

WRITTEN RE-EXAMINATION QUESTIONS FOR PAUL RYALL

1. On June 3, 2011, you were asked by counsel for the Conservation Coalition about Exhibit 951. He read you the last bullet under the “short-term” heading, which read “Develop an approach for inclusion of socio-economic information (NHQ paper)”. He asked you “Is there such a paper? Have we already seen that?” and you answered “No, I don’t believe we have.” (p.43, ll.16-28)

- a. For clarity, are you aware if such a paper currently exists and are you aware who, if anybody, is tasked with preparing this paper?

I’m not aware of any specific document that has been developed for inclusion of socio-economic analysis into the WSP. However, there is a draft policy document that was developed April 2008 for socio-economic analysis that was be used to inform fisheries management decisions (copy attached). The document outlines three levels of analysis: 1) economic profile; 2) an assessment of economic viability; and 3) an analysis of alternative management scenarios.

2. You testified about the surveillance audit conducted by the Marine Stewardship Council (MSC) in mid-May for BC sockeye. With respect to Exhibit 969, you testified that you put this document together with input from a lot of Pacific Region staff for MSC’s surveillance audit in May.

- a. To which stakeholders have you provided Exhibit 969? Did you provide it to the Marine Conservation Caucus before the May surveillance audit?

The document was completed on May 30, 2011 and has not been provided to stakeholders. An earlier version was provided to the Seafood Alliance of BC and Mr. Steve Devitt of Moody International who is conducting the Marine Stewardship Certification process for BC salmon.

- b. Prior to the MSC surveillance audit in May, did you seek any input on your status report at Exhibit 969 from the Cultus Sockeye Conservation Team?

I sought input from department staff that are the accountable leads for delivering on MSC conditions. I don’t know if they also sought input from members of the Cultus Sockeye Conservation Team.

- c. Why was the Cultus Sockeye Conservation Team not consulted on the DFO Action Plan (Exhibit 159)?

See answer to 2b.

- d. The entry on page 6 of Exhibit 969, regarding MSC Condition 28, refers to the May 2010 version of Dr. Bradford's paper, which was the pre-peer review version. Have you provided MSC with the final published version of Dr. Bradford's paper?

I provided the MSC the draft research document of Dr. Bradford's paper.

- e. Have you ever informed Dr. Mike Bradford that his CSAP paper on the Status of Cultus Lake Sockeye Salmon (Exhibit 804) would be provided by DFO to MSC as support for MSC certification?

No I did not inform Dr. Mike Bradford that his CSAP on the Status of Cultus Lake Sockeye Salmon would be provided by DFO as support for MSC certification.

- f. Prior to the MSC surveillance audit in May, did you seek any input on Exhibit 969 from the WSP Implementation Team?

I sought the input from many DFO staff regarding Exhibit 969 including Science, Stock Assessment, Fisheries Management and Ecosystems Management. During the time Exhibit 969 was developed I was a member of the WSP Implementation Team. My focus for getting input into the development of Exhibit 969 was to speak to the person that would be accountable for delivering on the response to a particular condition.

- g. Why was the WSP Implementation Team not consulted on the DFO Action Plan (Exhibit 159)?

See answer to 2.f.

- 3. Exhibit 969 does not mention a particular Strategy 4 deliverable committed to in the DFO Action Plan for MSC certification (Exhibit 159). The DFO Action Plan states in the table at page 9 that, in order to "Implement WSP Strategy 4: Design and implement a fully integrated planning process for salmon conservation", DFO will "Define a regional framework for integrated planning".

- a. Is there currently any draft regional framework for integrated planning, as committed to in Exhibit 159?

There is not a regional framework for integrated planning. Exhibit 942 provides guidance on development of Strategic Plans which was intended to form the basis for the Regional framework for integrated planning.

- b. Why is this Strategy 4 deliverable not mentioned or reported on in the status report at Exhibit 969?

