

SUMMARY OF ANTICIPATED EVIDENCE

Dr. Jim Irvine

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The development of the Wild Salmon Policy

- Dr. Irvine will say that he was involved in the development of the Wild Salmon Policy (WSP) from beginning to end. Between 1999 and June 2005, he saw dozens of drafts of the WSP.
- He will say that he was the primary author of Strategy 1, but that he was involved in many other aspects of developing the WSP.
- He will say that the WSP originated at DFO with the New Directions policy initiative released by DFO in 1998. He will say that the New Directions initiative was pivotal in clarifying DFO's thinking on salmon conservation issues.
- He will say that he continues to agree with the views given in his earlier publications including *The successful completion of scientific public policy: lessons learned while developing Canada's Wild Salmon Policy* (CAN185538) and *Canada's Wild Pacific Salmon Policy and Maintenance of Diversity*. With respect to the latter publication, he will say that DFO's understanding of Conservation Units (CUs) has changed somewhat since the paper was written in 2005 and 2006.
- He will say that when Pat Chamut arrived in the Region as Special Advisor on the WSP, Mr. Chamut did not have a strong understanding of salmon biodiversity issues or CUs. He will say that Mr. Chamut learned about salmon biodiversity, became a champion for the policy, and played a major role in building consensus for and ensuring approval of the WSP.
- He can address the challenges involved in developing the WSP, including scientific, policy and institutional challenges.

Science-based biological benchmarks versus management reference points

- Dr. Irvine will say that a significant challenge in the development of the WSP related to the concept of CUs with their lower and upper benchmarks required under Step 1.2. He will say that he promoted the use of the term benchmarks rather than reference points because the latter are often associated with societal values. He will say that the debate about CU benchmarks versus reference points was difficult, and took more than a year to resolve internally in developing the WSP.
- He will say that, in developing the WSP, he felt strongly that Strategy 1 CU status benchmarks should reflect the biological status of a CU as determined by science.
- He will say that WSP CU status benchmarks are not meant to determine fishery management decisions by themselves. In contrast, he will say that limit reference points (LRPs) and target reference points (TRPs) commonly invoke decision-making.
- He agrees that the debate is partly one of nomenclature: benchmarks are a type of reference point and vice versa. He will say however that TRPs are intended to identify specific management objectives that will vary among CUs. TRPs and LRPs can occur at various points along the biological status line from red to green.
- He will say that the WSP's use of the term benchmarks rather than reference points was deliberate and is important. He says the WSP terminology sought to make clear that

there were no specific fishery or habitat or cultivation management implications associated with either of the two biological status benchmarks. He will say that the WSP did not intend that decision-making about a CU should automatically be prescribed by the CU's biological status. He will say the WSP's intention is that the identification of Strategy 1 benchmarks is scientific. Strategy 1 ensures that a biological assessment of CU status is inputted into the decision-making or planning processes. In his view, management considerations of biological status alongside social, cultural and economic considerations would occur in the Strategy 4 planning process, which is where TRPs should be identified.

