Choosethical Ventures Inc

Updating the Commercial Salmon Allocation Framework

Phase 2 Report

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Executive Summary

Fisheries and Oceans Canada (DFO) is undertaking an initiative to update the current Commercial Salmon Allocation Framework. The Department engaged commercial salmon harvesters through the Commercial Salmon Advisory Board (CSAB) and First Nations through the First Nations Salmon Coordinating Committee (SCC) under Terms of Reference (Appendix A) that outlines the scope and purpose.

Section 1 and 2 of this report briefly describes the background and context in which the initiative is taking place and why it is important. The initiative is intended to address the deficiencies in the current framework and changes are intended to improve the long-term stability, certainty, and resilience of the commercial salmon allocation arrangements. Further, the framework update is meant to provide more flexibility to licence holders to make effective business decisions and thereby better respond to uncertainty in salmon abundance and changing market conditions.

Section 3 outlines the two phases of this yearlong engagement process. Phase 1 focused on gathering information on why change to the framework was important and this led to participants identifying their objectives and proposals for change. Pam Cooley prepared a separate Phase 1 report on the deliberations. (Appendix B). Phase 2 concentrated on the evaluation of the proposals for change through an independent socio-economic (S/E) analysis.

Section 4 notes the formation of an additional group in Phase 2 in support of the process. Two groups, the Commercial Salmon Advisory Board (CSAB) and the Salmon Coordinating Committee (SCC) comprised of First Nations interests, met separately with DFO during both phases of the initiative. In addition, in Phase 2, a small number of participants from DFO, SCC and the CSAB (the “Small Group”) met to discuss the change proposals to improve understanding and then reported its findings back to the main tables of each group.

Section 5 summarizes how the S/E analysis was undertaken and how the consultant evaluated the change proposals. The 15 change proposals (14 from the CSAB and 1 from the SCC) and the nearly 100 indicators and 38 objectives outlined during Phase 1 were grouped and organized by the consultant, after feedback from participants, into four Change Approaches with 18 indicators and 8 objectives. The four Change Approaches were organized from the most modest change to the current framework, or status quo, (Change Approach 1; Area G sockeye equivalent change), to the greatest change to the current framework (Change Approach 4; the “phased approach”); and included two middle ground approaches. Change Approach 2 combined elements of several CSAB ideas for change (the “Evergreen” proposal) while Change Approach 3 highlighted some elements of the SCC proposal.

Section 6 outlines the results from the Small Group, which reviewed the SCC First Nation proposal and the CSAB “Evergreen” proposal. Although a number of operational concerns arose, particularly over the flexibility that the First Nations sought in applying shares as outlined in their proposal, the following points of common interests were identified:

- Allocation arrangements should move from an annual to multi-year basis;
- Harvest shares should be defined for First Nations and commercial Area A-H licences at the species-production area level (e.g. 22 species-production areas have been defined);
- Sockeye equivalents may be used to inform the setting of the initial allocations at the fisheries production area/fleet/FN level but would otherwise no longer be used; and, many participants also supported that harvest shares associated with commercial licences for transfer or relinquishment should be based on the principle that each licence in a fleet has an equal share or percentage of the commercial TAC or harvest based on the total number of licences that are eligible in that specific licence category. However, there was not concensus on this principle and some First Nations participants favoured an approach that would use active licences only to determine the transferred share.

Section 7 summarizes the key comments and observations from the participants on the preliminary socio-economic analysis outlined in a draft report prepared by Sandy Fraser. In general, the participants thought the S/E analysis was important and most regarded this as a key feature of the initiative to update the framework. Nevertheless, there were a number of concerns over the results of the analysis and these included: 1) the characterization of the Change Approaches analyzed were thought by some as too simplistic or inaccurately described some of the proposals; 2) the selection of the objectives and indicators to facilitate the analysis were thought by a number of participants to favour economic over social values and to bias the results; 3) the assumptions used in the analysis (e.g. expected price increases) raised a number of questions and, in several instances, were judged inappropriate; 4) there were observations that the assumptions used in the analysis were flawed and did not reflect the complexities of management in certain areas; and 5) the studies available for the analysis were thought by some to be incomplete and not sufficiently representative of the diversity of First Nations' economic opportunity or demonstration fisheries.

Regardless of the concerns over the analysis, its results and the subsequent discussions underscored the areas of agreement for change among many of the participants: notably, fixing shares for commercial fleets and First Nations at the fishery production level on a multiple year basis. Similarly, there was strong support for more flexibility for First Nations and commercial fleets to decide how to fish the shares and there was a general understanding that a "one size fits all" approach was not practical. At the same time the Department emphasized that a review of the operational feasibility of implementing any changes would need to be carefully considered before any changes to fisheries could be made.

Finally, section 7 also notes the differences in the consultant's draft report on the socio-economic analysis that was presented to participants and the final report submitted after considering the views of the participants. Overall, the final report provided more clarity and explanation regarding the indicators and assumptions used in the analysis but its conclusions and outcomes were very similar to the draft report. In general, there were limited changes in the performance of most of the Change Approaches, however, a notable exception was Change Approach 1, where the price increase assumed in the draft report was removed in the final report based on feedback from participants.