The Action Plan contained in Exhibit 969 was developed in response to MSC conditions. It was not intended as an implementation plan for the Wild Salmon Policy.

4. In response to questions from counsel for Canada, you testified on how the draft 2011-2012 Integrated Fisheries Management Plan has now incorporated the recovery objectives from the 2005 Cultus Sockeye Recovery Strategy (Exhibit 942 at page 49)

- a. Was this change intended to support Condition 7 of MSC certification?

The MSC Condition 7 reads:

“Certification is conditional until the management agency provides a clear commitment to implement the recovery plan for Cultus sockeye and evidence that fisheries management actions are consistent with the recovery goals for Cultus sockeye (Fraser Condition #1.7).”

The intent of the addition of Cultus Recovery objectives into the 2011-12 South Coast IFMP was to improve clarity and transparency of the department's conservation objective to Cultus recovery. It also certainly support removal of MSC certification Condition 7.

- b. Why does the draft 2011-2012 IFMP not incorporate the provisional WSP abundance-based lower benchmark for Cultus Lake sockeye that are published in Dr. Bradford's CSAP paper (Ex. 804)?

The current lower benchmark for Cultus Lake sockeye that is being used in the FRSSI process is 7,300. Exhibit 804 estimates a lower benchmark of 10,169 using a metric of S_{gen} (abundance that would result in recovery to S_{msy} within one generation in the absence of fishing, under equilibrium conditions).

“Abundance-based benchmarks for the WSP recommended by Holt et al. (2009) were estimated using a Ricker model stock-recruitment relationship cast in a Bayesian framework to include prior information on carrying capacity. S_{gen} (abundance that would result in recovery to S_{msy} within one generation in the absence of fishing, under equilibrium conditions) and 80% of S_{msy} were used as the lower and upper benchmarks respectively (Holt et al. 2009). Stock recruit data for brood years 1950 to 2000 were used to estimate the benchmarks; more recent broods are complicated by hatchery releases. An informative prior on the lake capacity estimate that was based on various estimates of photosynthetic-rate based models was used (Hume et al. 1996; Shortreed et al. 2000; Cox-Rogers et al. 2004). The prior was normally distributed with a mean of 60 000 and a standard deviation of 6 000 effective spawners. The lower benchmark (S_{gen}) was estimated as 10,169 effective spawners and the upper benchmark (80% S_{msy}) was 28,323 effective spawners. Jacks are not included in these calculations, which may be inconsistent with the WSP criteria for wild spawners. The outcome of the current analysis will be little affected by this assumption, however (Exhibit 804 p. 5).”

Currently Ms. Grant and other DFO staff are developing a paper to identify benchmark options for Fraser River sockeye. We expect that paper will be completed this winter and a lower benchmark adopted for Cultus Lake sockeye.

c. Should it?

This is a question that will be addressed by the work that Sue Grant is leading. The metric of S_{gen} is one example for how lower benchmark's would be identified. Pages 17-18 of the Wild Salmon provide other examples.

d. Do you agree that the provisional WSP abundance-based lower benchmark for Cultus sockeye are more precautionary than the 2005 Recovery Strategy recovery objectives, and specifically more precautionary than Recovery Objective #3?

Not sure that you should do those types of comparison for objectives 1 and 2 as they really serve a different purpose than the WSP definition of a lower benchmark. With respect to Recovery objective 4 it is more comparable to a CU that is identified to be within the Amber or green zones identified in the WSP on page 17.

As to comparing Recovery Objective 3 and the lower benchmark identified in exhibit 804 (I assume this is what you mean by “provisional”) as to whether

one is more precautionary you would get a more informed answer from DFO Science staff who has the experience of working with COSEWIC criteria than I do.

With that caveat I offer the following explanation. The definition of the lower benchmark in the WSP on page 17 states:

“The lower benchmark between Amber and Red will be established at a level of abundance high enough to ensure that there is a substantial buffer between it and any level of abundance that will lead to a CU being considered at risk of extinction by COSEWIC.”

