continue in a naïve state to think that there might be any significant progress on implementation in the future, again in light of the lack of resources.

33 MS. FARLINGER: I think my answer to that is based on
34 some of the things we've learned overall and,
35 specifically, in the five years around the Wild
36 Salmon Policy, which is it will take us a very
37 long time to collect all of the information
38 envisioned under the Wild Salmon Policy. And I
39 think that it would be very difficult to put a
40 date or a time or, in fact, any kind of end point
41 on the gathering of even the first tranche of that
42 information.¹⁸

This evidence certainly does not instill any confidence that there will be any substantive WSP implementation in the next few years.

ii. The Limited Implementation of the WSP

The testimony of senior DFO witnesses to this inquiry left the impression that the WSP was being substantially implemented. As Ms. Dansereau testified:

19 So the essence
20 of the document is what I think is being
21 implemented, and that's how I mean the decisions
22 are being informed because they are being informed
23 against these guiding principles and by some of
24 the actions.
25 Now, there are pockets of insufficient
26 knowledge, I completely grant you that, but those
27 knowledge gaps, we are working to fill.¹⁹

Her response infers that there has been a substantial implementation of the WSP and that only “pockets” remain to be dealt with. With respect, this statement is baseless and unfounded. It is

¹⁷ Hearing Transcript (September 23, 2011), p. 83, l. 21.

¹⁸ Hearing Transcript (September 27, 2011) p. 22, l. 33.

¹⁹ Hearing Transcript (September 22, 2011), p. 60, l. 19

our submission that the WSP remains mostly unimplemented at this time. Where harvest management decisions are being made in the spirit of the policy, as certain witnesses testified, they are speaking to the curtailment of harvest in the name of weak stock preservation. However, evidence highlighted in this submission will demonstrate that the WSP is a comprehensive initiative with many components intended to ensure the preservation of weak stocks. Sadly, almost none of these initiatives have been operationalized.

It is our submission that the WSP has not been implemented, as evidenced by some senior former DFO witnesses who appear to be embarrassed with the current situation. Mr. Chamut, one of the authors of the policy, was asked about his 5 year appraisal of where things stand with the WSP and he testified:

17 MR. CHAMUT: Well, I would be -- my honest reaction is
18 one of disappointment. I did anticipate that this
19 was going to be a difficult job to undertake, but
20 I did understand that over the period of five
21 years that I would have expected there would have
22 been more progress made. In particular, we talked
23 about the desirability of trying to do things like
24 pilot projects, or at least testing out some of
25 the approaches, particularly under Strategy 4. I
26 thought that it would have been quite instructive
27 to take a particular geographic area or management
28 area and try to demonstrate how you would use
29 Strategy to do the sorts of things that are
30 contemplated under the policy, and I would have
31 expected that there would have been something of
32 that nature that would have been completed within
33 five years. So that's, I think, is a
34 disappointment to me. It's probably a little bit
35 slower than what I had anticipated.²⁰

Dr. Jim Irvine (Research Scientist, DFO Science) spoke that the “leadership is lacking in terms of implementation.”²¹ We take the position that the evidence establishes that, over the past six years, there is little evidence indicating that there has been any substantive implementation of the policy. Here, we set out the reasons for our position:

²⁰ Hearing Transcript (November 29, 2010), p. 72, ll.17.

²¹ Hearing Transcript (December 8, 2010), p. 59, l. 29.

(a) No Costing out of the policy

Mr. Paul Sprout (Former DFO Regional Director General) testified that after 2005, he was not aware of any costing out for implementation.²² Had there been any, those budgets would have been presented to the Commission.

(b) No Implementation Plan

Evidence was tendered by a number of witnesses that there was an implementation plan.²³ No such implementation plan was tendered in evidence.

(c) No date for full implementation

Ms. Farlinger repeatedly testified that she could not provide a date for substantial implementation.

Q I appreciate that, but surely you can give this
16 commission some sense, two years from now, to what
17 extent will the WSP be implemented? I don't want
18 to pin you down to 50 percent, 75 percent, but do
19 you imagine within two years that your Department
20 will be in full implementation or partial
21 implementation of the WSP, and if it is partial,
22 to what extent? Fifty percent?
23 MS. FARLINGER: Well, I think as I said, it would be
24 speculation on my part.²⁴

iii. The Mandate Specific to WSP

The WSP imposes specific responsibilities on DFO regarding its implementation. This section of our submission will focus on these responsibilities, and documents the feeble achievements to date. We will outline the DFO responsibilities that are not only specific to WSP but can be considered of general statutory responsibility even in the absence of the WSP. We submit that, in this regard, the Department falls far short of what would be expected under WSP or under statute.

²² Hearing Transcript (December 9, 2010), p. 40, l. 46.

²³ Chamut, (November 29, 2010), p. 76, l. 41.

²⁴ Hearing Transcript (March 4, 2011) p. 13, l. 15.

(a) Not one conservation unit has been completed.

Evidence was tendered of the disappointment that not one conservation unit (“CU”) was completed in the six years. Dr. Kim Hyatt (Research Scientist, DFO Science) testified:

So we need a successful end-to-end to pilot to
45 show both how content standards and process
46 standards can be developed for application and
47 acceleration of implementation in other areas of
48 the province.²⁵

Even priority CU’s were not identified in this six year period.²⁶ Dr. Hyatt acknowledged that the Barkley Sound Project, which was supposed to represent a pilot CU project faces a “shortage of capacity, a shortage of both financial and personnel resources to be able to accelerate [the project].”

(b) Socio-economic Studies

The WSP anticipates robust socio-economic analysis of WSP decision-making.

“Social, economic, and biological considerations will inform decisions on salmon, their habitats, and their ecosystems consistent with the priorities assigned to Principles 1 and 2.”²⁷

Again DFO has dismally failed to complete even one socio-economic study pursuant to the WSP. As Ms. Farlinger testified:

14 Q So it may be - may be - that, in fact, no studies
15 have been completed with sockeye salmon on the
16 Fraser River in respect to the CUs?
17 MS. FARLINGER: There may have been economic studies.
18 The specific economic analyses that we are talking
19 about under the IFMP may not have been completed
20 for Fraser sockeye.
21 Q On any of the CUs?
22 MS. FARLINGER: It may not.²⁸

Dr. Riddell acknowledged that the WSP, when implemented, would include a socio-economic analysis component.:

²⁵ Hearing Transcript (December 8, 2010), p. 70, l. 44.

²⁶ Hearing Transcript (December 9, 2010), p. 41, l. 31.

²⁷ Hearing Transcript (December 8, 2010), p. 11, l. 31.

²⁸ Hearing Transcript (March 4, 2011), p. 7, l. 14.

Q Thank you. Dr. Riddell, back to you on the
43 question of stock value or, as I put it, yield
44 lost to harvest, you don't believe that work has
45 been done, correct, to the best of your knowledge?
46 DR. RIDDELL: I'm not aware that it has been done, no.
47 Q And does it not strike you that it's critical in
1 the application of the Wild Salmon Policy that
2 socioeconomic analysis is done on a constant basis
3 before decisions are made or would be made under
4 the Wild Salmon Policy?
5 DR. RIDDELL: Well, the policy --
6 Q Isn't that part of the policy?
7 DR. RIDDELL: I was just going to say the policy
8 recognizes the need to do that. Outside of the
9 policy, though, I mean we're referring to the
10 rebuilding objective as an experiment. And it is
11 unfortunate that the experiment hasn't been fully
12 assessed in that perspective.²⁹

Paul Ryall testified for an improved harvest management model would include an integrated, comprehensive socio-economic analysis component.³⁰ Mr. Grout (Regional Resources Manager, DFO) testified that no socio-economic analysis was done in 2009:

12 Q Well, I'm just taking that as an example. Did
13 you, as managers, have socio-economic analyses
14 done before decision making in respect to the 2009
15 season when it came to, obviously, the Fraser
16 sockeye?
17 MR. GROUT: If you're asking whether we had specific
18 information linking to the potential socio
19 economic impacts of a decision made in-season to
20 close the fishery in the pre-season period, we did
21 not have that information, that I'm aware of.
22 Q And it would be unsatisfactory to you that you had
23 to make the decision in the absence of such socio
24 economic analysis, isn't it -- or wasn't it?
25 MR. GROUT: Well, I think in that case, conservation
26 continues to be the top priority in the management
27 of the fishery, and that was the basis for the
28 decision making in 2009.
29 Q But don't we learn from the Wild Salmon Policy,

²⁹ Hearing Transcript (February 10, 2011), p. 37, l. 42.

³⁰ Hearing Transcript (March 16, 2011), p. 68, l. 31.

30 albeit it's not implemented yet, that the managers
31 of the resource are to weigh conservation issues
32 with socio-economic issues? Isn't that part of
33 the dictate of the Wild Salmon Policy?
34 MR. GROUT: That's correct.³¹

Dr. Carl Walters (Professor at UBC Fisheries Centre) requested the Commission to carry out a socio-economic analysis of the consequences of diminishing harvest under the WSP, as DFO had failed to carry out even a rudimentary analysis. The Commission refused.³² As a result Dr. Walters offered his own analysis:

42 I carried out a retrospective spreadsheet
43 analysis for the 1995 to 2009 period and looking
44 forward for about eight years. And using the
45 model, that retrospective analysis showed that the
46 total loss in value from harvesting, if the
47 Larkin-type models are correct, has been about
1 \$200 million not including the loss from 2010,
2 which would be another probably \$40 million. So
3 it appears to me that the economic losses were
4 very substantial.³³

Dr. Riddell acknowledged that there were no retrospective socio-economic analysis of the losses from the decisions of reduced harvests:

7 Q And you would agree with me, depending on whether
8 you apply the Ricker or Larkin model, that the
9 figures could be very, very significant in terms
10 of financial loss to the harvesters?
11 DR. RIDDELL: Well, I'm sure that you will show a
12 significant number of fish lost to the harvest
13 opportunity. My concern in doing that
14 retrospective is similar to my concern with Carl's
15 response. I don't know.³⁴

Mr. Paul Ryall testified to the importance of socio-economic work when making harvest management decisions:

³¹ Hearing Transcript (January 24, 2011), p. 42, l. 12

³² Hearing Transcript (February 10, 2011), p. 37.

³³ Hearing Transcript (February 10, 2011), p. 37, l.42, p. 38, l. 1.

³⁴ Hearing Transcript (February 10, 2011), p. 35, ll.7

36 Q All right. But from your perspective, you
37 obviously believe that it would be favourable to
38 do more socioeconomic analysis in the course of
39 applying the models for harvest management?
40 A I think that it would be an asset to undertake
41 that type of analysis to better appreciate the
42 implications.³⁵

iv. The Mandate Specific to WSP and to Overall Statutory Direction

In addition to DFO's specific responsibilities to carry out an implementation of the WSP, there are numerous other activities that are both WSP driven and statutorily driven (even in the absence of the WSP). It is our position that, in respect to these WSP/Statutory obligations, DFO falls far short of meeting even the most elementary standard of acceptable achievement.

(a) Stock Enumeration and Catch Monitoring

The foundation for an effective fishery management plan must be built upon a robust and accurate stock enumeration program. Without this data, basic management is forced to be carried out in the dark. Evidence tendered at the Commission, through the testimony of experienced and knowledgeable people, confirmed the shortcomings of DFO's data collection.

Dr. Riddell informed us that even in the absence of the upcoming budgetary cuts, salmon stock assessment was at a "marginal responsible level".³⁶ He testified:

35 DR. RIDDELL: To be perfectly honest, I'm not really
36 the person to comment on that. I know from my
37 experience that if there's been five percent off
38 total budget for the past two years that I have
39 not been in DFO any more, if you had further
40 reductions from where we were when I left, then
41 you're definitely dropping significant number of
42 programs around B.C. in stock assessment. So I'd
43 already written documents suggesting that we're
44 getting down below a critical assessment level.
45 Q So --
46 DR. RIDDELL: I call it core assessment responsibility
47 you have to meet.³⁷

³⁵ Hearing Transcript (March 16, 2011), p. 71, ll. 36

³⁶ Hearing Transcript (February 10, 2011), p. 42, l. 5.

³⁷ Hearing Transcript (February 3, 2011). p. 30, l. 35.

Dr. Timber Whitehouse (Area Chief, Fraser Stock Assessment, DFO) then gave some sobering warnings to the Commission:

MR. WHITEHOUSE: I would agree with Brian. We are
18 reaching a critical tipping point in terms of the
19 ability, particularly in the assessment world.
20 We're reaching a critical tipping point in terms
21 of being able to provide the necessary monitoring,
22 particularly outside of the Fraser. I think this
23 is an important distinction that is worth making
24 for this commission, that maintaining Fraser
25 sockeye assessment has come at a high cost and
26 that there are not many additional pieces that can
27 fall off without getting to the point where the
28 word "crisis" could come into play.³⁸

One obviously troubling fact that came to the attention of the Commission is that DFO in 2004, on the eve of the release of the WSP, modified the threshold for high-precision enumeration at the spawning grounds from 25,000 to 75,000 fish. Evidence was tendered that this diminished the quality of the data being generated and utilized by the harvest managers.³⁹ Dr. Carrie Holt, a research scientist who is playing a critical role in establishing benchmarks for the WSP implementation, had this to say at the hearing:

35 Q True. And that deficiency in material has, for
36 want of a better term, really prejudiced the
37 quality of the work you're being mandated to
38 produce for your department. Let's be frank.
39 Isn't that correct?
40 DR. HOLT: True. We have -- we've identified four
41 classes of indicators to assess status and -- for
42 many CU's. We do not have the information to
43 provide assessments on those. And I've talked
44 about that before.
45 Q And you did indeed and you're on record as saying
46 that. And then that has to lead to a series of
47 questions about why is that the situation and how
1 do we rectify it? And I think you would agree
2 with me that the reason that you are short the
3 kind of database, if I can describe it that way,
4 that you feel is really necessary, is because of
5 the lack of resources within DFO.

³⁸ Hearing Transcript (February 3, 2011), p. 31, ll. 17.

³⁹ Hearing Transcript (See Saito, February 11, 2011), p. 18, l. 2.

6 DR. HOLT: Lack of resources and for some of the
7 metrics, for example, those around distribution,
8 this hasn't historically been part of our mandate
9 to assess that and so we don't have a historical
10 time period. So even if we had resources right
11 now and started right now, it would take ten, 15
12 years to establish a baseline and -- and a time
13 trend in order to properly assess that.⁴⁰

Dr. Holt then went on to admit that an effective monitoring framework is costly but necessary.⁴¹ She testified that when facing the reality of a diminished DFO budget, the situation "may result in delay in implementation if funding is not directed to assessment -- assessment processes for implementation of Strategy 1".⁴²

(b) Habitat Management, Enforcement, Enhancement and Restoration

It is our position that, although both the WSP and the *Fisheries Act* call upon DFO to responsibly manage habitat, evidence at this Inquiry speaks to a wilful abandonment of any pretence to meet the Department's responsibility. Mr. Duncan testified that, from his perspective, habitat issues had the single most devastating impact on sockeye populations.⁴³ On this question of habitat, the WSP calls for an aggressive habitat initiative:

Action Step 5.3

"Habitat program work will shift from being largely reactive, top being planned and strategically directed in order to protect habitat and to implement management measures that meet the long term objectives specified by Strategic Plans (Strategy 4)."⁴⁴

The *Fisheries Act* also imagines DFO actively protecting habitat. *Section 35 of the Fisheries Act* prohibits the unauthorized "harmful alteration, disruption or destruction of fish habitat". "Fish habitat" is defined in section 34(1) as "spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes." Section 36 of the *Fisheries Act* addresses pollution, by prohibiting persons, except as authorized by regulation, from depositing or permitting the deposit of deleterious substances of any type "in water frequented by fish or in any place under any conditions where

⁴⁰ Hearing Transcript (December 7, 2010), p. 63, l. 2.