Section 8 highlights the views of the two groups on continuing work on the initiative to update the framework. The CSAB has recommended that it meet this fall to identify the initial shares at the fishery production area and fleet level while First Nations SCC members intend on informing its communities on the deliberations of Phases 1 and 2. Both groups have suggested that further meetings of the both the SCC and the CSAB would be useful to address the outstanding operational issues that were noted in the "Small Group" meetings. The Department for its part has noted that Phase 1 and 2 have been completed, an extension of the process would require a compelling reason, and that it will review advice received over the summer.

Section 9 documents my key observations from Phase 2, including some remarks on the overall engagement process followed in updating the framework. In summary, the overall engagement approach (for both Phases 1 and 2) has been robust and its participation, thoughtful. Notwithstanding the robust engagement, some First Nations spoke of a lack of capacity to fully participate in discussions, and First Nations in general thought this process did not remove the requirement for DFO to consult bilaterally with First Nations as may be necessary. In addition, the CSAB in particular would have benefited from some technical support to organize and coordinate their perspectives on Change Approaches and consolidate the numerous proposals made. Some capacity dedicated to pulling the various change ideas together into a single approach, perhaps a more refined Evergreen proposal, would have further strengthened the CSAB efforts and aided the process in general.

The process demonstrated, particularly with the Small Group, that a collaborative approach is an effective use of experience and knowledge and supports increased understanding and relationship building between interests. It also showed that DFO's role to provide information and support the collaborative process as a resource has merit.

It is evident from the S/E analysis that no single Change Approach delivers superior performance across all indicators and objectives. However, there is broad, but not unanimous, support among CSAB members and SCC participants for fixing shares for the commercial fleets and First Nations at the fishery production area level and for a multiple year period an idea captured by Change Approaches 2 and 3.

There are several areas (e.g. ESSR, transfers of uncaught TAC, management flexibilities, etc.) that will require further discussion and SCC and CSAB members have indicated that these may be further clarified and resolved if further time is provided for discussion.

Any decision to extend should consider the potential benefits of doing so and consider a design that supports more collaboration and increased agreement on broadly supported changes that are feasible to implement. A focus on how Change Approaches 2 and 3 could be made more acceptable, factoring in the initial work of the small group, could be a solid basis for continuing the process.

Finally should the Department decide to continue the process it should develop a clear process, including clearly defined timelines, expectations and scope of the new work. Although various parties raised some issues with the current TORs, it is clear that these were highly useful in guiding the discussions and focusing the work in a pragmatic and useful way.

1. Background

This process has been informed by Terms of Reference prepared by the Department following input from CSAB and First Nations. In summary, the initiative to update the current Commercial Salmon Allocation Framework is intended to address one element of the Mitigation Program to implement changes to the Chinook Chapter of the Pacific Salmon Treaty (PST) announced by the Department in 2010. This includes addressing the deficiencies in the current Commercial Salmon Allocation Framework that were identified by the CSAB and the Integrated Advisory Group (IAG) formed to provide advice on PST mitigation. Equally as important, this work is intended to improve the long term stability, certainty, and resilience of the commercial salmon allocation arrangements, and provide more flexibility to licence holders to make effective business decisions, and thereby better respond to uncertainty in salmon abundance and changing market conditions.

The scope of this work is to update the commercial salmon allocation arrangements within *An Allocation Policy for Pacific Salmon*[1]. The Commercial Salmon Allocation Framework relates to allocations within the commercial sector (see section 4.3 of *An Allocation Policy for Pacific Salmon).* For the purposes of this process "commercial" refers broadly to any existing commercial and First Nations fisheries where the licence holder has been permitted to sell fish. The existing allocation priorities for First Nations food, social and ceremonial and recreational salmon fisheries will be maintained, consistent with this Allocation Policy.

The Department has noted that outcomes from this initiative must also be consistent with its key direction. For example, conservation of wild Pacific salmon and their habitats is the highest priority in resource management decision-making and any changes to the Commercial Salmon Allocation Framework will respect *Canada's Policy for Conservation of Wild Pacific Salmon* (the 'Wild Salmon Policy').

DFO will consult with Aboriginal groups when allocation decisions may potentially affect Aboriginal fishery interests, in accordance with S. 35 of the Constitution Act (1982), relevant case law, and consistent with Departmental policies and considerations. Further, this process will not in any way define or limit any aboriginal title or rights of First Nations, and will be without prejudice to the positions of the parties with respect to Aboriginal title or rights.

The Terms of Reference for Updating the Commercial Allocation Framework further outlines the process, objectives and questions to help inform the discussions, strategic context and management considerations and evaluation criteria.

2. Context

Potential changes to the Commercial Salmon Allocation Framework are taking place in the context of current and anticipated issues facing commercial salmon harvests. Factors such as climate change and

[1] http://www.pac.dfo-mpo.gc.ca/fm-gp/species- especes/salmon-saumon/pol/index-eng.html

other environmental factors are anticipated to continue to create uncertainty and will likely increase variability of salmon returns and shifts in species productivity.