COSEWIC defines not at risk as:

“Not At Risk (NAR) - A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.”

http://www.cosewic.gc.ca/eng/sct0/assessment_process_e.cfm#tbl4

So in addressing your question the WSP lower benchmark would seem to be more precautionary.

5. You were asked by counsel for the First Nations Coalition why it took over five years to incorporate the recovery objectives from the 2005 Recovery Strategy into the IFMP.

a. With reference to Exhibit 920, do you agree that the Regional Director General directed in October 2005 that the recovery objectives be implemented through the IFMP?

Don't have exhibit 920 as not posted in Cohen Commission web site.

b. Your name is noted in Exhibit 920. What was your role in Exhibit 920?

Don't have exhibit 920 as not posted in Cohen Commission web site.

6. On June 2, referring to page 48 of Exhibit 942, counsel for Canada asked “can you explain how the IFMP treats the Cultus Lake Late-Run sockeye”. You answered that “So in this section, Cultus Lake and Late-Run sockeye, it lays out what the decision rule is to provide protection to Cultus Lake sockeye and that would be managed within a constraint of the exploitation rate identified for the

Late-Run aggregate. As I said, this has not always been consistent language across the years. As we learn more, the language has changed across the years but there's always been a section that included in the annual IFMP to provide direction and protection for Cultus Lake sockeye as far as harvest impacts.” (p.96, ll.17-37)

- a. Could you provide the exploitation rate identified for the Late-Run aggregate in each annual IFMP from 2005-2010? That is, what have been the annual exploitation targets of relevance to Cultus sockeye since 2005?

| Cultus ER | | |
|------------------|------------------|----------------|
| | allowable | actual* |
| 2004 | 10-12% | 26% |
| 2005 | 10-12% | 12% |
| 2006 | 30% | 24% |
| 2007 | 20% | 16% |
| 2008 | 20% | 13% |
| 2009 | 20% | 7% |

* preliminary numbers, work is on-going

The above is taken from a presentation developed by A. Huang that was presented to the MSC sockeye Audit May 11, 2011. The objective for 2010 is found in the 2010/11 South Coast Salmon IFMP in section 4.1.3 page 28-29

“4.1.3. Cultus Lake and Late Run

The 2010 objective for Cultus Lake sockeye is to limit the exploitation rate to a maximum of 20% to 30%, depending on in-season information. Management at the start of the season will be based on a maximum 20% exploitation rate limit for Cultus Lake sockeye. The exploitation rate limit may increase to a maximum of 30% if in-season information on the Late run sockeye stock aggregate, which includes Cultus Lake sockeye, indicates a strong return and sufficient numbers will reach the spawning grounds. If in-season information indicates a poor return of Late run sockeye or that low numbers may reach the spawning grounds, then the actual exploitation rate for Cultus Lake.”

7. You testified that the United States has “a slightly different view than Canada as far as what a Wild Salmon Policy would look like. I don’t think they necessarily totally agree with our view of what the conservation units are.”

- a. For clarify, is it your evidence that the official position of the United States Government does not agree with Canada's view of the conservation units?

On reflection I don't know whether they have provided a view on definition of conservation units as identified by Canada. The U.S. have voiced concerns about the number of management units that may be used for the management of Fraser River sockeye as per the Pacific Salmon Treaty Annex 4 Chapter 4.

- b. If yes, where is that position documented?

I have had several conversations with U.S. Panel members during my tenure as Canada's Fraser River Panel chair where they voiced concerns that implementation of Canada's WSP may lead to an increased number of management groups in order to ensure objectives for CUs are met. That view may have been captured in minutes of the Fraser River Panel.

- c. Have you heard of any concerns held by representatives of the U.S. Government on the conservation units identified by Blair Holtby and Kristina Ciruna?

Not that I recall.