⁴¹ Hearing Transcript (December 7, 2010), p. 64, l. 43.

⁴² Hearing Transcript (December 7, 2010), p. 66, l. 40.

⁴³ Hearing Transcript (March 1, 2011), p. 66, l. 38.

⁴⁴ Exhibit #8 Canada's Policy For Conservation Of Wild Pacific Salmon (The Wild Salmon Policy) p. 33, Action Step 5.3.

the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.”

Despite these statutory powers and responsibilities to protect habitat, there was an acknowledgement at the Inquiry that 6 years after the release of the WSP “we’re still in the development of implementation around Strategy 2”.⁴⁵

Mr. Sprout testified:

24 But having said that, I believe the
25 area that we still struggle is the Habitat area,
26 and I believe in part that's related to capacity
27 issues. And I spoke to that briefly, and I think
28 it would be helpful if resources were provided in
29 that directed way. I don't think they'd be
30 extensive resources, but I think they'd be
31 helpful.⁴⁶

Mr. Sprout conceded that their capacity with habitat initiatives “has been very curtailed”.⁴⁷ Ms. Farlinger also acknowledged that habitat monitoring continues to be a “challenge” and pointed the finger in part on “funding” issues.⁴⁸

PPR No. 8, paragraph 6 stated:

32 Loss of fish habitat has been identified as a
33 leading factor in the decline of Canada's
34 fisheries resources, and salmon in particular.⁴⁹

Mr. Jason Hwang (Area Manager, Ecosystem Management Branch, BC Interior Area, DFO) acknowledged that “habitat is changing for the negative”.⁵⁰ This failure to meet the most minimal standard of acceptability should be of great concern to the Commission, and in turn to Federal Government and the Canadian public. Although there is a huge body of evidence to support our observations above, we intend to highlight some of the more glaring examples of DFO’s abdication of responsibility.

Mr. Rob Morley (Vice President, Canadian Fishing Company) articulates this point effectively in his testimony:

⁴⁵ Saunders, (December 8, 2010), p. 49, l. 13.

⁴⁶ Hearing Transcript (December 16, 2010), p. 55, l. 24.

⁴⁷ Hearing Transcript (December 16, 2010), p. 69, l. 11.

⁴⁸ Hearing Transcript (December 16, 2010), p. 82, l. 43.

⁴⁹ Exhibit PPR8 - DFO's Habitat Management Policies and Practices, p. 2, para 6.

⁵⁰ Hearing Transcript (April 5, 2010), p. 34, l. 28.

MR. MORLEY: Just to expand on that, I think one of the 7 issues that Mr. Commissioner raised was the sort 8 of relationship between the FRSSI model and the 9 Wild Salmon Policy and how this is being put 10 forward as a pilot implementation of the Wild 11 Salmon Policy, and I guess I would say that it is 12 -- it isn't really, in the sense that Dr. (sic) 13 Cass answered the question, because the Wild 14 Salmon Policy is supposed to include a significant 15 habitat component in looking at the influence of 16 habitat and the availability of habitat and 17 potential alterations in habitat as ways to 18 address a population that might be in the red zone 19 or in a lower status in addition to harvest 20 management. FRSSI only looks at -- your only way 21 of controlling the status of population is through 22 harvest management, and so it doesn't look at 23 other ways that you could, either through removing 24 obstacles, improving spawning ground habitat, lake 25 enrichment, whatever you could do to alter the 26 habitat to improve productivity to boost a 27 population is not one of the things that is 28 considered within the FRSSI model, and therefore 29 it's not really a full implementation of an 30 example of implementing the Wild Salmon Policy.⁵¹

Mr. Alan Cass, a DFO biologist, testified that FRSSI doesn't consider "how habitat could be changed to improve productivity".⁵² Testifying that currently the only management lever FRSSI offers managers is harvest rate manipulation, he said:

Q But it doesn't have to be the only lever if, 32 indeed, DFO and your department paid more 33 attention to habitat issues, restoration issues, 34 and saw that as another lever, a critical lever to 35 the sustenance in conservation of the resource; 36 you agree with that?
37 MR. CASS: I can't disagree with that, yes.⁵³

⁵¹ Hearing Transcript (February 7, 2011), p. 83, l. 6.

⁵² Hearing Transcript (February 7, 2011), p. 82, l. 34.

⁵³ Hearing Transcript (February 8, 2011), p. 73, l. 31.

(i) Habitat Management

Dr. Jim Irvine, DFO research scientist, summed things up succinctly when speaking of the WSP and DFO's overall statutory responsibilities:

So I'll just mention that the "Principles",
20 again "Conservation of wild salmon and their
21 habitats" is the highest priority. So that's
22 number one. As I mentioned this morning, this is
23 -- takes precedence over sustainable fishing.⁵⁴

Numerous witnesses spoke of the shortcomings of DFO's habitat initiatives. Among the more shocking testimony was the evidence that, throughout the six years under the WSP, not one Habitat Status Report has been completed.⁵⁵ Mr. Rosenberger could not answer why Habitat Status Reports had not been completed.⁵⁶

Throughout the hearing there has been significant attention paid to the threatened sockeye stock of Cultus Lake. This situation has led to harvest management decisions that have had catastrophic consequences for the commercial fishery. One would have expected DFO to carry out a fulsome habitat analysis of Cultus Lake, especially given the widely known recreational and development issues that impact on salmon habitat areas of the lake. Sadly, and without explanation, DFO never even commenced work on a habitat status report for this locale in the six year life of WSP.⁵⁷

One is hard pressed to understand how DFO could ignore a fundamental obligation under the WSP as well as under statute. The only convincing explanation relates to the funding shortage. As Ms. Rebecca Reid, Regional Director, Fisheries Management, testified:

20 Subsequent to that, the amount of funding
21 that we had set aside to do the actual work went
22 down quite considerably, so we only had a small
23 amount of money left to start the habitat status
24 indicator work, the nature of about \$50,000 a
25 year. Previous to that, we were spending over
26 \$300,000 a year.⁵⁸

⁵⁴ Hearing Transcript (November 29, 2010), p. 54, l. 19.

⁵⁵ Rosenberger, (January 24, 2011), p. 38, l. 1 and Hwang, (April 5, 2011), p. 57, l. 40.

⁵⁶ Hearing Transcript (January 24, 2011), p. 38, l. 45.

⁵⁷ Hearing Transcript (December 8, 2010), p. 47, l. 45.

⁵⁸ Hearing Transcript (April 5, 2011), p. 58, l. 20.

Ms. Reid then acknowledged her pessimism unless “...there’s a reallocation towards this activity....”.⁵⁹ Ms. Heather Stalberg, Senior SARA Biologist, DFO Oceans, Habitat and Enhancement, indicated that DFO continued to face problems relating to funding and “capacity to deliver”.⁶⁰

Witnesses also recognized the split jurisdiction between the federal and provincial governments and the need for cooperation when it came to habitat initiatives.⁶¹ Mr. Sprout spoke to the Province’s diminished capacity to carry out its habitat jurisdictional responsibilities in an exchange with Mr. Wallace:

32 Can you just expand on your perception that
33 B.C. has lost its capacity to participate?
34 MR. SPROUT: Yes. It is my perception over time that
35 the province's capacity to participate in some of
36 the initiatives related to WSP, particularly, I
37 think, at the watershed level where I believe they
38 need to take more of a lead role, which I can
39 expand on. It appears to me that their ability to
40 do that kind of work has been diminished over
41 time. That's my perception.
42 I'm also aware, in the Interior of B.C.,
43 where we have significant habitat activities. The
44 ability in the past, there was a lot of sharing of
45 workload between DFO and the province. I'm led to
46 believe that there's less capability on the
47 province's side to share that workload than there
1 has been in the past, and that led to my remarks
2 that you've just noted.⁶²

Mr. Marc Nelitz (Systems Ecologist, Environmental Management Team, ESSA Technologies) conceded that weaknesses with the habitat database makes “it difficult to implement” Strategies 2 and 3.⁶³

Where DFO has failed to implement habitat initiatives under WSP, one might expect that the Fraser River Sockeye Spawning Initiative (FRSSI) model would factor habitat issues into escapement calculations. We learned otherwise in Mr. Cass’s testimony:

Q But the model doesn't look at how habitat could be

⁵⁹ Hearing Transcript (April 5, 2011), p. 58, l. 41.

⁶⁰ Hearing Transcript (December 7, 2010), p. 33, l. 41.

⁶¹ Hearing Transcript (December 16, 2010), p. 25, l. 5.

⁶² Hearing Transcript (December 9, 2010), p. 79, l. 32

⁶³ Hearing Transcript (March 14, 2011), p. 6, l. 40.

32 changed to improve productivity; that's not a
33 factor that goes into the model in any way?

34 MR. CASS: It doesn't look at how habitat could be
35 changed.

36 Q Yeah, it makes no assumptions about how, if
37 habitat was changed one way or the other, it could
38 improve or make worse productivity of the fish; is
39 that right? What you're talking about is more the
40 retrospective; it looks at -- it's incorporated
41 into the models that are run within FRSSI, right?

42 MR. CASS: Yeah. Now, you could, given the right data,
43 you could use information from the habitat -- or
44 changes in habitat, for example, that would --
45 that could change the way the model is
46 parameterized, so it would use information from
47 the habitat, if there's been a change in the model
1 to compensate for that change. You could do that,
2 but it requires data.

3 Q And it's not being done now?

4 MR. CASS: No.⁶⁴

There is little reason to be optimistic. Mr. David Carter (Regional Team Leader of Habitat Monitoring, DFO), in response from my questioning, testified:

Q Mm-hmm. I want to now come to the second area of
10 my focus, which relates to budgetary issues, and
11 again, yesterday you had the opportunity to hear
12 exchanges about budgetary problems and how it
13 causes a consequence in the field of monitoring
14 and compliance. You would agree with me, would
15 you not, that the budgetary restrictions that DFO
16 is facing year by year is obviously to the
17 prejudice of the monitoring program within your
18 branch?

19 A I mean, budgetary restrictions that effect
20 operational funding obviously will influence how
21 much time we can spend in the field, you know, the
22 resources towards that, so it does have
23 implications on monitoring and how much monitoring
24 can be done, yes.

25 Q And you also heard testimony yesterday, and I'm

⁶⁴ Hearing Transcript (February 7, 2011), p. 82, ll. 31.

26 sure you were well aware of this, that there's no
27 reason to be optimistic, certainly for this
28 present fiscal year, correct?
29 A Yes.⁶⁵

Dr. Riddell acknowledged that there has been very poor long-term monitoring of habitat loss.⁶⁶ Even Mr. Patrice LeBlanc (Director, Habitat Policies and Practices, DFO) agreed “that there is limited monitoring at the eco-system base -- at the eco-system level for the status of fish habitat”.⁶⁷

Evidence was given at this Inquiry as to how new projects proceed in terms of habitat review and approval. Although this submission cannot review all the evidence tendered, we can say that, in a nutshell, the evidence clearly demonstrated that unless a project proponent applies for a “Referral” review, the project never receives DFO attention.⁶⁸ Mr. Carter acknowledged that many projects were off the radar screen.⁶⁹ This evidence is very troubling because it indicates that DFO has little information on a multitude of projects that may well be detrimentally affecting habitat.

As Mr. Carter testified:

19 Q All right. Now, to what extent should the public
20 be concerned of the unknowns here? In other
21 words, the initiatives that individuals or
22 companies are taking that are choosing not to seek
23 referral, that are choosing not to give
24 notification from a policy operational basis, what
25 does the Department know of what they're missing?
26 A I think, as you posed it, it is somewhat of an
27 unknown, so I would hazard to put a number to that
28 or to put an estimate to it.
29 Q I'm sorry, I didn't hear the last part.
30 A It would be a hazard for me to try and put a
31 number or an estimate to that. As you've
32 correctly phrased it, it is somewhat an unknown.
33 Q Doesn't that keep you up at night?
34 A It's definitely a concern.⁷⁰

⁶⁵ Hearing Transcript (April 6, 2011), p. 68, l. 9

⁶⁶ Hearing Transcript (November 30, 2010), p. 4, l. 21.

⁶⁷ Hearing Transcript (April 5, 2011), p. 46, l. 32.

⁶⁸ Carter, (April 6, 2011), p. 64, l. 37.

⁶⁹ Hearing Transcript (April 6, 2011), p. 67, l. 38.

⁷⁰ Hearing Transcript (April 6, 2011), p. 66, l. 19.

Mr. Hwang testified that DFO has seen a trend towards non-compliance given the lack of follow-up on applications or referrals or where parties don't even submit a referral.⁷¹

Mr. Steele admitted to the Commission that budgetary restrictions were impairing the "effectiveness of monitoring and enforcement "of Conservation and Protection ("C&P").⁷² As stated by Mr. Steele during his testimony:

30 MR. STEELE: There are concerns, yes, for anyone, I
31 think, at the management level. There's stress
32 involved in that and, yes, I think everybody
33 involved in the program that wants to ensure that
34 the program is delivered effectively has concerns
35 about budget issues in these times, yes.⁷³

Mr. Nelson added:

MR. NELSON: Yes. Yes, it's a challenging job. I have
38 had sleepless nights wondering about how we're
39 going to be able to do this. I would say anything
40 else wouldn't be right. I'm concerned about the
41 load that is placed on our field staff
42 particularly.

(ii) Habitat Restoration

There was literally no evidence to suggest that DFO has been proactive with a habitat restoration program. The closest example of habitat restoration was Cultus Lake, and even there the effort was inadequate, and mainly carried out by commercial industry. Mr. Ryall was asked:

21 The issue, sir, is it
22 not, in part, when making harvest management
23 decisions, whether or not habitat is playing a
24 role in the -- in the -- of the state of the fish
25 abundance, and the question being, then, if
26 habitat is a factor that is causing a fish under
27 the Wild Salmon Policy to be within the red zone,
28 to take remedial steps to improve that habitat as
29 part of the response to the fact that it has gone

⁷¹ Hearing Transcript (April 5, 2011), p. 53, l. 8.

⁷² Hearing Transcript (April 8, 2011), p. 60, l. 8.

⁷³ Hearing Transcript (April 8, 2011), p. 61, ll. 30.

30 into the red zone?

31 A Well, yes, I would agree, I think, with what you

32 just said.⁷⁴

In 125 days of hearing, we heard little of DFO's efforts to restore imperilled habitat.