The fiscal climate will place a premium on effective cost management. The Department's role will continue to be focused on achieving core objectives, such as ensuring the conservation of Pacific salmon, promoting responsible and sustainable fisheries, and removing barriers and unnecessary rules that restrict flexibility.

Changing local and global market conditions as well as First Nations seeking increased flexibility to access to commercial harvest opportunities to meet their economic and social endeavours underlie the changes to be made to the framework. The importance of finding solutions that better address these instabilities while promoting more cooperation and providing additional clarity on how opportunities are provided by DFO to both commercial and First Nations' interests cannot be underestimated.

3. Process

- Phase 1 – gather information, identify options. Phase 1 report: 15 proposals put forward that were distilled into 4 Change Approaches, prepare Phase 1 report
- Phase 2 – analyze 4 Change Approaches, socio-economic analysis; form small group of CSAB, SCC and DFO to review, compare and clarify common understandings on SCC and CSAB proposals.
- Meetings in Phase 2 - Separate meeting were held with each of the main groups. The dates were:

  Jan 27-28 CSAB/ Jan 29-30 SCC
  Feb 27-28 SCC / Feb 20 CSAB
  Apr 1-2 SCC/ Apr 7/9 CSAB
  Apr 28 - SCC Tier 1
  May 26-27 SCC/ May 28-29 CSAB

4. Small Group Formed

After Phase 1 during the regular meetings with the FN SCC and the CSAB, it was noted there were common elements emerging among some of the proposals and a strong interest from the groups to understand the other group's approach. Participants agreed that it would be useful for a small group of designated CSAB and SCC members to meet to discuss in more detail the proposals to increase and improve understanding and then report back to the main tables. This process happened simultaneously and fed into the ongoing separate group process.

Five "Small Group" meetings took place between DFO, FN SCC and CSAB members: April 8, April 24, April 29, May 8, and May 20.

Membership of Small Group

- CSAB: Bob Rezansoff (Area A/B), Dane Chauvel (Area H), Joy Thorkelson (Area C/UFAWU-UNIFOR)
- SCC: Don Hall (WCVI), Karl English (North Coast), Marcel Shepert (Upper Fraser), Larry Greba, alternate (Central Coast)
- DFO: Jeff Grout, Paul Sprout
- Facilitator: Pam Cooley

5. Approach to Socio-Economic Analysis

The objectives and tasks set for the socio-economic analysis in the Terms of Reference were to:

- Solicit input from First Nations and commercial interests on the types of impacts that they viewed as important to measure.
- Based on the above, propose a list of objectives and indicators to be used in assessing the changes to allocation arrangements.
- Measure the economic implications of various allocation arrangements developed by the consultation process with DFO, First Nations, and commercial stakeholders.

This approach yielded 38 objectives and over 100 indicators. Additionally the participants had already identified 15 change proposals for allocation arrangements. In order to keep the analysis manageable and to avoid duplication of purpose in the objectives and indicators, the consultant consolidated the results within 7 objectives and 18 indicators. The 15 change proposals were also distilled into 4 Change Approaches. The 4 Change Approaches were intended to provide a general representation of potential approaches for updating the commercial salmon allocation framework based on the range of views on keys issues. The 4 Change Approaches reflected a continuum of potential changes from most modest to most extensive and were intended to inform participants on the most (or least) desirable changes to the allocation framework. The suggested objectives, indicators, and Change Approaches were presented to the participants for feedback, before the analysis began.

5.1 Consolidated indicators and objectives

The final report by the socio-economic analysis on the "Socio-economic Implications of Suggested Approaches for Updating the Commercial Salmon Allocation Framework" is provided in Appendix C.

The table below provides a summary of the 7 key objectives expressed by the process participants and key indicators and metrics proposed to evaluate these.

Summary of Objectives and Key Indicators for Analysis

Overarching Objectives	Key Indicators	Metrics
Objective 1: Greater Certainty of Access to Salmon Resources	Duration of Allocation Agreement	Defined Impact (annual/multi-year/permanent)
	Includes a Specific Allocation for First Nations?	Defined Impact (yes/no)
	Projected Change in the TACC Harvested by Fleet/FN	Numeric (%)
Objective 2: Increased Economic/Financial Benefits from Fishing	Change in total net income by fishery (licence area fleet and First Nations)	Numeric ($)