- He will be asked if the use of benchmarks in the WSP, rather than reference points with decision rules, is consistent with the precautionary approach to fisheries management.
- He will discuss the effort by DFO, during WSP development, to develop operational guidelines to accompany the WSP. He will say that he was very involved in this effort.
- He will say that it was unclear, at the time, if the operational guidelines would form part of the WSP itself and be appended to the policy, or would be a separate document.
- He will say that the draft operational guidelines were intended to govern activities currently addressed in the blue sidebars within the WSP, namely harvest, habitat, enhancement and aquaculture.
- He will say that Science initiated the operational guidelines. At that time, Science had the lead on WSP development and socio-economic issues were not included in the draft policy.
- He will say that a 2002 draft of the WSP included three principles, one of which stated the need to establish operational guidelines consistent with best practices in risk management for carrying out harvest, habitat, and fish cultivation activities. This draft policy was approved regionally but when presented to the National Policy Committee in April 2002, it recommended refining the principles to provide more detailed direction.
- He will say that, as of 2002, WSP development was led jointly by Policy and Science branches within DFO. He will say that FAM subsequently expressed concern that operational guidelines would formalize decision-making rules. He will say that in 2003 and 2004, the direction shifted focus towards avoiding an overly prescriptive approach to those activities.
- He will say that he does not recall any specific decision to abandon the operational guidelines. The guidelines were never finalized.
- He believed that it was sensible to incorporate consideration of Aboriginal Traditional Knowledge (ATK) into the WSP, including in Action Step 1.1. He will say that this reflected a desire to access the best available information, which can include not only genetic and ecological information but potentially also ATK. As the primary drafter of Strategy 1, he sought to give recognition to the important role that First Nations had in the final stages of WSP development.
- He will say that, to his recollection, the requirement for an implementation plan at page 35 of the WSP was inserted into a relatively late draft of the WSP. He will say that the WSP development team did not want the WSP to simply sit on a bureaucrat's shelf.
- He will say that the Strategy 6 requirement to assess WSP implementation within five years was intended both to convince stakeholders that DFO was committed to implementing the WSP and to commit DFO to timely implementation.
- He will discuss the advice that he gave Pat Chamut regarding the time required to implement the WSP. His recollection is that he advised Mr. Chamut that DFO should be able to make significant headway with WSP implementation within five years, and that it would be valuable to have implementation progress assessed after five years. He does not recall saying that the WSP would be fully implemented after five years.

WSP Implementation generally

- Dr. Irvine will say he is a member of the WSP Implementation Team.
- He will say that the question of who currently is the Strategy 1 lead on the WSP Implementation Team is somewhat ambiguous. He will say that Mr. Neil Schubert is the logistical and organizational Science lead. He will say that he is a part of a group of scientists at DFO that provides input and advice on Strategy 1, from time to time.
- He will agree that the six Strategies in the WSP are interrelated and not autonomous.
- He will say that, since June 2007, he has had little direct involvement on Strategy 1 implementation. Over the last few years, his chief involvement on the WSP has been to collaborate with Kim Hyatt on Strategy 3, especially on its marine elements. He has focused mostly on Step 3.2, chiefly as co-chair of the Fisheries Oceanography Working Group (FOWG) which produces the annual State of the Oceans Report.
- With reference to page 35 of the WSP, he will say that he does not recall seeing or being asked to contribute to the development of any document called a WSP Implementation Plan or any long-term implementation planning document. However, he will also say that DFO discussed its WSP implementation plans with the public and First Nations during 2006 and into 2007.
- He will say that the independent Strategy 6 five year review is not currently happening, to his knowledge, and that the Policy branch has not contacted him recently about an independent external review.
- He will say that while the Strategy 6 review has occasionally been discussed at WSP Implementation Team meetings, to his knowledge, it has not come up in the fall of 2010, except as an internal DFO review.

Implementation of Strategy 1

- Dr. Irvine will explain that Action Steps 1.1, 1.2 and 1.3 are generally required to be implemented sequentially, in accordance with the logic of Strategy 1.
- He will say that only after CUs are defined can indicators and benchmarks for those CUs be identified, and only after CU benchmarks are identified can one categorise CU status. However, he will say that, even without CU benchmarks, monitoring of CU status can and does still occur, although not specifically as contemplated by Step 1.3.
- With reference to a table of review, approval and publication dates for PSARC publications, he will say when CUs were originally defined under Step 1.1. He will say that many sockeye CUs were scientifically relatively easy to identify, although they may be the most controversial.
- He will say that Dr. Blair Holtby, working with Dr. Ciruna, was the principal scientist working to define (i.e. identify) CUs, and that Dr. Holtby's methodology received widespread approval both internally and externally. He will say that Dr. Holtby's original CU definitions were largely uncontroversial and accepted.
- With reference to page 16 of the WSP, he will discuss the June 2007 PSARC review of Dr. Holtby's methodology for defining CUs. He will say that the list of CUs was deliberately not included with this paper, and that this decision was made because the list was subject to change. He will say that there was no scientific peer review meeting examining the list of CUs themselves, just of the CU identification methodology.
- He may be able to describe Dr. Holtby's recent revisions to the original CU list, specifically with respect to Fraser River sockeye CUs. He may say whether the public and stakeholders have received notice of or input into those modifications.