(iii) Enforcement

The body of evidence tendered in this Inquiry demonstrates that DFO has failed to effectively enforce habitat compliance pursuant to S. 35 and S. 36 of the *Fisheries Act*. Mr. Steele testified that over the past year in Pacific region there were less than ten prosecutions under the *Act*.⁷⁵ Evidence was tendered that, in fact, there was only one conviction in 2008-09 in the Pacific Region.⁷⁶ Astonishingly, Mr. Nelson testified that for the Pacific region alone there was over \$1 million in unpaid fines.⁷⁷ The cost of collection appeared to be a barrier to collecting on those fines.⁷⁸

Clearly, DFO's capacity to effectively enforce the *Act* is dependent on adequate funding. However, the evidence before the Commission indicates that C & P has not been provided with the financial resources to adequately protect the public interest. The upcoming reductions in budget only compound this situation. Here are portions of evidence given by Mr. Nelson in response to my questioning:

Would you not agree with me that unless we
36 solve the paramount issue of funding to your
37 Department to carry out the responsibilities under
38 the **Act**, all the rest of your initiative, quite
39 frankly, is window dressing. Do you agree with
40 that?

41 MR. NELSON: I think all the measures we take help us
42 to try and achieve our goal. The fact that
43 budgets are reducing and appear to be reducing to
44 a fair bit over the next year, or after the next
45 year, we're going to only be able to do a lot
46 less.⁷⁹

⁷⁴ Hearing Transcript (March 16, 2011), p. 72, l. 21.

⁷⁵ Hearing Transcript (April 8, 2011), p. 55, l. 14.

⁷⁶ Exhibit PPR8 - DFO's Habitat Management Policies and Practices, p. 4, para 11.

⁷⁷ Hearing Transcript (April 8, 2011), p. 68, l. 5.

⁷⁸ Hearing Transcript (April 8, 2011), p. 68, l. 42.

⁷⁹ Hearing Transcript (April 8, 2011), p. 57, l. 35

Clearly the C & P personnel at DFO are demoralized with their inability to effectively enforce the Act. Mr. Nelson went on:

But as I sit here and listen to
4 the efforts that you're making in terms of what
5 I'll call new schematics, in terms of monitoring,
6 in terms of enforcement and so on, aren't we not
7 in fact left with the dilemma that unless there is
8 an infusion of capital into the Department for
9 purposes of discharging your statutory
10 responsibilities, we aren't going very far in
11 terms of improving the situation.
12 MR. NELSON: I would say that's a fair statement.⁸⁰

Mr. Steele also contributed his opinion:

18 Q Yes. Now, recognizing that the budgetary
19 restrictions are impairing the effectiveness of
20 the monitoring and enforcement of your branch, and
21 you would all agree with that principle, would you
22 not, that statement? You're shaking your head in
23 the affirmative, Mr. Steele?
24 MR. STEELE: Yes. Yes, I would.⁸¹

Then Mr. Nelson testified:

37 MR. NELSON: Yes. Yes, it's a challenging job. I have
38 had sleepless nights wondering about how we're
39 going to be able to do this. I would say anything
40 else wouldn't be right. I'm concerned about the
41 load that is placed on our field staff
42 particularly.⁸²

Even enforcement of the dragnet fishery out in our territorial waters has been seriously compromised as DFO does not have the vessel capacity to carry out any effective enforcement, and the Aurora Surveillance Program was severely cut back.⁸³ The evidence tendered on the "No Net Loss" program was also very disconcerting. Clearly DFO does not have the capacity nor the political will to truly apply such a policy. In this respect, the public interest is not being well served.

⁸⁰ Hearing Transcript (April 8, 2011), p. 58, l. 3.

⁸¹ Hearing Transcript (April 8, 2011), p. 60, l.18.

⁸² Hearing Transcript (April 8, 2011), p. 61, ll. 37.

⁸³ Hearing Transcript (May 17, 2011), p. 96, l. 47.

(c) Nursery Lake Assessment

As a component of habitat assessment, and in the interest of determining “carrying capacity” of nursery lakes, one would have expected that DFO would be carrying out such investigation. As with so much else, this assessment work is not being done. Evidence before the Commission indicated that under the old International Pacific Salmon Fisheries Commission (IPSFC), the program was “extensive” providing broad synoptic overview of a large number of lakes within the Fraser watershed. Another concerted effort was made when DFO assumed these responsibilities in 1986. Unfortunately, as with so much of DFO’s modus operandi, Mr. Whitehouse testified that this important program was scaled back:

1 And then
2 since that time, since the approximately early
3 '90s, is when we saw a tailing off in the amount
4 of directed lake assessment, and focusing on key
5 primary nurseries like the three mentioned.⁸⁴

Mr. Whitehouse then testified that work was only being done in three large lakes within the watershed. I then put to him that in light of the WSP focus on weak stocks, weren’t the small lakes now of critical importance. He said:

42 Q And you appreciate, sir, under the direction that
43 the WSP takes us, that the health of stock in some
44 of the small CUs can be critical to the harvest
45 rate of my clients out in the marine environment
46 obviously?
47 MR. WHITEHOUSE: Absolutely.⁸⁵

Mr. Whitehouse then stated in cross-examination:

Q And therefore, you would agree with me that it is
16 critical, you didn't like the word I used,
17 "tragic", but it is critical that DFO start
18 appreciating, through their funding superiors,
19 treasury board, that the work has to be done in
20 stock nursery lake assessment of small systems in
21 light of the whole CU concept?
22 MR. WHITEHOUSE: In light of the CU concept, I take no
23 argument with the importance of the work. The CU
24 concept to me does not elevate the information in
25 terms of a priority. The CU is a way -- just

⁸⁴ Hearing Transcript (February 3, 2011), p. 10, l. 1.

⁸⁵ Hearing Transcript (February 3, 2011), p. 14, l. 42.

26 simply a construct in the way of looking at things
27 here. So the need is clearly to understand
28 population dynamics.⁸⁶

(d) Selective Fishing

In light of the WSP, and their goal of effective fisheries management, one would expect that DFO would have implemented a robust “selective fishing” program. As with all other areas of DFO’s mandate, funding ran out in 2002 for a selective fishing program, and no new money has ever been provided. As Dr. Hargreaves testified:

16 So I think from about 2003 or so, shortly
17 after the end of the CFAR funding, selective
18 fishing has stalled to a large degree. There are
19 a number of elements that continue to be a part of
20 our normal practices, both for conservation and
21 management. For example, things like revival
22 tanks and brailing of sets in seine fisheries, and
23 so on.⁸⁷

He went on:

25 So where some of the practices and
26 equipment design, stuff that was developed during
27 the CFAR program has continued, but I don't think
28 the emphasis is still there, and certainly the
29 interest in terms of continuing to develop these
30 methods has waned considerably since 2002 and the
31 end of the CFAR funding.⁸⁸

And then further:

39 And it's without having a
40 directed funding source and without having someone
41 working to continue to work with First Nations and
42 recreational and commercial harvesters to progress
43 with some of these gear and methods that we had
44 started, some that could definitely use
45 completion, there wasn't someone driving that. So

⁸⁶ Hearing Transcript (February 3, 2011), p. 15, l. 15.

⁸⁷ Hearing Transcript (February 21, 2011), p. 35, l. 16.

⁸⁸ Hearing Transcript (February 21, 2011), p.35, l. 25.

46 it has relaxed and there isn't the same type of
47 push that I feel there should be in order to solve
1 some of these issues that are getting more and
2 more stringent as we move to Wild Salmon Policy,
3 **SARA** legislation, more and more a need to solve
4 some of these bycatch issues.⁸⁹

Dr. Hargreaves spoke bluntly about the lack of research in respect of post-release mortality rates: "And to me that's a critical gap in our knowledge".⁹⁰

Selective fishing initiatives now lacks 'A' based funding (Feb. 21st, p. 38, line 39) and Dr. Hargreaves provided this sobering perspective:

24 I think if
25 we don't focus again on selective fishing for both
26 conservation and harvest opportunities, in the new
27 environment, which includes MSC certification, the
28 Wild Salmon Policy, and other constraints that
29 have come on since 2002, there will be no
30 fisheries. That's where we'll end up. And I
31 think we'll be unable to recover a lot of the
32 stocks that are currently in dire circumstances
33 for conservation. So I see it as a critical
34 thing; still is.⁹¹

Dr. Hargreaves also acknowledged that funding was a serious issue.⁹²

(e) Habitat Stewardship Program

Here is another example of an extremely beneficial program that has been effectively abandoned by DFO for financial reasons. Ms. Reid acknowledged the situation:

23 Q But you would agree with me, Ms. Reid, that the
24 monies allocated for stewardship since 2003 is
25 minimal compared to the program that was in place
26 between 1997, 1998 and 2003?
27 MS. REID: I mean, I would agree that with the
28 sunseting of the Green Plan and the HCSP, the
29 amount of money available for stewardship has gone

⁸⁹ Hearing Transcript (February 21, 2011), p. 35, l. 39.

⁹⁰ Hearing Transcript (February 21, 2011), p. 36, l. 27.

⁹¹ Hearing Transcript (February 21, 2011), p. 40, l. 24.

⁹² Hearing Transcript (February 21, 2011), p. 63, l. 29.

30 down significantly, yes.⁹³

She then informed the Commission that DFO is short of money.⁹⁴

(f) The Salmon Enhancement Program

The Salmon Enhancement Program is another example of a DFO program budget that was reduced as of the mid-1990's.⁹⁵

(g) Lake Enrichment Program

Evidence before the Commission discloses that this program is almost defunct, with only one Vancouver Island lake being enriched.⁹⁶ Lack of funding is at the root cause of the abandonment of the program. The PPR also discloses:

To this end, a list of potential priority projects was developed by a HEB/Science LEP team to guide the program, but due to funding shortfalls in other areas of HEB from 1999-to 2001, LEP postponed implementing most of the major projects during this time.⁹⁷

(h) Test Fishery

The test fishery program, funded out of the Larocque money (Pacific Integrated Commercial Fisheries Initiative money) ends on April 1st, 2012. Ms. Dansereau acknowledged the following in the last days of the hearing:

29 Q Well, Ms. Dansereau, are you not willing to at
30 least say here that test fisheries are a primary
31 in-season management tool?
32 MS. DANSEREAU: I can say, certainly because of the
33 advice that I've been given, that test fisheries
34 are very important to the work that we do, yes.⁹⁸

⁹³ Hearing Transcript (April 5, 2011), p. 40, ll.33

⁹⁴ Hearing Transcript (April 5, 2011), p. 45, l. 3.

⁹⁵ Cross, (May 2, 2011), p. 69, l. 18.

⁹⁶ Exhibit PPR 11, Policy and Practice Report, Overview of Habitat Enhancement and Restoration, 1 April 2011, para. 104, p. 40.

⁹⁷ Exhibit PPR 11, Policy and Practice Report, Overview of Habitat Enhancement and Restoration, 1 April 2011, para. 104, p. 40.

⁹⁸ Hearing Transcript (September 27, 2011), p. 15, l. 29.

Despite the importance of test fisheries, DFO is not prepared to commit to carrying on this program, or indicate, if it continues, where the money will come from.⁹⁹ As Ms. Dansereau testified:

25 But we are in a
26 fiscally-tight environment and we don't know, yet,
27 what the answer to that question is, because we're
28 not through the process, yet.¹⁰⁰

This ambivalent response isn't much comfort in the context of the overwhelming evidence of Paul Ryall and others who indicates that test fishing is integral to gathering in-season information. The fact that this important program is soon to be sunsetted and may not continue in light of the fiscal situation is clear evidence that even integral fishery management strategies are at risk.

(i) Research

Throughout the life of this Inquiry, the Commission heard evidence of important research initiatives that, as a result of lack of funding were abandoned, unclear about their ability to reach completion or unlikely to ever begin. The projects under each of these categories are too numerous to detail in this submission, but a few examples can be provided in each of these categories:

a. Projects Abandoned

A fine example of a research project that was discontinued related to telemetry work. The results derived from this work were critical for stock analysis, yet renewal money was not forthcoming, and the project was abandoned. Dr. Scott Hinch (Professor, Dept of Forest Sciences; Pacific Salmon Ecology & Conservation Laboratory, UBC) testified that these studies were now largely unfunded. In response to my cross-examination he said:

38 Q All right. Now, you spoke about the telemetry
39 work and you spoke about the cutting off of funds
40 for that. Is there an explanation to give, from
41 your perspective, as to why funding was cut off in
42 terms of LGLs work with telemetry?
43 DR. HINCH: My understanding is it was a sunset program
44 and this was the way it was laid out, there'll be
45 so many years of doing this and if funding could
46 be found to continue it, it would. My

⁹⁹ Hearing Transcript (September 27, 2011), p. 15, l. 35.

¹⁰⁰ Hearing Transcript (Sept. 27, 2011), p. 15, l. 25.

47 understanding is that in the grand sense, no
1 funding has been found to continue with the way
2 things were in the past.¹⁰¹

Dr. Hinch, speaking about the challenges of climate change said:

4 We don't know what
5 the future holds in terms of how stocks are
6 absolutely going to be affected by higher
7 temperatures. The research that's going to inform
8 management on that, in my view, is coming to an
9 end because of the stopping of funding towards the
10 telemetry systems. I'm not saying this because
11 it's self-serving.¹⁰²

b. Current Research with an Uncertain Future.

A fine example of research that could be coming to an end as a result of insufficient funding is the work of Dr. Kristina Miller (Head, Molecular Genetics, DFO). Her findings regarding the genomic signatures in the sockeye stock captured a great deal of attention at this Inquiry. It was made abundantly clear that much follow-up work was necessary for her findings to be rendered useful to DFO. Dr. Miller described that the funding situation for her project was currently “insecure”.¹⁰³ She described her current situation as “troubling and stressful”.¹⁰⁴

c. Research being recommended.

Throughout this hearing, experts described critical areas of research that scientists believe must be carried out. This testimony was delivered up through viva voce evidence and by way of scientific reports filed with the Commission.

For example, there have been scientists calling for more marine research, both out at the Gulf of Alaska, and Georgia Strait, and calls for more fresh water research. There have been calls for Dr. Laura Richards (DFO Regional Director of Science for the Pacific Region) and her science group to carry out research on the relationship of salmon farm disease and the transmittal to the wild stock. More will be said in this regard under “Aquaculture” in our submission.

¹⁰¹ Hearing Transcript (March 9, 2011), p. 33, l. 38.

¹⁰² Hearing Transcript (March 8, 2011), p. 60, l. 4.

¹⁰³ Hearing Transcript (August 25, 2011), p. 53, l. 22.

¹⁰⁴ Hearing Transcript (August 25, 2011), p. 54, l. 10.

As compelling as these pleas were, if DFO's budget is not enhanced with significant new money, all of these recommendations are for naught, and the salmon stock will continue to suffer. As has been made clear throughout this hearing, there is a price to pay if valuable research initiatives are abandoned and new projects as recommended fail to see the light of day.

II. THE INEQUITABLE CONSEQUENCES OF ONLY PARTIALLY IMPLEMENTING THE WSP AND UNDER-FUNDING DFO

We have now documented how DFO has failed to substantially implement the WSP and failed to generally carry out its legislative mandate to manage the fishery in a responsible manner. As noted, whether from fiscal incapacity and/or competence, the public interest is not served. It is our position that the commercial fishery, including the fishers of Area B and Area D, have been significantly prejudice by this unacceptable situation.

DFO witnesses repeatedly informed the Commission that the stakeholders had bought into the WSP. To the extent that there was a "buy-in", one can assume that there was an assumption that all components of the WSP would be implemented. It was fair for stakeholders to have assumed that the WSP strategies were interdependent and would be collectively and comprehensively implemented.