	Change in fishing income by social group (crew, operator, vessel, active/inactive vessels)	Numeric ($)
	Likelihood of increased management costs to DFO for stock assessment and/or fisheries enforcement	Defined Impact (unlikely/neutral/likely)
Objective 3: Increased Social Values from Fishing	Change in number of fishers by fishery (licence area fleet and First Nations) and by social group (crew, operators)	Numeric (# of fishers)
	Change in average days fishing per vessel (licence area fleet)	Numeric (# of days)
	Assessments of improvements to safety in the fishery	Defined Impact (positive/negative/neutral)
Objective 4: Improved Financial and Social Viability from Fishing	Change in average income per vessel by fishery (licence area fleet and First Nations)	Numeric ($)
	Change in average income by social group (crew, operators and active/inactive vessels)	Numeric ($)
Objective 5: Improved Clarity and Fairness when Allocations are Transferred	Are allocation arrangements clear?	Defined Impact (yes/no)
	Are the transferability provisions clear?	Defined Impact (yes/no)
Objective 6: Improved Governance of the Fishery	Potential for other rules and regulations to be relaxed.	Defined Impact (high/medium/low)
	Potential for additional management agreements with First Nations	Defined Impact (high/medium/low)
	Potential for more co-operative planning among First Nations, DFO and commercial interests	Defined Impact (neutral/improved)
Objective 7: Improved Resource Sustainability	Is improved catch monitoring and reporting required? (yes/no/uncertain)	Defined Impact (yes/no/uncertain)
	Potential to improve the management of WSP Conservation Units in the fishery	Defined Impact (low/medium/high)

Source: Fraser and Associates Economic Consultants, The Socio-Economic Implications of Suggested Approaches for Updating the Commercial Salmon Allocation Framework

The analytical approach followed by the consultant can essentially be characterised as a forward looking approach, based in part on historical data (with some modification to account for PST chinook harvest reductions) to forecast potential implications of implementing any particular change approach in the future. The consultant's approach was to document key assumptions used in the analysis based on expert judgment and participant feedback. There was limited sensitivity analysis of many assumptions given the time constraints, nevertheless the analysis was intended as a way to focus the discussion of possible changes to allocation arrangements and identify key uncertainties that may impact outcomes.

5.2 Description of the Change Approaches and results of the analysis

The various change proposals created by the participants reflected their efforts to deal with issues in the current commercial salmon allocation arrangements. Since there were too many proposals to analyze, the consultant categorised them based on their differences in relation to three key headings. These are: how the proposals dealt with the scale of the allocation (whether geographic or biologic); how to distribute the allocation and to whom; and issues of transferability.

This resulted in four Change Approaches, ranging from the most modest to the most extensive change, which the consultant felt reflected the range of views on keys issues. In effect these became conceptual

approaches to support the analysis of various proposed change elements. The consultant's description of the four Change Approaches and a summary of his key findings are listed below. The next section summarises the participant's own comments on the consultants' findings.

Change Approach 1: Most Modest Change

This approach was intended to reflect several of the elements in the CSAB 'Area G' proposal.

Description:

- Maintains the current coast-wide target shares by gear type.
- Revises the current sockeye equivalent calculation in order to eliminate penalties for successfully adding value to the catch.
- Maintains all current transferability provisions for uncaught allocations between fleets and between fleets and First Nations.

Results of analysis:

- No greater certainty of access; this process would still require annual re-balancing of shares using a revised sockeye equivalents calculation.
- This is essentially a redistribution of benefits (financial and social) to Area A seine, Area F and G troll.
- Assumed price increase leads to overall positive financial impacts.
- No anticipated changes to governance or costs to DFO.

Change Approach 2: Middle Ground 1

This approach was intended to reflect several of the elements in the CSAB 'Evergreen' proposal.

Description:

- Establishes target shares of the total allowable commercial catch (TACC) for each species by production area, fleet (gear type) and for First Nations communities based on relinquished commercial licences.
- Includes the ESSR in the TACC.
- Provides specific allocations for non-target (by-catch) species in each fishery.
- Requires business arrangements for the transfer of any uncaught allocations between fleets and between fleets and First Nations.

Results of analysis:

- Greater certainty of access.
- Assumed price increase leads to positive financial and social impacts for all fleets.
- Reduction in financial (but not social) benefits to inland fisheries with very little benefit to fleets from transfer of ESSR.

- Governance impacted through expected undermining of management arrangements with FN.
- Some increased costs to DFO related to the need for more localised stock assessment information.

Change Approach 3: Middle Ground 2

This approach was intended to reflect several of the elements in the FN SCC proposal. However, several changes to this proposal have been considered over the last several months and these changes were not captured in this analysis. For example, many of the SCC members now support using the total eligible number of commercial licences, including active and inactive vessels to determine shares, however, some still support the use of 'active' licences as was done in this analysis.

Description:

- Establishes target shares of the TACC for each species by production area, fleet (gear type) and for First Nations communities based on relinquished licences as in Change Approach 2, however, First Nations allocations were based upon active licences only rather than the entire number of eligible licences in each fleet.
- Does not include the ESSR in the TACC.
- Provides specific allocations of non-target (by-catch) species in each fishery.
- Maintains current (uncompensated) transferability provisions for fish that cannot be accessed in downstream areas.

Results of analysis:

- Greater certainty of access (as in Change Approach 2).
- Reduction in financial and social benefits to area fleets as FN allocations based on only active licences results in redistribution of financial benefits from coastal areas (A to H and coastal FN licence holders) to inland fisheries.
- Governance impacted through expected undermining of management arrangements between FN, commercial interests and DFO.
- Some increased costs to DFO related to the need for more localised stock assessment information.