- With reference to page 16 of the WSP, he will be asked about DFO's consultations with First Nations in the process of defining CUs. He will say that, in implementing Step 1.1, DFO decided internally that the definition of CUs was a science issue, to be augmented by local including Aboriginal Traditional Knowledge where available.
- He will say that, generally, First Nations were consulted on proposed CU definitions in the same manner that multi-stakeholder groups were consulted. Specifically, he will say that in the fall of 2006 and into January 2007, DFO held public forums around BC. Those public forums addressed various WSP strategies, and also other topics like EPMP and SARA listings. He will say that there were two distinct, separate meetings in most locations, one for First Nations representatives and one for all stakeholders including First Nations.
- He attended and participated in several WSP forums, and he assigned Ray Lauzier to attend other WSP forums.
- He can identify the presentations made at and records arising from those consultations, including DFO consultants' reports. He will say that the same PowerPoint presentation for Strategy 1 was made at each meeting, but that the maps used differed depending on the geographic area of interest. He will say DFO provided lists of provisional CUs. He will say that the DFO presentation addressed how the CUs had been provisionally defined, and concluded with a series of questions designed to obtain feedback.
- He will say that, in these WSP forums, DFO staff put maps showing the proposed relevant CUs on the walls of the meeting rooms. DFO staff asked participants in the WSP forums to review the maps and provide their responses to the proposed CU designations. One way that participants provided feedback was by attaching sticky notes with their comments to the maps. He will say that one of the tasks assigned to Mr. Lauzier was to assemble these notes and that Mr. Lauzier subsequently met with Dr. Holtby to go through the input.
- In addition, he will say that participants were encouraged to respond by e-mail with any comments, and that meeting minutes and summary reports also captured many verbal comments. He recalls a comment at the meeting in Prince Rupert, where it was pointed out to DFO that their maps showed a number of streams on Haida Gwaii flowing the wrong way.
- He believes that all comments related to the CU designations would eventually have been received by Dr. Holtby. He will say that it was Dr. Holtby's judgement whether to incorporate this input in defining or re-defining the CUs.
- He does not recall bilateral consultations with individual First Nations although DFO staff offered to make themselves available for such meetings if requested. He would not have necessarily known about such meetings if organised and attended by regional staff.
- He will be asked about DFO's commitment at page 18 of the WSP to prepare and publish operational guidelines on the estimation of the level within a CU's Red zone where the CU cannot sustain further mortalities due to fishing or change to habitats without increasing the probability of extirpation. He will clarify that these guidelines are different than those drafted earlier in policy development. In drafting this statement, the WSP development team was deliberately vague. He will say that the intent was to ensure a substantial buffer between the CU lower benchmark and when a CU might be considered at risk of extinction by COSEWIC. He will say that he has not seen any draft operational guidelines through the WSP Implementation Team or Strategy 1 team.