The reality is that stock assessment and enumeration has fallen far short of meeting the needs of WSP implementation, and there has been literally no serious effort on critical habitat initiatives (including habitat restoration) nor any serious socio-economic analysis of harvest rate decisions (all called for in the WSP).

DFO's sole achievement towards WSP implementation is preliminary work towards establishing benchmarks at the CU level. Further, the only WSP tool applied in responding to weak stock issues, to date, has been the closure or reduction of catch with the commercial fishery.

This piecemeal and limited implementation of the WSP has been very prejudicial to the commercial fishery, and the consequences are unacceptable. As stated earlier in this submission, Dr. Walters estimates that this fishery has lost at least \$200 million from 1995-2009.¹⁰⁵ It is inexcusable that there has never been a full and comprehensive socio-economic analysis of the DFO decisions over the last 15 years to limit harvest, increase escapement, all in the interest of protecting weak stocks.

The WSP calls for socio-economic analysis before fishery management decision-making, and the Minister is called upon to take "social and economic costs" into consideration.¹⁰⁶ A Briefing Note to Minister - Approval of 2009-2010 IFMPs for Salmon in Northern & Southern BC

¹⁰⁵ Hearing Transcript (February 10, 2011), p. 37, l. 42.

¹⁰⁶ Exhibit #8 Canada's Policy For Conservation Of Wild Pacific Salmon (The Wild Salmon Policy), p. 29.

tendered in these proceedings discloses that in 2009 the then minister, Gail Shea, was clearly concerned with the implications of harvest management decisions when she wrote: "Need to ensure we are maximizing opportunities for commercial fisheries".¹⁰⁷

Senior DFO officials testified that the "spirit" of the WSP was being followed in their management decisions. With respect, we submit that this evidence is not credible. The evidence before us does not support the suggestion that the WSP is in any way being comprehensively implemented.

DFO has chosen to apply only one tool from their toolbox (i.e. curtailing the commercial catch) because it is convenient, and without cost to the government. It is the path of least resistance. However, the WSP was not intended to be implemented in such a simplistic and limiting way. The result of this approach is that the commercial fishery bears the brunt of total cost of this "experiment", which was never intended to be the case.

As Mr. Morley stated clearly in his testimony:

25 MR. MORLEY: -- to put in, Mr. Commissioner, and that
26 is your view of the FRSSI and approach to harvest
27 management having DFO being complacent. I
28 wouldn't call it complacent. I think that, and
29 again going back to the example that Mr. Wilson
30 presented in terms of Cultus, I think it is --
31 when DFO is presented with a problem as to whether
32 there's a conservation issue or whether there's --
33 with a particular stock or a run, it is dealing
34 with harvest management is their easiest approach
35 and something over which they have a great deal of
36 control in terms of trying to manage a population
37 and can see immediate impacts. And the costs are
38 not borne by the Government of Canada. There's no
39 out-of-pocket money from DFO's budget in order to
40 protect a stock.
41 When you're dealing with something like
42 Cultus Lake, and I sat on the Cultus Recovery Team
43 and was intimately involved in looking at all the
44 strategies, and the modelling work that was done
45 in conjunction with that is sort of expanding on
46 what Mr. Wilson said, in fact, demonstrated that
47 harvest management was not really deterministic of

¹⁰⁷ Exhibit #327 Briefing Note to Minister - Approval of 2009-2010 IFMPs for Salmon in Northern & Southern BC, with Attachments, p. 5.

1 the future of Cultus Lake sockeye that, in fact,
2 unless some of the critical issues to do with
3 freshwater survival and potentially some of the
4 issues to do with the ocean survival, unless
5 something was done to improve freshwater survival
6 or unless ocean survival picked up, it didn't
7 really matter whether you harvested Cultus at 50
8 percent, 70 percent, 30 percent, or zero, okay?
9 The future of Cultus, as an independent wild
10 population, was more than likely in serious
11 question, and that without doing something else we
12 could very well not see Cultus survive. And that,
13 in fact, trying to address those other issues does
14 cost real money. The real money, so far, for the
15 major program that's been undertaken, a predator
16 control, and even the milfoil work, has come from
17 the commercial fishing sector, okay; it has not
18 come from the Government of Canada.¹⁰⁸

Then Mr. Morley testified:

47 MR. MORLEY: With respect, Mr. Commissioner, I don't
1 think the WSP has been fully implemented to the
2 point of having reached those conclusions as to
3 what the appropriate mix is between yield and
4 biodiversity in the Fraser, and in order to come
5 to that assessment as to whether or not I'm being
6 bullish, or looking at trying to analyze the
7 relative impacts here, we need to learn a lot more
8 about those populations that you profess to be
9 concerned about.
10 We have not had an official assessment of
11 those populations. We have not had an analysis of
12 what is causing those populations to be in the
13 state they're in. We have not had an analysis as
14 to what impact exploitation rates may or may not
15 have on those populations. So I cannot, in a
16 sense, the evidence we do have, as those
17 populations continue to exist at some levels and
18 have withstood far higher exploitation rates than
19 we're looking at under any of these scenarios
20 we're developing today.

¹⁰⁸ Hearing Transcript (February 8, 2011), p. 74, l. 24.

21 So bullish, you know, when we're harvesting
22 in the 30 to 40 percent and maybe get to 50
23 percent once in a while, that's not bullish; that
24 is very, very conservative exploitation of Fraser
25 sockeye.¹⁰⁹

Mr. Morley testified further:

41 What wasn't spoken about was the
42 populations that are of a smaller size and that,
43 which are some of the ones that clearly are
44 potentially deterministic if we are to listen to
45 some people's interpretation of how the Wild
46 Salmon Policy might be applied, and could have
47 significant impact, and I think that in those
1 smaller populations undoubtedly I don't think that
2 anyone on the panel here would disagree that we
3 could have a lot more effort put into it to get a
4 lot more accurate understanding of what's actually
5 happening in those populations.¹¹⁰

It was not only witnesses that work within the commercial fishery that saw the inequities of the current DFO modus operandi. Dr. Riddell testified:

32 DR. RIDDELL: Well, I mean, I hate to come back to
33 science as a past scientist, 'cause that seems to
34 be what we always recommend, but I just don't
35 think that we can afford not to address improved
36 monitoring and continuing the science work because
37 just simply not putting the money in is
38 transferring those costs to other people, whether
39 it's First Nations in-river that are not allowed
40 to fish or whether it's the commercial fisheries
41 outside that have been substantially curtailed.
42 Other people are bearing some very substantial
43 costs by us not doing sufficient monitoring and
44 science.¹¹¹

He also said:

¹⁰⁹ Hearing Transcript (February 8, 2011), p. 50, l. 47.

¹¹⁰ Hearing Transcript (February 8, 2011), p. 67, l. 41.

¹¹¹ Hearing Transcript (February 9, 2011), p. 67, l. 32.

8 so it's a tough environment and I think we are
9 passing costs on to other people if we're not
10 going to do the fundamental work to really examine
11 things like Carl's now finding evidence out for
12 delayed density dependence.¹¹²

Clearly the commercial fishery has taken the brunt of loss as a result of DFO's limited approach to WSP Implementation and harvest management strategies in general. This outcome may have been unintended, but it has caused dire economic losses to our clients and this unfairness must be rectified.

III. NON-FISCAL ISSUES AND DFO'S MISMANAGEMENT

(i) REVISITING THE BIODIVERSITY DEBATE, OVER-ESCAPEMENT AND THE WSP

(a) The Circumstances Leading to WSP Implementation.

Unquestionably, efforts to preserve biodiversity and general sustainability of stock are important cornerstones of fishery management. It is well recognized that there were a few weak salmon stocks in B.C., some located in the Fraser watershed. Since the advent of national (e.g. SARA) and international initiatives, DFO had strategized how to effectively respond to these issues. Their response, after years of deliberating, was to announce the WSP in 2005. These submissions have already outlined how DFO has failed to properly and effectively implement the WSP. Further, we have set out the inequities to the commercial fishery in having carried out such a very limited implementation.

The principals underlying the WSP are commendable. Harvest management is to be conducted in a manner that promotes the sustainability of weak stocks but calls for a balancing of those decisions with the socio-economic impacts that might arise from such decisions. Few would argue with these lofty goals. However, the question must be asked to what extent the WSP effectively responds to the bio-diversity concerns and at what cost. The underlying problem arises when escapement figures are dictated by a few small weak stocks, which leads to the result that exploitation rate for abundant stocks in a mixed stock fishery is curtailed to meet weak stock spawning needs. That, in turn, leads to over-escapement of strong stocks, the consequences of which are described below.

¹¹² Hearing Transcript (February 9, 2011), p. 69, l. 8.

We take the position that the WSP is a failed experiment that has left an aftermath of significant problems.

(b) A Rethinking of the Strategy: “The Failed Experiment”.

Mr. Jim Woodey, a highly respected scientist and former Chief Biologist at the Pacific Salmon Commission, questioned the very foundation of the WSP. He mused about current harvest management decisions, climate change and the WSP. Mr. Woodey called the over-escapement problem “not an insignificant issue from the standpoint of future returns and harvest”.¹¹³ He also described the principals behind the WSP as a “big experiment”.

10 Since that time, because of the Late run
11 sockeye issues that I harp on, we've ended up with
12 seeing large escapements, much larger escapements
13 than some of these more recent years, so
14 escapements are exceeding the escapement level
15 during that 60-year period of fisheries management
16 where all of the stocks were behaving normally.
17 In a sense, we're conducting big experiment
18 by seeing these large escapements, and as we are
19 seeing these large escapements fail to produce,
20 we're learning more as to what the optimal
21 escapements are. But, at the same time, we're
22 seeing these failures starting to show up, because
23 it's been only in the last eight or ten years that
24 we've experienced these very large escapements.¹¹⁴

He further testified:

28 However, if you want to really
29 look forward and ask how warm is the climate going
30 to get, then the issue of triaging is not about
31 giving up; the issue is can we afford, not in a
32 fishing sense, can all of the stocks be preserved?
33 Or what is the cost of preserving all of the
34 stocks relative to making sure we have some
35 around? And I'm not talking about giving up. I'm
36 just talking about, if the climate -- if the
37 Fraser River gets to be 25 degrees Celsius, there
38 may be some stocks that just will not be able to
39 survive 25 degrees Celsius. And some will.

¹¹³ Hearing Transcript (February 9, 2011), p. 14, p. 24.

¹¹⁴ Hearing Transcript (February 10, 2011), p. 20, l. 10

40 And so at some point those very tough
41 decisions may get kind of forced on it whether we
42 like it or not.¹¹⁵

Michael Lapointe (Pacific Salmon Commission) also recommended DFO take a precautionary approach:

44 It's about the potential risks and
45 consequences not just to the folks that might want
46 to catch some of these fish but to the ecosystem
47 at large. And to think that there is no risk, no
1 consequence to the ecosystem of a very large
2 escapement, I think, is not consistent with all of
3 our training.¹¹⁶

Testimony was given by Dr. Holt that the Fraser River sockeye fishery is largely dependent on a relatively small number of large stocks.¹¹⁷

Dr. Carl Walters was referred to in these proceedings by Dr. Riddell as a leading fishery scientist, "probably one of the world leaders".¹¹⁸ Dr. Riddell also described Dr. Walters as a "world-renowned leader in fish population dynamics".¹¹⁹

Dr. Walters was asked whether he agreed with Dr. Holt's testimony when she stated that maintaining all stocks was necessary for the future:

31 DR. WALTERS: No, absolutely not. That's equivalent to
32 your stockbroker telling you that you have to keep
33 every stock you ever owned in your stock
34 portfolio.¹²⁰

Dr. Walters said further:

24 But that's the kind of trade-off we're facing
25 in the biodiversity part of your question, is
26 whether it's worth trying to protect these small
27 stocks, the small and unproductive stocks.¹²¹

¹¹⁵ Hearing Transcript (January 20, 2011), p. 76, l. 28

¹¹⁶ Hearing Transcript (January 19, 2011), p. 36, l. 44.

¹¹⁷ Hearing Transcript (December 7, 2010), p. 55, l. 32.

¹¹⁸ Hearing Transcript (December 1, 2010), p.17, l. 9.

¹¹⁹ Hearing Transcript (December 1, 2010), p. 64, l. 25.

¹²⁰ Hearing Transcript (February 10, 2011), p. 33, l. 31

¹²¹ Hearing Transcript (February 9, 2011), p. 9, l. 24.

Uncontroverted evidence was tendered by Dr. Woody, Dr. Walters, and other scientists prognosticating on how the WSP and the decisions by DFO managers were leading Canada into dangerous waters by causing over escapement of the strong stocks.

As Dr. Walters testified:

47 We're always going to be facing whether it's
1 worth saving a stock that produces 50,000 fish
2 like the Cultus, if letting it go we could catch
3 300,000 fish from the Weaver. Those are hopeless
4 decisions. It's a hopeless trade-off. It's not
5 surprising that the management system has come out
6 with a kind of a compromise, it's lose/lose for
7 everyone.¹²²

(c) Over Escapement and Its Concomitant Consequences

In the name of protecting weak stocks in a mix-stock fishery, over the last ten years commercial exploitation rates were significantly lowered (from 80% to 30%) with very unsatisfactory consequences. Those consequences are as follows:

- (i) there has been no appreciable improvement with the status of the weak stocks;
- (ii) the harvest management decisions of over-escaping strong stocks has led to serious detrimental effects; and
- (iii) the losses of commercial harvest have been devastating to the industry.

Uncontroverted evidence was provided by Drs. Woodey, Walters and Riddell that over-escapements have a detrimental effect on productivity. They testified that there is an overall negative relationship between productivity and spawner abundance. There is an optimal escapement rate (“MSY”). The spawning grounds and the nursery lakes have limited capacity to carry a high escapement, which leads to low productivity and to the production of small fry, which in turn leads to higher mortality.

¹²² Hearing Transcript (February 9, 2011), p. 57, l. 47.

Dr. Walters prognosticated some ominous forecasts if the current harvest management regime carries on. He and Dr. Riddell had written in 2005 that over-escapement would not lead to a total collapse of the stock.¹²³ He is now having second thoughts about those opinions written six years ago:

30 We argued based on the evidence we had then
31 that there was little risk of that in the Fraser.
32 But subsequent to writing that report, two things
33 have come to light. One of them is additional
34 data collected during a period -- recruitments
35 from high spawning stocks during the late 1990s
36 and early 2000s. Another was Gilhausen
37 reconstruction of abundances in the late 1880s.
38 The newer data do provide stronger evidence
39 of over-escapement in the terms of the big
40 decrease in recruitment, most spectacularly for
41 the Chilko stock. Taken together with the
42 Gilhausen reconstruction, I think we have to now
43 admit substantially higher risk of severe stock
44 declines and severe cyclic population behaviours
45 under reduced harvest rates.¹²⁴

Dr. Walters testified further:

41 But am I right in what I say, that
42 no historic evidence of catastrophic recruitment
43 failure from high escapement levels?
44 DR. WALTERS: No. As we indicated yesterday, there are
45 data more recent than we had that do hint at that
46 possibility for a couple of the stocks, Quesnel,
47 most spectacularly, and Chilko.
1 Q You say "hint at", but we haven't seen it, have
2 we?
3 MR. WALTERS: No, we see radical drop in recruitment.
4 Q Okay.
5 MR. WALTERS: Following a period of high spawning
6 stock.
7 Q But have you seen it to the level of it being
8 catastrophic to the stock?