Change Approach 4: Most Extensive Change

This approach was intended to reflect several of the elements in the CSAB's 'Phased Approach' proposal, which envisioned individual quota arrangements with provisions to limit permanent transfers that might lead to reductions in some gear types over time.

Description:

- Further sub-divides the target shares for each species by production area, fleet (gear type) and species down to individual licences based on equal shares of the allowable catch for each species/stock to all licence holders.

- Identifies a specific harvest share for First Nations as in Change Approach 2.
- Provides for some transferability of individual shares within fleets on a temporary (one year) basis with a maximum cap on total quota holdings by individual licence holders and fleets.
- Provides for transferability of individual shares between fleets and First Nations on both a temporary and longer-term basis.

Results of analysis:

- Greater certainty of access.
- A significant financial benefit to area fleets. No expected change to financial benefits for inland fisheries.
- Negative social benefits to area fleets through reduced active fleet sizes and associated impacts on total employment.
- Improved governance expected with area fleets but less clear impacts on cooperation between FN and commercial interests or DFO and FN.
- Increased costs to DFO related to the need for more localised stock assessment information and for the official accounting of harvests against allocations and recording of transfer arrangements.

6. Results from the Small Group Process

The small group (CSAB, SCC and DFO) reviewed the SCC and Evergreen proposals in order to identify the areas of common agreement and to clarify understanding of any differences where these might be present. Several points of common interests were identified:

1. Allocation arrangements should move from an annual to multi-year basis;
2. Harvest shares should be defined for First Nations and commercial Area A-H licences at the species-production area level (e.g. 22 species-production areas have been defined);
3. Sockeye equivalents may be used to inform the setting of the initial allocations at the fisheries production area/fleet/FN level but would otherwise no longer be used; and,
4. In addition, many participants agreed harvest shares associated with commercial licences for transfer or relinquishment should be based on the principle that each licence in a fleet has an equal share or percentage of the commercial TAC or harvest based on the total number of licences that are eligible in that specific licence category. However, there was not consensus; some First Nations participants did not support this principle and favoured an approach that would use active licences only to determine the transferred share.

Summaries of the common areas of agreement and areas for further discussion are noted in a table prepared by DFO with the support of the participants (Appendix D); and, a summary of areas of agreement (Appendix E) prepared by Karl English which summarized the various perspectives and was used to communicate the work of the small group to the broader SCC and CSAB.

The small group discussions also confirmed the objective of the SCC proposal to permit increased flexibility in harvesting the FN shares including method, area and timing of harvest. These aspirations

raised a number of operational questions on how the initial shares would be respected, what population information would be necessary to allow this flexibility, the costs (and who pays) associated with the operational implementation and the implications of this approach on the existing commercial fisheries. In several instances, specific examples of how this approach might work in certain fisheries were examined and ways of mitigating concerns (e.g. by developing compliance standards, clarifying information requirements and describing reporting obligations) were explored (see matrix, Appendix F). Additionally, the flexibility sought by the First Nations also highlighted the question of how similar flexibilities could be provided to the commercial A – H licence holders and, if so, under what circumstances. Lastly, some concerns were raised by some of the CSAB participants on the long term potential of such flexibility to displace the existing commercial fishery participants in marine areas; discussion on this point centred on to what extent this was likely and how this might be addressed were it to be an important risk.

The small group discussions underscored the interests of all the parties to work together on both clarifying the proposals and considering ways of mitigating issues, particularly those related to implementation of the proposed changes. Although substantial improvement in understanding the proposals was achieved, and significant overlap in key elements of the SCC and CSAB evergreen proposals acknowledged, the small group identified the need for additional discussion to continue exploring how implementation issues might be resolved. Regardless, all parties thought that additional discussions focussed on how the proposals would be implemented and outlining how particular concerns might be mitigated would be beneficial. In general, the participants thought that working together would increase the possibility of any changes to the commercial salmon allocation framework being implementable and thus more broadly accepted and supported if adopted.

7. Summary of Comments on the Socio-Economic Analysis and its Results

Comments on the socio-economic analysis ranged in terms of depth of assessment and support. The UFAWU/UNIFOR, the SCC, the ONA, SFC, NCSFNSS, LFFA, and DFO submitted written comments on the socio-economic analysis and draft Phase 2 report. They are attached in Appendix G.

The following section does not summarize all the comments by the various participants in response to the S/E analysis. The results summarized here are intended to identify the main points and observations organized under five key categories. These are:

- The socio-economic analysis approach
- Responses to the characterization of the options for change
- Perspectives on the assumptions and indicators
- Views on the preliminary analysis and its results
- The socio-economic report

7.1 The socio-economic analysis approach

- The SCC, CSAB and DFO all described the socio-economic analysis and its approach as a potentially useful framework or tool to inform discussions on potential changes to the commercial allocation framework.