Implementation of Strategy 3

- Dr. Irvine can identify the efforts that have been made by Science to date on Strategy 3 implementation, including analysis, presentations, workshops and public consultations.
- If asked, he can discuss his recent presentation to PICES on Strategy 3. He will say that the presentation is not new information, but presents existing work primarily by him and Dr. Hyatt.
- He will say that he and Dr. Hyatt have been attempting to develop ecosystem-based science and management, including related to Pacific salmon, for their entire careers. He views their work on Strategy 3 as a continuation and evolution of past work.
- He will say that DFO is still figuring out how precisely to implement an ecosystem-based approach to Pacific salmon, including under Strategy 3. He will say that identification of ecosystem indicators and the development of an ecosystem monitoring and assessment approach, as required under Step 3.1 by June 2007, have not been finalized.
- He will say that his former efforts on Strategy 3 included working with Dr. Hyatt, Ray Lauzier and Dr. Janelle Curtis to develop preliminary operational ecosystem objectives for fisheries management, habitat, enhancement and aquaculture. He concentrated on fisheries. He will say that this effort was primarily in 2007 and into 2008, but that it has stalled. Mr. Lauzier and Dr. Curtis are not longer assigned to this work.
- Since that time, he has been less involved in Strategy 3, except through his continuing efforts to integrate information relevant to Pacific salmon into the FOWG's annual State of the Ocean Report of which he is a co-editor. He will say that he increased the information about and focus on salmon in the 2007, 2008 and 2009 published reports.
- He will say that contributions to the State of the Ocean reports are voluntary, and that he cannot guarantee information relevant to sockeye will be provided each year.
- He will say that the FOWG's State of the Oceans reports contribute to understanding salmon survival in a particular year. As an example, he may note that the top story in the 2009 publication was that 2008 (the sea entry year for most Fraser sockeye returning in 2010) featured the coolest ocean temperatures in 50 years. He may note that the second highlight was the 2008 record-high plankton numbers in the Gulf of Alaska, both of which would be expected to benefit salmon survivals.
- He will agree that a Strategy 3 discussion paper proposing ecosystem indicators and an ecosystem monitoring and assessment approach is long overdue, and that a discussion paper would serve to engage the public and stakeholders.
- He will say that implementation of Strategy 3 is challenged by limited human resources.
- He will say that another limiting factor on Strategy 3, as with WSP implementation generally, is the lack of strong leadership and direction from senior management.
- He will say that, in his opinion, it is not useful to focus on whether various ecosystem-based salmon science relates to Step 3.1 or Step 3.2. Rather, he believes it is more important for DFO and its partners to focus simply on implementing ecosystem-based management.

Challenges to WSP implementation

- Dr. Irvine will say that DFO has sufficient in-house expertise to implement scientific components of the WSP.
- He will be asked about the DFO Action Plan to Address Conditions for Marine Stewardship Certification of British Columbia Sockeye Fisheries dated December 21, 2009 ("the DFO Action Plan"). Specifically, he will be asked about those conditions for Fraser River sockeye that relate to the implementation of WSP Strategies 1 and 4. In

particular, he will be asked for his views on the DFO Action Plan's use of LRPs and TRPs in the context of the conditions related to the WSP, rather than WSP benchmarks.

- He will say that the DFO Action Plan's use of LRPs and TRPs, if those terms are given their common meaning, misunderstands the WSP and its use of science-based biological benchmarks. He will say that the drafter of the DFO Action Plan did not appear to understand the difference between WSP biological benchmarks and management reference points. He will say that he was surprised and disappointed to see lower and upper WSP benchmarks equated with LRPs and TRPs.
- He will say that, in his personal opinion and from a conservation perspective, an appropriate LRP would be the WSP upper benchmark. He disagrees with the DFO Action Plan approach of equating LRPs with the WSP lower benchmark.
- He will say that he was not consulted on the DFO Action Plan. Before October 2010, he had not seen the document and did not know who in Science had been involved.
- He will be asked whether the delays between the time a PSARC paper is reviewed, approved by DFO managers, and made publically available has any consequences for WSP implementation. He believes that the timeliness of the CSAS process has been discussed nationally, and that CSAS may have released guidelines setting out timelines. He will say that delays in finalizing and publishing PSARC papers relate to workloads.
- He will say that having an upper level champion to oversee WSP implementation would speed up the process. He will say that, in his own personal view, this may provide more direction and coherence than the current coordination model.
- He will say that, in his own personal view, a challenge to WSP implementation is how DFO sectors are organized. Specifically, he will say that it would be more effective to approach the WSP as an integrated whole, rather than parsing out the Strategies and Action Steps amongst different sectors. He will say that while a sector-based approach may have made sense initially, the need to integrate harvest and habitat management and pursue an ecosystem-based approach requires more integrated governance.
- He will also say that public inclusiveness, which was key to successful development of the WSP, is also required for implementation. He believes that input from the extended peer community, including members of the public, environmental organizations, stakeholders, and First Nations is needed to identify practical ways of resolving wild salmon conservation issues.