¹²³ Exhibit #417 *Walters et al* - Does Over-Escapement Cause Salmon Stock Collapse, (PFRCC) Apr 2004, p.8.

¹²⁴ Hearing Transcript (February 9, 2011), p. 25, l. 30.

9 DR. WALTERS: Well, I'd say in the Quesnel case, a drop
10 from in the millions down to in the hundred
11 thousand or so is pretty catastrophic, yes.
12 Q The 2004 paper, as I read it, says that there's no
13 evidence that over-escapement will cause a stock
14 collapse. Are you changing your view on that?
15 DR. WALTERS: Yes. As we explained yesterday, for two
16 reasons: newer information and the failure in
17 that 2008 paper to have looked at both the
18 Gilhousen work, showing strong cycles back
19 historically, and also the newer data.¹²⁵

Michael Lapointe agreed with Dr. Walters:

25 But in terms of the substance of have there
26 been potential negative consequences from high
27 escapements in specific stocks in specific years,
28 I would agree with that assertion by Carl. And I,
29 in fact, provided under oath, in my testimony in
30 October, an example of that with the Quesnel, and
31 so if I didn't say that I agreed with that, I
32 would be contradicting my previous testimony.¹²⁶

Mr. Lapointe cautioned the Inquiry to take heed of Dr. Walters opinions:

7 I've know Carl for -- since 1982. He's
8 brilliant. He's usually right.¹²⁷

Sadly, DFO appears to blindly pursue this strategy of over-escapement at the expense of serious losses to healthy stocks that make up the majority of the Fraser sockeye runs.¹²⁸ Mr. Rosenberger appears to inform the Commission that DFO rejects the concern surrounding over-escapement. Their modus operandi over the last number of years confirms their rejection of the concerns heard at this inquiry.

This decision by DFO is contrary to the “Precautionary Principle”. Mr. Nelitz acknowledged that over-escapement was not factored into the WSP benchmarks:

27 Q Okay. Maybe you can help me, then. In the models

¹²⁵ Hearing Transcript (February 10, 2011), p. 14, l. 41.

¹²⁶ Hearing Transcript (January 18, 2011), p. 100, l. 25.

¹²⁷ Hearing Transcript (January 18, 2011), p. 100, l. 7.

¹²⁸ Hearing Transcript (January 21, 2011), p. 26, l. 33.

28 today of green, red and yellow, can you tell me
29 where overescapement is plugged into that? We've
30 heard evidence of overescapement. There's been
31 considerable discussion about it. There's been
32 papers written on it. Can you tell me how that's
33 incorporated, taking account of the effect of
34 overescapement, how it's accounted in -- how it's
35 accounted for in the current green, red, yellow
36 models that we've assigned to each CU?
37 MR. NELITZ: I'd say based on our understanding, it's
38 not -- it doesn't seem like it's an explicit
39 consideration that there's, like, an
40 overescapement factor.¹²⁹

Dr. Woodey goes so far as to describe DFO's management decisions as "disastrous":

2 And it's the summer-run fish
3 that became the experiment, under my terminology,
4 that is, the escapement levels of particularly
5 Quesnel Sockeye in 2001 and 2002 were very large
6 and, thus, the "experiment" has shown that the
7 over-escapement, that I term over-escapement as,
8 has resulted in disastrous results for the Quesnel
9 Sockeye run.¹³⁰

It is very difficult to understand how DFO can continue to ignore the strongly held opinions of these highly respected scientists (Lapointe, Woodey and Walters). More to the point, it is difficult to understand why DFO fails to appreciate the dangers to the sustainability of the stock if they continue to allow over-escapement in the interest of a few small and possibly endangered stocks. Dr. Woodey called the DFO management decisions as "wrong":

26 DR. WOODEY: Mr. Commissioner, from my perspective, the
27 attempt to so-called rebuild stocks, off-cycle
28 stocks, and so on, that carries, then, the
29 precautionary line idea, is probably not well
30 founded, at least, if not -- not wrong.¹³¹

¹²⁹ Hearing Transcript (March 14, 2011), p. 64, l. 27.

¹³⁰ Hearing Transcript (February 10, 2011), p. 46, l. 2.

¹³¹ Hearing Transcript (February 10, 2011), p. 68, l. 26.

The consequences of DFO's incompetence are born by the commercial fishers. Dr. Walters testified:

45 I think one problem we have in our management
46 systems is that we did not pay enough attention to
47 whether the risk premiums that our fishermen must
1 bear are reasonable and fair and necessary. They
2 have been very large, in recent years.¹³²

(ii) ALLOCATION ISSUES

The intent of the allocation policy is to maintain a consistent share of the salmon resource, or economic pie, through a coast-wide sharing formula that annually moves access/allocation of various salmon species between the three commercial user-groups. That formula worked well when all fleets could fish the entire coast, however, when area licensing was introduced in the mid-1990s, the ability of the various fleets to access specific shares/species of salmon was negated because of licensing requirements.

Although the current implementation of this policy could sometimes be viewed as unproductive, it often has the effect of imposing real economic penalties on fishermen by requiring non-compensatory reallocations between fleets. For example, South-coast seines having to transfer sockeye to south-coast gillnets to compensate the lack of fish for the north-coast gillnets.

Compounding the problems of allocation within the commercial sector is the failure of the policy to define shares between the commercial and recreational sectors. While the policy states that the commercial sector should be allocated 95% of the harvestable surplus of sockeye, pinks and chums, the recreational fishery enjoys "priority access" to chinook and coho which, along with the expansion of their sockeye fishery, threatens to erode that commercial share without compensation.

It is hoped that the recently announced "Allocation Modernization Plan" will be able to address the allocation inequities within the commercial sector; however, DFO has also indicated that this plan will not be dealing with defined shares between the commercial and recreational sectors. Without defined shares there can be no certainty of long-term access for the commercial fisheries.

¹³² Hearing Transcript (February 10, 2011), p. 67, l. 45.

(iii) THE CONSULTATIVE PROCESS

Our clients do believe that processes that inform and educate stakeholders are a worthy objective. Unfortunately, the current schematic for consultation and decision-making is completely ineffectual. Further, the reality is that, at the day, it is for the Department to make the hard decisions.

We submit that there are a number of problems with the current consultative process.

(a) The issues have become far too complex to afford stakeholders the opportunity to make “informed” decisions.

As Dr. Walters testified:

2 As I see the way
3 that decision process works, people that are
4 involved in it are thrown a huge variety of
5 statistics and models and calculations and so on
6 like that, a bewildering variety that I, even, as
7 an analyst who develops those kind of models,
8 would be at a loss to advise about policy in those
9 settings. It's just too complex.¹³³

Even Mr. Ryall acknowledged that the issues have become more complex over time.¹³⁴

Most of the stakeholders have little or no technical backup. Speaking about our clients' situation, Mr. Morley testified:

5 MR. MORLEY: I think the commercial sector,
6 unfortunately, suffers from not having the
7 technical back-up and capacity in terms of having
8 scientific staff that are available and work for
9 them on a regular basis to understand all the ins
10 and-outs of the model by any means whatsoever.¹³⁵

¹³³ Hearing Transcript (February 10, 2011), p. 61, l. 2.

¹³⁴ Hearing Transcript (March 16, 2011), p. 35, l. 1.

¹³⁵ Hearing Transcript (February 7, 2011), p. 78, l. 5.

(b) Meeting overload leads to “fatigue”

A number of witnesses warned of how the current schedule of meetings is very fatiguing for the participants. Mr. Wayne Saito (Contractor, BC Ministry of Environment) said it well:

12 MR. SAITO: Well, I am concerned on behalf of or
13 representing, perhaps, the individuals that are
14 participating in these processes. It isn't just
15 one process. I don't know if there is evidence to
16 suggest how many processes there are, but one
17 merely kind of needs to look at and examine the
18 number of meetings, pre-season planning meetings
19 that the participants in the Integrated Harvest
20 Planning Committee process are expected to
21 participate in, and to maintain that level of
22 familiarity and competency, so to speak, or dare I
23 say with respect to, you know, the large number of
24 issues, complex issues that need to be maintained,
25 that the Department of Fisheries is looking for
26 advice on, so they can develop a sound, robust
27 fishing plan. Yeah, it's really hard work.
28 I mean, I've been in this business, or had
29 been in this business for over 35 years, and I,
30 too, have a very difficult time kind of keeping up
31 on all the complex issues. So, yeah, meeting
32 fatigue and participation fatigue is a very real
33 issue to make sure that everybody, all the
34 processes are well serviced by well-funded and
35 properly equipped advice. Yes, that's a tall
36 order.¹³⁶

(c) The Financial Cost

The schematic of consultative bodies include the Harvest Committees, the Commercial Salmon Advisory Board, the Integrated Harvest Planning Committee, and numerous other bodies. There is a significant cost maintaining this number of bodies. Mr. Saito testified:

There are
2 so many characteristics of the current system
3 right now that are -- that speak for significant

¹³⁶ Hearing Transcript (February 11, 2011) p. 8, l. 12.

4 change, consultation fatigue, the increasing cost,
5 the human as well as the financial cost of
6 maintaining the system, whether it be within the
7 stakeholder community or the Department of
8 Fisheries or some of my former colleagues within
9 the Province of British Columbia, the government
10 side of it. The costs are getting larger and
11 larger and larger and more complex.¹³⁷

Evidence was lead that unlike the Sport Fishing Advisory Board, the commercial sector is expected to cover their own expenses. This has made it challenging for our clients to attract people willing to sacrifice their time pro bono to sit all these consultative committees. Even Dr. Gerry Kristianson (Chair, Sport Fishery Advisory Board and PSC Commissioner; Recreational Fisher) testified as to the unfairness of that situation.¹³⁸

(d) The Challenge to Reach Consensus

Where there is an expectation that these bodies will be making decisions by consensus, the processes are doomed to failure. Management by committee does not work when dealing with complex issues and with stakeholders with opposing interests.

Testimony was given that where the Integrated Harvest Management Committee did reach rare consensus, the government failed to act upon it (for example, covering expenses of members of the Commercial Harvest Committee, and waiving licence fees during seasons with fishery closures). Mr. Grout acknowledged that situation.¹³⁹ Dr. Kristianson testified:

18 DR. KRISTIANSON: Yes, exactly. And indeed I think
19 that one of the more charming notions that has
20 been exercised by people in the Department of
21 Fisheries and Oceans in recent years is the notion
22 that somehow consensus is going to make things
23 easier. That, you know, if only all of those
24 interests would reach consensus, then it would be
25 easier for the politicians to make a decision.
26 And frankly, I think that the evidence suggests
27 that's simply not true, and that this one of

¹³⁷ Hearing Transcript (February 1, 2011), p. 82, l. 1.

¹³⁸ Hearing Transcript (February 1, 2011), p. 83, l. 15.

¹³⁹ Hearing Transcript (February 24, 2011), p.39.

28 licence stuff is an example.¹⁴⁰

(iv) TERMINAL FISHERY

The Commission has heard evidence of DFO's apparent desire to move more towards a terminal fishery. It is our submission that this policy is wrong-headed and represents one more example of DFO pursuing a policy ill thought out. In this section of our submission we will describe how the policy makes little economic sense, how DFO has blindly pursued this direction without a socio-economic analysis of the policy's import, and how it is all to the prejudice of First Nations and non-First Nations communities dependent on a healthy coastal commercial fishery.

To pursue this program DFO bought licences through an allocation transfer program or more recently through the Pacific Integrated Commercial Fisheries Initiative (PICFI). Mr. Sprout explained:

35 This is a very
36 significant investment by the Federal Government;
37 approximately 175 million dollars, designed
38 principally to transfer licenses from non natives
39 to First Nations, and in doing so offset and
40 actually improve conservation by reducing
41 fisheries in areas where the stocks are more
42 mixed, where there's more problems with the
43 fisheries, in terms of conservation, transferring
44 those opportunities to First Nations, typically
45 more inward, and in some cases in the Fraser
46 River, for example.¹⁴¹

The terminal commercial fishery has been a pilot project or demonstration fishery to date, and over the past year accounted for 12-13% of the commercial TAC.¹⁴²

This program of transferring commercial fisheries up-river is driven by the belief that terminal fisheries minimize the dangers inherent in a mix-stock commercial fishery in the marine waters.

¹⁴⁰ Hearing Transcript (February 11, 2011), p. 10, l. 18.

¹⁴¹ Hearing Transcript (December 16, 2010), p. 11, l. 35.

¹⁴² Grout, (January 25, 2011), p. 37, l. 40.

It may sound logical but for a number of critical issues that appear to be conveniently ignored by DFO.

Firstly, in light of the high incidence of in-migration mortality (as currently experienced), for one fish potentially caught in marine waters you require 1 ½ to 2 fish to escape in-river to harvest that one fish.

22.....and in order to
23 transfer fish to develop a new commercial fishery
24 upstream, you may have to transfer one and a half
25 or two fish out of a fishery at the mouth of the
26 river, in the lower river, or in Johnstone
27 Straits, in order to get one fish to that terminal
28 fishery up the river. So you've got a loss of
29 yield as well, just in the point of the number of
30 fish that's available to that fishery.¹⁴³

Additionally, the commission heard other concerns expressed concerning a move to commercialize this fishery.

Mr. Morley cautioned on the dangers of such a fishery. He stated:

13 So inherently
14 the fishing activity is less economically
15 sustainable from the point of view of relying on a
16 single highly variable population.¹⁴⁴

But the most significant issue surrounds the depreciated value of fish caught terminally. Mr. Morley made the point that the quality of the flesh caught terminally provides fewer options in terms of products that can be produced and "...certainly would not generate the potential income that can be generated from higher quality fish in the ocean fisheries."¹⁴⁵

Mr. Morley testified:

17 MR. MORLEY: No, that's not correct. We're interested
18 in pursuing any businesses that can generate
19 profit for our company. I was simply pointing out
20 that in fact, and I think it's based partly on a
21 study that was conducted by a Stuart Nelson, which
22 is in Ringtail actually, it's CAN163001. And it

¹⁴³ Morley, (March 1, 2011), p. 43, l. 22

¹⁴⁴ Hearing Transcript (March 1, 2011, p. 43, l. 13).

¹⁴⁵ Hearing Transcript (March 1, 2011), p. 43, l. 36).

23 is done for the Agri-Food Trade Services for
24 Agriculture Canada entitled "Fraser River Sockeye
25 Benchmark Study, A Business Perspective on Fraser
26 Sockeye" done by Stuart Nelson and Nelson Bros.
27 Fisheries.

28 In that document - I don't know if Mr. Lunn
29 can pull it up - but in page 23 and 24 it really
30 compares the potential value of fish in various
31 parts of the Fraser River watershed, going from
32 the ocean all the way up to terminal areas. And
33 Mr. Nelson, having done extensive work in this
34 area, really suggested that if you look at the
35 kinds of returns that are potential to fishers,
36 fishermen, that the potential, even though it's
37 untested, and he said it was questionable exactly
38 what volumes you could market from the upriver
39 area, he suggested that it would generate after
40 processing and distribution expenses somewhere in
41 the range of 23 to 36 cents per pound to the
42 fishers. And in the ocean fisheries that the in
43 fact potential was to generate somewhere in the
44 range of \$1.60 to \$2.30 a pound.