- Several participants observed that the S/E analysis facilitated and helped support a better understanding of the various proposals. The improvement in understandings can be linked in some instances to subsequent suggestions to refine proposals. In the case of the CSAB, following the S/E analysis, they have recommended that the CSAB Evergreen proposal be further developed amongst them in order to address some of the issues that were evident in the analysis (see letter from CSAB to DFO in Appendix H).
- Notwithstanding the merits of the S/E approach, there were a number of concerns with aspects of the analysis (see appendix C) and its limitations, particularly related to the assumptions used, lack of data with which to effectively analyze some changes and differences in how individuals or groups might value certain objectives over others.
- Several participants also suggested there would be considerable value in exploring the sensitivity of the results in the analysis to 'what if' scenarios about possible future conditions. Examples included changes in abundance or access to the 5 salmon species, prices, and other factors that could affect the commercial fishery in the future. There was limited time to conduct this type of analysis here.

7.2 Responses to the characterization of the options for change

- The organisation of the many initial change proposals into four Change Approaches was understood to be a necessity for the analysis but the consolidation of the 15 initial proposals raised a number of concerns. In general these were that the description of the Change Approaches oversimplified complex changes and did not include the detail and specifics that, for the most part, had been included in many of the original proposals which undermined the usefulness of the analysis in evaluating proposed changes to the CSAF.
- The CSAB, as an example, thought after considering the description of Change Approach 2 (the "Evergreen" proposal) that it would be useful to further describe this proposal and remove some of the ambiguity over what the gear and fleet shares were and thus make this proposal for change clearer and more understandable.
- First Nations noted that Change Approach 3 (containing elements of the SCC proposal) did not adequately capture the broad ideas for change noted in the current SCC proposal, was too simplistic and left out many components thought important during SCC discussions and therefore did not accurately represent the SCC proposal. However, views diverged on how the consultant treated active versus inactive licences with some First Nations in favour of using active licences to determine shares as was done in the Change Approach 3 analysis while most delegates did not favour this separation.
- The SCC-CSAB small group discussion confirmed that the SCC change proposal was based on the understanding that each commercial licence had an equal share of the commercial TAC (or harvest) based on the total number of eligible licences in that licence category. It was observed that the considerable clarification of the SCC proposal and, to a lesser extent, the Evergreen proposals during the regular meetings was not reflected in the socio-economic analysis. However, it was also acknowledged that this work occurred after the Change Approaches for the S/E analysis had already been defined by the consultant.

- Finally, in contrast to the majority of the comments that the Change Approaches missed key details, for Change Approach 1 the consultant had to fill in the detail of the Change Approach to undertake the analysis and this prompted several questions. In Change Approach 1 the commercial troll advisors did not provide a specific mechanism for revising the sockeye equivalents calculation, a key element of their original proposal. This required that the consultant establish a mechanism and use this in applying a new price formula. Questions were raised on the basis of the new mechanism and the observation was made that the annual re-negotiation to balance coast-wide gear allocations would still be necessary and this had not been undertaken in S/E analysis thus calling into question the validity of the results.

7.3 Perspectives on the assumptions and indicators

- Views varied on both the merits of the indicators used to measure change and the assumptions employed to undertake the analysis. For example, some thought that the indicators were heavily weighted in favour of economic considerations and under-represented social indicators. First Nations and some commercial participants emphasized the importance of participation in the fishery and the social value this brought to the communities, which they thought did not receive the prominence necessary in the analysis and therefore biased the analysis in favour of economic over social considerations.
- Other participants, although supporting the indicators used, had differing views on how the indicators would be influenced by the proposed allocation changes. Thus questions were raised on the assumptions used to determine prices, fishery participation levels and catch. Although the assumptions used within the analysis were described a number of the participants thought that more should have been done to seek input on the assumptions employed.
- A related issue was that participants felt the scope of the work did not allow for enough sensitivity analysis to be done to test the assumption results and explore “what if” scenarios. It was suggested by some that focusing on the assumptions instead of the forecasted results for each indicator and getting participants input on the assumptions might have been a better way to gather more agreement on the results. There was concern that economic benefits of proposed flexibilities in fisheries operations and the greater certainty associated with a move away from annual allocations based on sockeye equivalents were not included.
- In addition, SCC members raised concerns the report did not adequately reflect the available information and/or current understanding of how some fisheries are managed and that the studies relied on for the analysis were not necessarily representative of the diversity of First Nations’ economic opportunity (EO) or demonstration fisheries. Concerns were raised that this may have created biases in the results of the S/E analysis given that the economic valuation relied heavily on catch data.

7.4 Views on the preliminary analysis and its results

- Not surprisingly there were a wide range of views and reactions to the S/E analysis and its preliminary results as described in the consultant’s draft report. In general the results tended to reinforce the understanding that a move away from an annual approach based on sockeye equivalents with fluctuating shares to an approach based on defining shares at the fishery

production area/fleet/First Nations level for a multi-year period would create greater certainty and thus more benefits.