45 So the context of my remarks, looking at this
46 kind of information, is that the potential income
47 for fisheries within the river is probably one
1 fifth of the potential income to fishermen in the
2 ocean areas for any given pound of fish. And I
3 also indicated that again with the fish that die
4 on the way up the river, you probably have to send
5 one of the half-pounds of fish up to be able
6 commercially harvest one pound up the river. So
7 there's already another 50 percent discount on
8 what you can generate up there.¹⁴⁶

His evidence is supported by the Report he refers to authored by M. Nelson written in 2006. In the Fraser River Sockeye Salmon Benchmark Study Mr. Nelson wrote:

"It is evident that as sockeye proceed through their migration, they possess fewer of the attributes that are prized by the marketplace. Reduced market attractiveness implies a lower commercial value. It follows that a harvest-mix as

¹⁴⁶ Hearing Transcript (March 15, 2011), p. 25, l. 17.

heavily weighted to ocean-caught Fraser sockeye as possible offers the best prospects for “giving customers what they want.”¹⁴⁷

It is astonishing that DFO has pursued this direction in the absence of serious socio-economic analysis of both the economic viability of an inland fishery and a review of the impacts back at the coast. In an exchange with us, Ms. Farlinger testified:

38 Q Thank you. And terminal fisheries with
39 socioeconomic analysis, there was an exchange
40 between this panel and some of my colleagues, I
41 think late last week. You have never done a
42 socioeconomic analysis of the direction you're
43 taking towards a greater terminal fishery; is that
44 not correct? Was that not the evidence?
45 MS. FARLINGER: As far as I know, there is not a
46 socioeconomic analysis of the terminal fisheries
47 currently -- demonstration fisheries on the Fraser
1 River.

2 Q And would you not agree that that one would have
3 expected as a condition precedent before your
4 department made such a critical initiative to move
5 to terminal fishery?

6 MS. FARLINGER: And indeed, that's why those fisheries
7 are demonstration fisheries, because that analysis
8 is not yet done.¹⁴⁸

Mr. Lapointe had an observation to make concerning this move towards terminal fisheries. He testified about those communities economically and culturally dependent on the marine fishery:

But what about all of those folks
43 that fish below the confluence of the Lillooet?
44 Are we going to tell those folks that they have no
45 future because the only way to accomplish this
46 objective is to only fish above?¹⁴⁹

Mr. Rosenberger stated the obvious:

27 Q Do you accept that if you reduce or delay seaward

¹⁴⁷ Exhibit #1989, Nelson FRSS Benchmark Study - A Business Perspective on Fraser Sockeye, rev Jul 2006 [Prepared for AAFC CAFI Program, p. 19.

¹⁴⁸ Hearing Transcript (September 27, 2011), p. 33, l. 38.

¹⁴⁹ Hearing Transcript (January 20, 2011), p. 50, l. 42.

28 fisheries till the peak has passed Mission, you
29 are affecting all fishers from every sector who
30 have traditionally or historically fished on the
31 seaward side of Mission.

32 MR. ROSENBERGER: If you delay the fisheries, you would
33 be, yes.

34 Q And that that shift in fisheries management
35 affects those groups disproportionately, compared
36 to those groups that fish on the inland side of
37 Mission.

38 MR. ROSENBERGER: It can, which is why the Department
39 is trying to buy out some of those licences and
40 move that harvesting capacity to where the shift
41 potentially could occur.¹⁵⁰

To the extent that DFO's move towards terminal fisheries is motivated as a First Nation initiative, evidence was tendered that there is a significant First Nation involvement in the marine fishery. Local coastal First Nation communities are dependent on the marine coastal fishery. These communities have a huge investment in the economic viability of the coastal fishery.

Mr. Bill Duncan (Native Brotherhood of British Columbia) testified concerning this significant First Nation involvement, and introduced a 2003 study "Native Participation in British Columbia Commercial Fisheries"¹⁵¹. Table 2.1 discloses a 32.2% native involvement over all gear types. Table 2.3 discloses that from 1999 to 2002 the average First Nation catch was 41.7 percent of total.

Mr. Morley testified about his company's reliance on First Nation employees:

27 Q Mr. Morley, I'd like to ask you if you'd agree
28 that coastal First Nations people have a -- are an
29 important part of the commercial fishery?

30 MR. MORLEY: Absolutely. I'd agree with that. They
31 are, as indicated by the numbers, they've always
32 been a large part of the commercial fishery and
33 continue to do so. In terms of I know in our
34 operations, they're a very critical part of our
35 workforce in Prince Rupert, in our cannery that

¹⁵⁰ Hearing Transcript (January 24, 2011), p. 81, l. 27).

¹⁵¹ Exhibit #503 Michelle James, Native Participation in BC Commercial Fisheries, Nov 2003.

36 employs up to 800 -- or two plants that employ up
37 to 800 people, there's probably 60 percent are
38 First Nations people and on the fishing vessels,
39 the seine boats that Mr. Harvey referred to of a
40 fleet that we own or joint venture partnership
41 with, about 80 percent of the crew members or 80
42 percent of the skippers and crew members are First
43 Nations people, yes.¹⁵²

Mr. Morley then provided an affidavit that sets out that other than Mr. Morley's company, Canadian Fishing, the other West Coast companies, members of the Seafood Producers Association, claim 371 First Nation harvesters out of a total of 823, and 450 First Nation individuals in processing from total of 1217.¹⁵³

Clearly any diminishment of the coastal fishery to satisfy an expanded terminal fishery will significantly impact on both coastal non-native and First Nation participants in the commercial fishery.

(v) THE FSC FISHERY AND THE ABUSES

For the most part, we leave this subject matter for other participants to cover in their submissions. However certain evidence stood out as requiring the following brief comments. My clients fully recognize the appropriateness of a legitimate FSC fishery. However, the evidence at hearing did not instil confidence that this fishery is being properly managed and enforced. For example, there was startling evidence from Mr. Scott Coultish, Regional Director of C & P Intelligence, that 97% of FSC caught fish in the lower Fraser was being sold.¹⁵⁴ As Mr. Coultish testified:

11 MR. COULTISH: The issue of illegal sale of fish,
12 salmon, from the Fraser River, out of all sectors,
13 but primarily out of the aboriginal food, social
14 and ceremonial fishery, has been an issue, a long
15 standing issue for the organization and was
16 highlighted in the Williams Report. The issue
17 concerned or to consider is that sale is primary
18 root cause of illegal fishing, primarily. It's an
19 economic-based issue, and most of the fish clearly
20 illegally harvested is intended to be sold.¹⁵⁵

¹⁵² Hearing Transcript (March 1, 2011) p. 64, ll. 27.

¹⁵³ Exhibit #1978, (Exhibit B). Affidavit of Rob Morley #1.

¹⁵⁴ Hearing Transcript (May 17, 2011), p. 32, l. 44.

¹⁵⁵ Hearing Transcript (May 17, 2011), p. 23, l. 11.

Further, the Commission heard evidence that organized crime has infiltrated this fishery.¹⁵⁶

It is our position that DFO must ensure that there is an effective enforcement of the FSC fishery. The evidence tendered at this Inquiry inescapably leads one to conclude that this fishery is not subject to any serious enforcement efforts.

23 MR. NELSON: On the Fraser River, in my view, and the
24 view of staff that work on the Fraser River that
25 have talked to me, we have done a reasonable job
26 of the illegal fishing activity. That isn't to
27 say we have addressed the illegal sales issue.
28 That's a different story. But as far as the
29 amount of illegal fishing activity and the amount
30 of unknown how many fish are being taken
31 illegally, we can say with a high degree of
32 certainty that it may be in the hundreds of
33 thousands, but it's certainly not in the millions.¹⁵⁷

(vi) AQUACULTURE

(a) DFO's conflicting mandates relating to aquaculture

Since the ruling of Justice Hinkson in *Morton v. British Columbia (Minister of Agriculture and Lands)*¹⁵⁸, responsibility for the management of finfish aquaculture has fallen to the federal government. In their new role as regulators of aquaculture, the federal government is responsible for aquaculture site decision-making, operational management of the industry, research and monitoring activities. While carrying out this role, the Department has an overarching responsibility to make decisions in the interest of the conservation and protection of fish.¹⁵⁹ These legislative responsibilities are reflected in various federal statutes and in the mandate of the national Aquaculture Management Directorate:

DFO's vision for aquaculture development in Canada is to benefit Canadians through the culture of aquatic organisms while upholding the ecological and socio-economic values associated with Canada's oceans and inland waters. This vision is consistent with the departmental mission of working toward safe, health, productive waters and aquatic ecosystems for the benefit of present and

¹⁵⁶ Hearing Transcript (May 17, 2011), p. 92, l. 18.

¹⁵⁷ Hearing Transcript (May 17, 2011), p. 10., l. 23

¹⁵⁸ *Morton v. British Columbia (Minister of Agriculture and Lands)*, 2009 BCSC 136 at paras. 183-185 [*Morton*]

¹⁵⁹ *Fisheries Act* R.S.C. 1985, c. F-14. ss. 20, 21, 22, 32, 35, 43(b).

future generations by maintaining the highest possible standards of service to Canadians, conservation and sustainable resource use, scientific excellence, and marine safety and environmental protection.¹⁶⁰

Despite no statutory obligation to do so, DFO has assumed an active role in the business development and promotion of the aquaculture industry. During this Inquiry, Commission counsel and others questioned whether DFO should be involved in promotion of the aquaculture industry while also acting as the industry's regulator. Of even greater concern is the question of whether DFO's involvement in the expansion and development of the aquaculture industry directly conflicts with their legislative responsibility to protect aquatic ecosystems.

The Aquaculture Innovation and Market Access Program (the "AIMAP" Program) is one example of the degree to which DFO is utilizing its fiscal and other resources to subsidize and support aquaculture. The AIMAP Program, with a budget of 4.7 million/year for five years beginning in 2010, is a new granting program that is "designed to improve the competitiveness of the Canadian aquaculture industry by encouraging an aquaculture sector that continuously develops and adopts innovative technologies and management techniques to enhance its global competitiveness and environmental performance."¹⁶¹ To date, AIMAP has contributed \$9.4 million to 66 aquaculture projects, with a total project value of nearly \$31.4 million, which only represents part of the picture in terms of DFO's fiscal and other support for the industry.

Perspectives varied on whether DFO's involvement in the promotion of the aquaculture industry undermines their conservation mandate. Mr. Trevor Swerdfager (National Director General, Conservation and Protection Directorate, DFO) testified that DFO can manage any conflict through "discussion" and "negotiation".¹⁶² Whereas, Ms. Catherine Stewart (Salmon Farming Campaign Manager, Living Oceans Society) testified that DFO is not capable of simultaneously promoting the aquaculture industry while also effectively protecting ecosystems.

29 ... DFO has a primary constitutional
30 mandate to protect ocean and ecosystem health and
31 wild stocks. They have a political mandate in
32 recent years to be a promoter and an advocate for
33 the aquaculture industry, the development and
34 expansion of such. If you look at the patterns of
35 behaviour from marketing, meeting with retailers,
36 promoting aquaculture at seafood expositions such
37 as the Boston Seafood Show, at their promotional

¹⁶⁰ PPR 20 Policy and Practice Report: Aquaculture Regulation in British Columbia (July 28, 2011); Draft Document p. 46 – 47; Overview of Existing Aquaculture Mandate and New Aquaculture Program Initiative (June 6, 2008) at p. 3.

¹⁶¹ Exhibit 1729, Aquaculture Innovation and Market Access Program (AIMAP), March 1, 2010. (CAN 284022).

¹⁶² Hearing Transcript (August 30, 2011), p. 9, line 45; p. 10, line 6

38 materials, at the granting programs such as AIMAP,
39 they're very much acting on behalf of the
40 promotion and development of the aquaculture
41 industry.
42 I think that the Department needs to fulfill
43 its primary obligation to Canadians and ensure
44 that there are healthy wild salmon stocks and
45 healthy fully functioning marine ecosystems for
46 our future. Those two are in conflict with one
47 another. Given the weight of scientific evidence,
1 given the track record of the industry globally,
2 and the continual evolution and exposure of the
3 problems that are associated with open-net cages,
4 DFO cannot be a rigorous and effective enforcing
5 mechanism at the same time as they're being an
6 advocate and a promoter of the industry. 163

When asked how this conflict could be remedied, Ms. Stewart recommended that these two mandates be departmentally separate so that DFO can “effectively perform their primary mandate” to protect salmon stocks and habitat.¹⁶⁴ Dr. Ian Fleming, Professor, Ocean Sciences Centre, Memorial University of Newfoundland, gave evidence that, in light of the potential for perceived or actual conflict, the government of Norway has divided these responsibilities into different government departments:

36 I can speak about generally my experience in
37 Norway where the organization is different. The
38 primary role of the regulation of aquaculture
39 falls under the Ministry of Fisheries and Coastal
40 Affairs. But in that, the Directorate of
41 Fisheries is the main leading body, but then the
42 (foreign word), that's the Ministry of Health and
43 Food Safety, has a role. The Directorate of
44 Nature Management has a role which is concerned
45 with environment issues, and then also the
46 Directorate for Coastal Administration, so all
47 four have a role.¹⁶⁵

We take the position that DFO cannot be dually responsible for fish and fish habitat conservation while also being active in aquaculture industry promotion. The Department must

¹⁶³ Hearing Transcript (September 7, 2011), p. 7, lines 28 – 47; p. 8, lines 1 – 29.

¹⁶⁴ Hearing Transcript (September 7, 2011), p. 8, line 29.

¹⁶⁵ Hearing Transcript (August 30, 2011), p. 12

focus its fiscal resources on conservation-related activities and its performance in this regard, while being insulated from the business interests of the aquaculture industry.

(b) Adequate Funding for Research

A central focus of these submissions has been the acute fiscal crisis within DFO and the resulting challenges that the Department faces in discharging its statutory responsibilities. In terms of its science and research activities, fiscal restraints and reductions have adversely affected DFO's ability to create and carry out a research agenda that provides government with the monitoring, data management and scientific advice needed to fulfil its responsibilities. For example, in 2010/2011 the Science Branch Pacific Region experienced budgetary reductions of about 4%, which DFO describes as having the impact of "lower quality advice" to the Department.¹⁶⁶

A particularly noteworthy example is the evidence of Dr. Kyle Garver, (Research Scientist, DFO) and Dr. Kristina Miller. Dr. Miller gave expert evidence regarding her discovery of a genomic signature which, when found in sockeye salmon, results in a significantly increased likelihood of death in the marine environment and prior to spawning (the "MRS"). Her evidence indicates that some of the most consistently up-regulated genes in the MRS are linked to viral activity associated with leukaemia, which means that salmon with this genomic profile may be dying of a viral infection.

Even at this early stage, Dr. Miller's research has made a significant contribution to the body of knowledge regarding the factors that may have contributed to the general decline in Fraser sockeye productivity. As she and Dr. Garver stated in their evidence, there are a series of next steps that must be undertaken in order to isolate the cause of the MRS. For example, Dr. Garver and Dr. Miller testified about the importance of conducting further research using microarrays of tissue samples from a large sample of sockeye salmon to attempt to isolate a virus and also conducting sampling from fish farms to screen for MRS.¹⁶⁷ DFO's ability to pursue these important areas of research are highly depending on the proper funding for its scientists and their labs. As Dr. Miller indicated, this is not necessarily the case given the current funding climate:

10 We have no funding to work on sockeye
11 salmon at the present time, but part of the reason
12 for that within the Department is that the major
13 funding that I have used from the Department for
14 working on genomics is the Genomics Research and
15 Development Initiative funding, and that has not
16 been approved by Treasury Board yet. So we all
17 have proposals into that, but there's no money in

¹⁶⁶ Exhibit 1917 Science Pacific Region Budget Impacts 2010/2011, PDF page 5.

¹⁶⁷ Hearing Transcript (August 24, 2011), p. 6-7, ll. 18.

18 the bank essentially at this time.
19 So, at the time, right now, I actually have
20 no departmental money or outside money to work on
21 sockeye salmon from the Fraser River.¹⁶⁸

It is incumbent upon the federal government to ensure that DFO science is sufficiently funded so that the Department's senior officials and managers are able to make evidence-based decisions that further its conservation mandate. It is well understood that there are many gaps in the body of knowledge regarding the causes for the decline in the Fraser River sockeye salmon stocks. The fiscal crisis experienced by the Department and by its scientists will result in lower quality advice and non-evidence based decision-making, which we submit will have devastating ecological consequences.

(c) Setting Research Priorities

Even if sufficient funding is provided for DFO research, the Department will still have to make important decisions regarding research priorities. Given the clear statutory obligation of DFO to ensure the long-term sustainability of Canada's aquatic ecosystems, it is paramount that the Department prioritize research that is strategically directed towards assisting DFO's management decisions in such a way that assists in their sustainability mandate.

Instead of this type of strategic and long-term thinking, the evidence suggests that research decisions within DFO are subject to political and other influences that may not be in the interest of the Department's conservation mandate. As Dr. Michael Kent, Professor, Microbiology & Biomedical Sciences, Oregon State University, stated in his testimony:

38 ... I can say with working
39 for 12 years -- 11 years with DFO, and there's a
40 frustration with scientists in that they'll be
41 working on a project and it does not come to
42 completion or significant progress because of
43 pressure from political reasons and others that
44 scientists - when I was there, maybe things have
45 changed now - are directed to with their limited
46 resources redirect their resources to the, if I
47 should say, the disease of the day that has become
1 popularized in the media. And so that that's my
2 -- what I, as you see here, this is I conducted a
3 one-day interview in December with various
4 scientists at DFO and this is my interpretation
5 from the interview with Dr. Jones on why the work
6 was not continued with Parvicapsula. They had

¹⁶⁸ Hearing Transcript (August 25, 2011), p. 39, ll.10 – 21.

7 some excellent work going on with that and then I
8 saw that it didn't continue on from the early --
9 from about ten years ago.¹⁶⁹

Politically motivated decisions may distract from the conservation mandate of DFO. The Department should develop clear research goals and performance measures for its research program that are in line with its conservation mandate, and ensure transparency surrounding its research program and their results.

(d) Siting of Fish Farms

During the hearings on the issue of aquaculture, the Commissioner heard from a number of expert scientists who agreed that finfish aquaculture may be a source of infectious and endemic diseases that infect sockeye salmon. On this question of the link between aquaculture and disease, Mr. David Mamorek (ESSA Technologies Ltd.) conducted a cumulative impact assessment and stated the following:

... a plausible concern is that known pathogens found on salmon farms (which include “high risk” diseases identified by Kent (2011)) could be directly transferred, or indirectly transferred through an intermediate vector / host which then infects, causes death, and/or impairs physiological function of Fraser River sockeye salmon”¹⁷⁰

Four technical reports were produced for the Commission in order to provide a comprehensive review and evaluation the effects of salmon farms on the health of Fraser River sockeye. Dr. Larry Dill (Department of Biological Sciences, Simon Fraser University) and Dr. Don Noakes (Department of Mathematics and Statistics, Thompson Rivers University) came to different conclusions in their review of the evidence. In light of these conflicting conclusions, the Commission is faced with an important question of whose analysis to accept.

It is our submission that the Commissioner should accept Dr. Dill’s analysis, which is methodologically sound and provides well reasoned conclusions. Dr. Dill’s report acknowledges the limitations in the short time series data of specific aquaculture variables that are currently available. He states that the quantity and quality of that individual farm data, which starts in 2003, has a low statistical power to detect any correlations or to determine what individual factors are responsible for the Fraser River sockeye decline. However, following upon the analysis of Dr. Brandon Connors, Dr. Dill refers to a second dataset containing data on the production of farmed salmon since salmon farming began in British Columbia in the early

¹⁶⁹ Hearing Transcript (August 22, 2011), p. 35, ll. 33 – 47; p. 36, ll. 1 – 9.

¹⁷⁰ Exhibit 1986, Marmorek et al, Cohen Commission Technical Report 6 - FRSS: Data Synthesis and Cumulative Impacts, Apr 2011.

1980s. On the basis of this data, Dr. Dill agreed with the conclusions of Dr. Connors that “the relationship between farm production and Fraser sockeye survival in the long-term data set suggests that the farms are having some sort of negative impact on wild salmon productivity, most likely in concert with other factors in the marine environment.”¹⁷¹

Dr. Noakes provided a contrary view in his report, which stated that, “Overall, the evidence suggests that salmon farms pose no significant threat to Fraser River sockeye salmon and that salmon farming has not contributed to the recent decline in Fraser River sockeye salmon productivity.”¹⁷² With respect, this statement by Dr. Noakes discredits the opinions and conclusions in his technical report. His conclusions are unfounded in light of the acknowledged limitations on the short time series data he was working with. Further, we submit that his statement is inconsistent with basic principles of the scientific method.

Elsewhere in his report, Dr. Noakes concedes “the data records are quite short (particularly the fish health data).”¹⁷³ It is inappropriate for a scientist to state conclusions with such certainty when the evidentiary basis is lacking. Further, it is a well accepted principle of the scientific method that, as Mr. Marmorek states, “as long as events occur in a way that is consistent with a theory, you can't reject it. But if an event then came along that was contradictory to that theory, you would then be able to reject it....it basically comes to the idea that you can only disprove hypotheses, and those which have failed to be disproven over a long period of time gradually become accepted.”¹⁷⁴ Dr. Noakes testified that the available evidence proves that fish farms pose no significant threat to Fraser sockeye, which is simply not the case. On this basis, we submit that the Commissioner should accept Dr. Dill’s analysis and create recommendations that address the evidence indicating that aquaculture is having a negative impact on the health of BC’s wild salmon stocks.

Canada has made a clear commitment to the precautionary principle, found in the Rio Declaration and incorporated into legislation relevant to Fraser River sockeye salmon, such as the *Oceans Act*, the *Canadian Environmental Assessment Act* and the *Canadian Environmental Protection Act*.¹⁷⁵ We submit that, in order to conform with this approach, Canada must recognize that open net pen aquaculture, particularly along salmon migratory routes, are a

¹⁷¹ Exhibit #1540 Cohen Commission Technical Report 5D - Dill, Impacts of Salmon Farms on FRSS: Results of the Dill Investigation, June 2011, p. 34.

¹⁷² Exhibit #1536 Cohen Commission Technical Report 5C - Noakes, Impacts of Salmon Farms on FRSS: Results of the Noakes Investigation, June 2011, p. i.

¹⁷³ Exhibit #1536 Cohen Commission Technical Report 5C - Noakes, Impacts of Salmon Farms on FRSS: Results of the Noakes Investigation, June 2011, p. 96.

¹⁷⁴ Hearing Transcript (September 19, 2011), p. 74, line 4.

¹⁷⁵ Preamble and s.30 of the *Oceans Act*, S.C. 1996, c. 31; s.4 of the *Canadian Environmental Assessment Act*, S.C. 1992, c. 37; and preamble, s.2(1)(a), 6(1.1) and 76.1 of the *Canadian Environmental Protection Act*, 1999, S.C. 1999, c. 33.

potentially irreversible threat to the health of wild salmon stocks and lack of full scientific certainty should not be used to justify lack of action on behalf of DFO to mitigate this potential harm.

(e) Fish Farms Audits

Prior to the *Morton* decision, the provincial government carried out the Fish Health Audit and Surveillance Program, consisting of three components: monitoring activities and reviewing health-related records from salmon farms, collecting samples from fresh silvers to test for bacteria, viruses and parasites and determine farm level disease, and compare audit results with the self-reported data provided by industry. This type of audit is beneficial if it provides independent sampling and oversight of fish farms in the province.¹⁷⁶

In 2010, when the federal government assumed responsibility for finfish aquaculture, the audits of fish farms in British Columbia were contracted to a non-profit society called the Centre for Aquatic Health Science (“CAHS”) based in Campbell River.¹⁷⁷ Dr. Sonja Saksida is the Executive Director of CAHS and she testified that CAHS receives a large component of its funding from the aquaculture industry:

27 ...direction for -- for projects is based on our
28 Board of Directors, and obviously we have to make
29 money. Unfortunately, all our efforts to try to
30 get wild fish research, fish health research, has
31 been for naught. I've approached organizations
32 like the David Suzuki Foundation, like the Moore
33 Foundation, to try to see if they're interested in
34 wild fish research, and been shut down. So, yes,
35 our current funding, a large component is from the
36 aquaculture, but really honestly it's not for the
37 lack of trying to diversify.¹⁷⁸

Further, when asked about the composition of the Board of Director of CAHS, Dr. Saksida testified that there are a number of representatives from the aquaculture industry that sit on the CAHS Board of Directors.¹⁷⁹

If DFO intends to continue to contract third party and non-governmental agencies to conduct inspections or facility audits, it is essential that those agencies are arms length from industry. A

¹⁷⁶ Exhibit 1662 British Columbia’s Fish Audit and Surveillance Program

¹⁷⁷ Centre for Aquatic Health Science online: <http://www.cahs-bc.ca/fish-health-audits.php> and <http://www.cahs-bc.ca/sea-lice-audits.php>.

¹⁷⁸ Hearing Transcript (September 6, 2011), p. 78, lines 25 – 37.

¹⁷⁹ Hearing Transcript (September 6, 2011), p. 78, line 28.

high degree of independence is necessary for the scientific rigour and for the public confidence in this process.

(f) Data Sharing between Industry, Government and the Public

Prior to the *Morton* decision, the Province operated a Salmon Health Management Program that required mandatory monitoring and reporting of disease events to the Province's Aquaculture Inspection Program. All commercial aquaculture facilities reported monthly site-specific information to the BC Salmon Farmers Association industry database, including all mortalities, causes of mortality and Fish Health Events.¹⁸⁰ The BCSFA then submitted quarterly reports of this data to MAL. MAL posted the quarterly reports of fish health data as well as its annual Fish Health Reports on the Animal Health Branch's website.

During the Commission hearings, two issues arose regarding the lack of access to data from fish farms. First, the fact that historically the BCSFA and Province have been unwilling to share the raw data provided to them by the farms.¹⁸¹ Second, there has been a lack of cooperation by industry in the government's research efforts.

(i) Disclosure of Fish Health Data

The first issue is the lack of public access to fish health data from fish farms. DFO, now responsible for the industry's reporting program, has indicated a commitment to enhanced public reporting in order to foster public confidence in aquaculture management.¹⁸² DFO has stated that it is committed to "making information readily available to members of the public, enable the public to have access to substantial amounts of information concerning the environmental, scientific and operational status of BC aquaculture operations, and create a higher level of public confidence in the aquaculture industry."¹⁸³

It is our position that the data that is disclosed by the farms to DFO on an ongoing basis, specifically the fish level data that, for example, is found in the series of databases provided to Dr. Korman, now marked as Exhibits 1549 to 1549-167 in these proceedings, should be made available to the public in a timely fashion. It is in the public interest for DFO to share this information with the general public, including the scientific community, so there is broad access to the specific symptom and disease information contained in these records.

¹⁸⁰ Pacific Aquaculture Regulation, s. 1.

¹⁸¹ Hearing Transcript, (August 26, 2011), pp. 1- 8.

¹⁸² Exhibit 1590, British Columbia Aquaculture Regulatory Regime - Public Reporting of Regulatory Information Under the British Columbia Aquaculture Regulatory Regime.

¹⁸³ Exhibit 1590, British Columbia Aquaculture Regulatory Regime - Public Reporting of Regulatory Information Under the British Columbia Aquaculture Regulatory Regime, p. 1 – 2.

(ii) Cooperation with DFO Research

The second issue is the need for cooperation by industry in DFO's research efforts. In Dr. Miller's evidence, she described barriers she faced when attempting to access samples from fish farms to further her MRS research:

19 Q ... I heard that you tried to get the
20 fish farmers to let you test and their
21 veterinarians refused.
22 DR. MILLER: I was approached by Mary Ellen Walling
23 right after the Science paper came out, probably
24 in early February, and she wanted to know more
25 about what we knew and what we had. And she said
26 that there was some interest in the industry to go
27 ahead and test for the signature we have. I was
28 told later by one of the vets, by one of the
29 companies, that they were advised against doing
30 the testing by someone from DFO.

....

44 ...I approached the Fish Health group in
45 Laura Richard's office again in -- at the end of
46 July, about moving forward and testing. And
47 really my question was who would ask the industry
1 to provide samples for testing: would that come
2 from me, would that come from management, would
3 that come from Fish Health, and how do we move
4 forward with this, and we had a discussion in
5 Laura Richard's office about that. And it was
6 clear from that discussion that it was a decision
7 to be made by the Fish Health group. And at the
8 time they were still uncomfortable with asking the
9 industry to test, and that's what those emails,
10 subsequent emails were about.
11 But very shortly thereafter we had a second
12 meeting with Andy Thomson and said that he would
13 take this to the leaders of the different salmon
14 industry for Atlantic salmon, and he did the
15 following week discuss it with the CEOs of the
16 various companies. And they talked about it for
17 some period of time and they finally agreed that
18 they would submit to testing.

19 So that's about as far as it has gone.¹⁸⁴

It is essential that DFO has the power as a regulator to require industry cooperation when research involving fish farm data or sampling is required. This requirement should be built into the terms of the aquaculture licensing program.

IV. CAUSES OF THE RECENT DECLINE OF FRASER SOCKEYE

The Federal Government's intention in establishing this Inquiry was, in part, to have the Commission make findings of fact regarding the causes of the dramatic decline in Fraser sockeye stocks over the past two decades, and to put forth recommendations regarding remedial steps that should be taken.

After 125 days of hearing, one thing became abundantly clear. There is a consensus that the scientific questions surrounding salmon stocks are complex and don't lend themselves to simplistic and categorical pronouncements. The evidence pointed to the multitude of factors at play causing the current situation. We were warned about this in Dr. Lawrence Dill's Technical Report 5D:

It is naïve to believe that the present report, and the Cohen Commission in general, will identify *the* cause of the sockeye salmon decline, and in particular the return failure of 2009. Nature is complex and factors do not act in isolation on the population dynamics of any species.¹⁸⁵

This point was well illustrated when two respected scientists Dr. James Woodey and Mr. Ken Wilson were asked whether they had any explanation for why the sockeye returned in such numbers in 2010, both answered "Not really".¹⁸⁶ In terms of the challenge of answering the difficult questions posed to the Commission, certain things can be said with confidence.

(a) The Declines are Not Related to Over-fishing.