- The results also supported the view ,among many, that defining the shares at the fishery production area/ fleet/First Nation level, or perhaps even at more discrete and local levels, was preferential to the current approach. Some options provided for a wider distribution of benefits than others. Along these lines the socio-economic analysis prompted suggestions that changes be considered further where the benefits are more evenly distributed among the groups. However, there was also variability in the participant's views on the individual Change Approaches several of which are highlighted below.
- The trollers thought that results from Change Approach 1 were consistent with their expectations for this approach while others raised concerns over the effects of the changes (some troll fleets did better economically while other fleets, particularly gillnet fleets were worse off). Some thought the analysis highlighted that simply changing the annual sockeye equivalent calculation method essentially redistributed the benefits between fleets with many other undesirable attributes of the current system remaining intact. Several participants thought the proposed price increases associated with this option were unrealistic and further that the analysis had assumed a stable allocation regime which was thought incorrect.
- Change Approaches 2 and 3 (the middle ground proposals) received the most attention by both the SCC and CSAB participants, likely reflecting the fact that these had the greatest overlap with several of the original CSAB proposals and the First Nation SCC proposal and therefore were seen by many as more credible. In general the participants thought that the S/E results might have underestimated performance in some areas. For example, the SCC thought that Change Approach 3 would provide more allocation stability, and that co-management arrangements among commercial fishery participants would be strengthened which were judged to be neutral or negative in the S/E analysis.
- Many in the CSAB thought Change Approach 2 was an improvement over the status quo, given its clarity on defining shares, but questioned a number of the assumptions used in the analysis of the option. Participants agreed that there needed to be more discussion on how to handle uncaught TAC and ESSR and whether or not ESSR should be included in the TAC. These were both important features that were handled different in Change Approach 2 and 3.
- Change Approach 4, which had the strongest economic performance according to the analysis, was questioned by a number of the participants in both the CSAB and the SCC, who thought its economic values were overstated and its social costs underestimated. Feasibility and cost of implementation were important considerations for all the Change Approaches but particularly for Change Approach 4, which had the highest costs to adopt. The Department flagged operational challenges in implementing a broad based ITQ system given the small portion of fisheries that are managed currently using a TAC and the need to create alternate management systems.

As noted above several of the parties have written separately to the consultant suggesting refinements to the draft analysis or providing perspectives on its findings.

7.5 The Socio-economic final report

After considering the perspectives and views of the participants, the analyst provided a final report July 16th. Clarifications on issues raised throughout the process were added, some assumptions were changed, and new values for some of the indicators were calculated based on modifications to the model.

The main changes are summarised below, organised along the same key categories used to summarise the comments from the participants.

- **Socio-economic analysis approach**: While sensitivity analysis was not added to the model, revised assumptions in effect provided a similar function. The main revised assumptions of relevance are: the elimination of the price increase assumption in Change Approach 1; the assumption that the increased costs to DFO would be less for Change Approach 3 than Change Approach 2; and that only 60% of the potential increase in annual catch of Fraser pink would be available under Change Approach 4.
- **Characterization of the options for change**: No changes to the description or definition of the options for change were made.
- **Assumptions and indicators:** Explanation and discussions directly addressing the comments from stakeholders on the merit of indicators and assumptions were added to the text of the consultant's report. Most of these are added as footnotes when indicators are discussed under each Change Approach. Several of these deal with the balance between the use of social and economic indicators. Additionally, several assumptions were changed as a direct result of participants comments, as already described in the "socio-economic analysis approach" paragraph above.
- **Analysis and Results:** Although the values of indicators often changed from the preliminary analysis, with few exceptions there were no changes in the direction or scale of the indicators value. The exceptions of note are:
    - The employment impacts went from modestly positive to negative under Change Approach 1; and,
    - Net income from fishing went up dramatically for the troll fleet, with area F now a clear winner, under Change Approach 3.

Although the changes described in this section provided clarity and directly answered many comments and concerns from all participants, the consultant found that none of the changes in the results of the analysis altered his overall conclusions from the preliminary report.

8. Concluding Phase 2: Comments from Participants

- Many of the participants observed that further work was necessary to develop aspects of the initial proposals or to inform and seek understanding on the changes being considered in the process to update the framework.
- The CSAB has proposed that the Department support an extended process starting in the fall of 2014 whereby the CSAB would meet to define the initial shares at the fleet and production level

consistent with the Evergreen proposal. The CSAB view is that clarity on the initial shares would assist in describing their proposal for change and set the stage for further discussions with First Nations aimed at exploring and developing common ground on changes to the commercial salmon allocation framework for adoption in the 2015 season (See Appendix I).

- First Nations have outlined the need to work with their communities informing on the deliberations that have occurred in Phases 1 and 2 and preparing for further discussions this coming fall before concluding on possible changes to the framework.