The declines date back to the mid-1990's, and throughout this period the commercial harvest exploitation rate has been significantly curtailed by DFO. The overwhelming weight of evidence heard at the Inquiry was that fishing levels were not a factor causing the dramatic declines witnessed over the last 18 years or so. Mr. Carl English, a scientist with LGL Research testified:

¹⁸⁴ Hearing Transcript (August 25, 2011), p. 11, ll. 18 – 47; p. 12, ll. 1 – 47; p. 13, ll. 13-19.

¹⁸⁵ Exhibit #1540 Cohen Commission Technical Report 5D - Dill, Impacts of Salmon Farms on FRSS: Results of the Dill Investigation, June 2011, p. 3.

¹⁸⁶ Hearing Transcript (February 9, 2011), p. 81, ll 3 & 35.

23 Q And you would agree with me further that
24 curtailing fisheries doesn't speak to resolving
25 the problem in that over, for example, the last 15
26 years or so, there's been a diminished harvest,
27 year by year by year, and in spite of that, what
28 we're seeing here is a continuing problem of
29 decline in recruits per spawner. Would you agree
30 with that?

31 A That's correct, yes.

32 Q Pardon me?

33 A There has been a decline in recruits per spawner
34 and the reductions in the fishery have been
35 occurring at the same time. So the fishery hasn't
36 been the one that has changed the recruits per
37 spawner; it's more the marine environment that's
38 having a factor.¹⁸⁷

A SFU "Think Tank of Scientists" gathered December 9th, 2009 and stated the following:

"We believe that expectations in 2009 for Fraser sockeye were overly optimistic because forecasts did not adequately account for this decreased productivity. This trend is not due to fishing."¹⁸⁸

By way of example, the commercial catch in 2005 was 129,000 Fraser sockeye, which represented 2% of the run, and yet there was no commercial fishery four years later (i.e. 2009).¹⁸⁹ In referring to a Report on a P.S.C.'s Workshop held in respect of the Decline of Fraser River Salmon August, 2010¹⁹⁰, Mr. Grout stated:

24 Is your question, are you asking me what
25 role commercial fishing potentially had in the
26 decline of Fraser River sockeye?
27 Q Well, that's probably a good place to start.
28 That's the first question.
29 A Well, in terms of that question, Science staff in
30 the Department are better placed to explore that
31 hypothesis, amongst others, that might explain
32 the cause of the decline. Certainly in a recent
33 workshop that was chaired by Dr. Randall Peterman

¹⁸⁷ Hearing Transcript (April 15, 2011), p. 56, l. 23.

¹⁸⁸ Exhibit 11, Adapting To Change - Managing Fraser Sockeye - CAN032127, p. 1.

¹⁸⁹ Grout, (February 24, 2011), p. 87, l. 39 and p. 88 l. 1.

¹⁹⁰ Exh. #203 Peterman, Marmorek et al, Synthesis of Evidence from a Workshop on the Decline of FRS, Nanaimo, Jun 15-17, 2010

34 and David Marmorek, they did not -- the
35 participants at that workshop did not feel that
36 fishing was a likely cause of the poor return that
37 we saw in 2009, at least in the findings in that
38 workshop.¹⁹¹

(b) The Causes are Multi-Factorial

What can be said with confidence is that science points us to a multitude of causes for the decline, obviously some with more prominence than others. We believe that an analysis of the evidence does not allow one to conclude that there is one and only one cause for the decline. Climate change, disease, marine and fresh water habitat conditions all play into the complex web of issues determining the health of the stock. Each of these conditions is intertwined. It is beyond the scope of this submission to carry out an analysis of the weighty scientific evidence placed before the Commission, however the issue of climate change stands out and deserves special attention by the Commission.

Dr. Hinch testified that he was hard pressed to find a greater threat to the stock than climate change.¹⁹² Dr. Welch left us with some ominous thoughts. He was referred to a passage of the author Michael Healey, from Exhibit #1320 Healey, Cumulative Impacts of Climate Change, May 26 2011 p. 730, and testified:

32 MR. PROWSE: Now at page 730, Mr. Lunn.
33 Q After going through another several steps in the
34 analysis, he says:
35
36 If global warming can be stopped before a
37 critical stage is reached, the Fraser River
38 system will eventually settle into a new
39 regime of production. However, on the basis
40 of present evidence, it seems doubtful that
41 the new regime would involve substantial
42 commercial production of salmon. Indeed, it
43 seems more likely that many Fraser River
44 sockeye populations will be extirpated, and
45 those that remain will be in a tenuous
46 position.
47 So, Dr. Welch, can you shed hopeful perspectives
2 on that statement?

¹⁹¹ Hearing Transcript (February 28, 2011), p. 61, l. 24.

¹⁹² Hearing Transcript (March 9, 2011), p. 20, l. 8.

3 DR. WELCH: Unfortunately no. I agree with him
4 completely.¹⁹³

It is well known that salmon are most sensitive to water temperature. We also learned that 13 of the last 20 years have been the warmest on record.¹⁹⁴

We also learn that early migration of late run salmon abruptly started in 1996 and continued to 2009, resulting in very high rates of mortality.¹⁹⁵ Dr. Woodey has described this phenomenon as the “elephant in the room”. The complex questions of why this is happening can only be resolved with extensive research, which requires that adequate funding be provided to support research activities.

As climate change was not an abrupt event starting in 1996, one has to look at other important factors such as disease and the emergence of fish farms in BC in the 1980s. (See Aquaculture section of this submission).

(c) The Coincidence of the Implementation of the Rebuilding Strategy and the Decline of Sockeye.

The Rebuilding Strategy of 1987, which was predicated on increasing escapement and foregoing catch happens to coincide with the pronounced decline of the productivity of the stock. Earlier in our submission we quoted Dr. Woodey referring to this approach as a “great experiment”. This management decision may very well have contributed to the catastrophic consequences that lead to the calling of this Inquiry. Mr. Al Cass testified:

7 So that was sort
8 of where I would say, you know, in 2000, 2002,
9 with the decline and the loss of yield that was
10 not achieved, that's where rethinking about the
11 '87 plan started to take hold.
12 Q And do you know why the plan didn't work, why
13 there started to be a decline in the later years?
14 A Why there was a decline in --
15 Q Why the stocks --
16 A -- productivity?
17 Q -- didn't rebuild in the way that was anticipated
18 under the rebuilding strategy?
19 A Yeah. We didn't understand why it was declining.
20 I mean, there's a number of hypotheses that you

¹⁹³ Hearing Transcript (July 7, 2011), p. 68, l. 32.

¹⁹⁴ Hearing Transcript (March 9, 2011), p. 1, l. 33.

¹⁹⁵ Hinch, (March 9, 2011), l. 44.

21 will hear or have heard throughout these
22 proceedings but, you know, the current thinking, I
23 guess, was that productivity was declining because
24 of changing environmental conditions, primarily in
25 the ocean and it was a natural occurrence and part
26 of fluctuating changes in productivity over time.
27 But in this particular case in the 1990s, it
28 turned out to be a rather persistent decline.¹⁹⁶

This must necessarily lead one to an analysis of the ‘over-escapement ‘ issue (covered in another section of this submission). Suffice to say here that DFO’s policies of the last 15 years, at times blindly pursued, have been at great expense to the commercial fishery and the public interest.

V. RECOMMENDATIONS

It is in the public interest that the Commissioner’s final report be favourably received in Ottawa and that there be some realistic expectation that the Commission’s recommendations are implemented. To expect such a result, it is our submission that the Commissioner’s recommendations should be confined to broad principles, possibly with an appendix that outlines more specific initiatives that would be consistent with the primary and overarching recommendations found in the body of the Commissioner’s report. To embed too many detailed suggestions throughout the Commissioner’s report will detract from the report’s major recommendations.

A. Major Issues of the Inquiry

(a) The Funding Crisis

As has been evident throughout the proceedings, our cross-examinations concentrated, in part, on the funding crisis at DFO. It is certainly open to the participants and the Commissioner to advance hundreds of recommendations, but the reality is that exercise is meaningless unless the Federal Government recognizes the critical need for additional funding to afford DFO the budgetary capacity to carry out its constitutional responsibilities.

Our submission provides an in-depth review of the evidence regarding DFO’s financial crisis. Suffice to say that previous and current budget cuts can only exacerbate an already desperate situation.

¹⁹⁶ Hearing Transcript (February 7, 2011), p. 6, l. 7.

Many DFO programs, from the implementation of the Wild Salmon Policy to the inability of DFO to enforce fishery regulations, support the conclusion that the best intentions of the Commission in advancing recommendations to the Government will be a futile exercise unless Government appreciates that the current government under-funding has been prejudicial to the effectiveness of DFO to manage the resource, and in turn to protecting the sustainability of the stock.

To relegate the funding issue to anything less than a primary focus of the recommendations is, in our opinion, ignoring the foundation necessary for an effectively functioning DFO. Continued funding shortages will incapacitate DFO's ability to implement the recommendations the Commission might advance. When reviewing the recommendations suggested during the hearing, many of them are costly. The Commission's work has been in vain if there isn't the political will in Ottawa to recognize the importance of DFO being empowered with the financial capacity to effectively discharge its current responsibilities, and furthermore, be in a position to implement this Commission's recommendations.

In our opinion it is incumbent upon the Commission to indicate to Government that significant increases in funding are pivotal if this Commission's recommendations are to, at the very minimum, arrest the very problems that motivated government to initiate this Inquiry in the first place.

Recommendation: That DFO's Pacific Region annual funding be significantly increased to cover the multitude of initiatives being recommended by the Commission. This funding should be directed in part on stock assessment, enforcement, habitat restoration/enhancement and socio-economic research around the implementation of the WSP.

(b) The Wild Salmon Policy

It is evident that to whatever extent the stakeholders and the public bought into the WSP, the implementation of the program has sadly fallen short of anyone's expectations. The Policy, from the time of its inception, never had a realistic chance of being effectively implemented. The fact that the Policy was burdened with a condition that the implementation "must be accomplished within DFO's existing resource capability" crippled the program. The fact that there have been budget reductions imposed on DFO since 2005 only makes the situation more disconcerting.

It is our position that ineffectual and limited implementation of the WSP has been highly prejudicial to our clients. The WSP is dependent on proper and effective monitoring and enumeration of stocks, protection of valuable habitat, and proper socio-economic analysis within decision-making.

The half-baked implementation of WSP, without even a limited recognition of the habitat responsibilities imposed in the policy, and devoid of a commitment to pursue socio-economic studies required under the policy, has all been very detrimental to our clients' interest. The implementation of the WSP was supposedly to equip DFO with many tools to protect weak stocks, but to date DFO's only response has been commercial fishing closures. This is unacceptable. Either DFO is provided with the tools for a balanced and effective implementation, or the program should be abandoned. At no time during the Inquiry was the finger pointed at over-fishing being the cause of the weak stock problems. Therefore, it is unreasonable to place most of the burden on the fleet by way of closures. The WSP was meant to offer a comprehensive and multi-faceted strategy in response to a finding that a stock was endangered. That has not been the history to date.

Recommendation:

- i. That DFO receive the necessary funds to carry out a full implementation of WSP, including being provided with the financial resources to:
 - a. protect and restore habitat where necessary
 - b. carry out socio-economic analysis of decisions under the Policy.

Anything short of a fulsome and balanced implementation is unfair to the commercial fleet.

- ii. That unless Treasury Board allocates this critical funding, the WSP should be abandoned, as it was meant as a balanced multi-faceted strategy.

(c) Harvest Management

There are three areas of harvest management that are of particular interest to my clients. The first area is that DFO be provided with the proper funding to ensure accurate enumeration of stock so that decisions can be made with reliability.

Secondly, over-escapement has clearly not been in the lexicon of DFO managers. As set out in this submission, the uncontroverted evidence of Dr. Carl Walters, acknowledged as a world authority, must be given importance in future decision making of the department. Until now, DFO managers, when making escapement decisions, have not considered the dangers of over escapement under the "precautionary approach". This practice has the potential of turning a productive system into a stock of concern, as was seen in for Quesnel, BC.

Thirdly, the current "consultative" processes are unworkable. The system is burdened in bureaucracy and doesn't at the end of the day truly provide effective input by the stakeholders. It is my clients' position that management by committee doesn't work. The diverse interests that have membership in some of the consultative bodies bring inherently opposing viewpoints

to the table. Our clients see the concept of co-management as a recipe for disaster. This issue is expanded upon further in our submission.

Recommendation:

- i. That adequate funding be provided to DFO to ensure accurate enumeration and assessment of stock for purposes of harvest management.
- ii. That the dangers of over-escapement be considered by harvest managers in the context of the precautionary approach analysis when deciding on escapement levels.
- iii. That the consultative process, as currently functioning, be more limiting in their importance, with the clear recognition that DFO is mandated to manage and should at the end of the day be the sole manager of the resource.
- iv. That all participant groups in the consultative process be treated equally with financial assistance.

(d) Commercial Fishing

The current structure of coast-wide allocation based on an area fishery is unmanageable.

Recommendation:

- i. My clients support all initiatives aimed at restructuring the allocation policy.
- ii. The commercial/recreational/non-FSC fishery should move to a fixed defined share by 2015.

(e) Aquaculture

Our submission focuses on several key issues regarding DFO's responsibility to regulate the aquaculture industry and its overarching duty to make decisions in the interest of the conservation and protection of fish. We make the following five recommendations, which we submit are critical if Canada wishes to ensure the future health and productivity of Fraser sockeye.

Recommendations:

- i. Remove the aquaculture industry promotion, liaison and public affairs functions from DFO to ensure that the Department's mandate to protect wild salmon is not compromised

- ii. Canada should properly fund DFO's scientific activities in order to ensure that the Department is able to make effective, evidence-based decisions regarding fishery management and conservation. Further, the Department should develop clear research goals and performance measures for its research program that are in line with its conservation mandate, and ensure transparency surrounding its research program and their results.
- iii. Fish farms should be removed from the Fraser sockeye migration routes and all future siting decisions should recognize that pathogens from fish farms present a risk to wild salmon populations. Fish farms should be located in areas where contact with wild salmon populations is avoided.
- iv. Fish farm monitoring must be carried out by organizations (governmental or non-governmental) that are completely independent from the aquaculture industry in order to ensure a thorough and unprejudiced audit process.
- v. The detailed, fish-level data that is disclosed by fish farms to DFO as part of the mandatory reporting program and the data gathered through the audit program should be made available to the public in a timely fashion. Further, Canada must establish regulations permitted DFO scientists to conduct research on fish farms.

VI. CONCLUSION

This submission highlights Canada's failure to effectively protect and manage Fraser River sockeye, a public resource of great cultural, ecological and economic importance to Canadians. One hundred and twenty-five days of hearings discloses that issues of the stock decline are scientifically complex and don't lend themselves to simple analysis. However, what is evident from the testimony is that DFO has been ineffective in their management, leading to dire consequences.

The paramount issue relates to DFO's financial incapacity to truly discharge an acceptable standard of management that would ensure the sustainability of this valuable resource. The public interest can only be protected with an infusion of significant funding to a department that has been under-funded for years. Without increasing DFO's Pacific Region's budget, sockeye and other salmon stocks of the west coast face the possible fate of the east coast experience, and the work of this Inquiry could be rendered ineffectual.

Respectfully Submitted.

Don Rosenbloom

Don Rosenbloom, Legal Counsel

Katrina Pacey

Katrina Pacey, Legal Counsel