9. Key Observations

The results of Phase 2 of the initiative to update the commercial salmon allocation framework has led me to a few general observations on the engagement approach and, more specifically, on the results of the S/E analysis and possible next steps in the process:

Engagement Approach

- The overall engagement approach (for both Phases 1 and 2) has been robust and transparent and has provided for fulsome and thoughtful participation. However, some First Nations have indicated their limitations to participate in this process and have requested bilateral discussions with the Department. More broadly, First Nations have noted their views that participation in the SCC does not remove the requirement for DFO to consult with First Nations as may be appropriate. Nevertheless, this process has followed, with some modifications as noted below, the procedure outlined in the Terms of Reference for the initiative initially prepared by DFO and then subsequently amended, in part, following comments by First Nations and the CSAB on its first draft. The division of the initiative into two phases has facilitated discussions by separating the suggestions for change identified in Phase 1 from the social and economic analysis of the changes in the Phase 2.

- The engagement approach was also flexible and has been able to accommodate adjustments in the process and this has benefitted the initiative. For example, the formation of a small group of participants comprised of DFO, SCC and CSAB participants was established in Phase 2, and although not part of the initial engagement, has led to a better understanding of the proposals. This has assisted in developing some broad, but not unanimous, views on what should be changed and areas that require further discussion.

- Notwithstanding the robust engagement, the CSAB in particular would have benefited from some technical support to organize and coordinate their perspectives on change. The diversity of views and interests represented by the CSAB meant that most of the available time was spent on outlining each group's proposals, leaving less time to evaluate their implications and agree on changes supported by the group. Some capacity dedicated to pulling the various change ideas together into a single approach, perhaps a more refined Evergreen proposal, on behalf of the CSAB and then exploring the merits of consolidating views and suggestions would have further strengthened the CSAB efforts and aided the process in general.

- The engagement approach demonstrated, particularly with the small group, that a collaborative approach is an effective use of experience and knowledge and supports increased understanding and relationship building between interests. It also showed that DFO's role to provide information and support the collaborative process as a resource has merit.

9.1 Key understandings from the small group discussions

- The so-called 'middle ground' proposals, the SCC proposal and the CSAB Evergreen proposal, formed the basis for discussions of the CSAB, SCC and DFO Small Group discussions.

- The Small Group process has confirmed several views common to the SCC proposal and the CSAB's "evergreen" proposal: 1) harvest shares for First Nations and the commercial fleets (i.e. Area A-H) should be defined at the fishery and production area level; 2) share arrangements should be established for a multi-year term period, such as 5 years; 3) sockeye equivalents may be used to establish the initial allocations but otherwise would no longer be applicable; and 4) the determination of harvest shares for a relinquished commercial licence should be based on the principle that it has an equal percentage of the commercial TAC or harvest based on the total number of eligible licences in that licence area (e.g. Area A).

- It is important to note that the participants were not negotiating but rather meeting to clarify, improve understandings (including exploring differences in the proposals where these may exist) and hypothesize how certain changes would play out to meet the objectives. It is also important to observe that some aspects of the approach supported by the SCC participants in the small group process were not supported by all of the SCC delegates. For example, some First Nations support an approach that only considers active licences in determining shares for relinquished licences.

- While there was significant overlap in the broad direction for change between the SCC and CSAB proposals, important issues were identified and remain outstanding. These arose principally around the operational flexibility (methods, locations and timing) for harvesting the shares that the SCC proposal envisages. The flexibility raised numerous operational questions on how this would work in practice and how similar flexibilities could be applied in the Area A-H commercial fisheries. Although suggestions were made on how the implementation issues could be mitigated (e.g. establish reporting, compliance and population information standards) a number of concerns require more attention.

9.2 Observations from the socio-economic analysis

The S/E analysis, although generally seen as an important contributor to the overall initiative by the participants, has not resulted in a consensus for change. Questions on the descriptions of the Change Approaches, the type of indicators used and their relative importance and the assumptions applied in the analysis have been raised; opinion on these matters diverged within and between the groups. This was due in part to the fact that the Change Approaches were broad representations of potential changes and did not exactly reflect specific proposals that were made.

In spite of the issues and questions on the analysis, some conclusions can be drawn from the results of the four Change Approaches.

- Any change to the framework that increases allocation stability is expected to improve benefits and thus Change Approaches 2, 3 and 4, which provide more share certainty, perform better than Change Approach 1, which largely maintains the current share approach with a different method for calculating sockeye equivalents.

- Change Approaches 2 and 3, the middle ground approaches, had the most support, however, there were a number of concerns on how these approaches were described (i.e., not complete or inaccurate) and/or questions on the assumptions used in their analysis. Further refinements to these approaches to address ESSR, uncaught TAC and clarification on the use of all or only active licences to calculate shares for transfer would likely lead to improvements.

- Change Approach 4 is reported as having the most improved financial value but its results were disputed by many participants who thought its social impacts were underestimated and its implementation either infeasible in many of the current fishery areas or costly.

- None of the Change Approaches showed simple and consistent broad improvements across all of the indicators but it was evident that some Change Approaches benefitted few and had little support among the participants.

9.3 Areas of agreement

- There is broad support among most of the CSAB members and SCC participants for fixing shares for the commercial fleets and First Nations at the fishery production area level. It was suggested that this be done for a longer-term period (e.g. 5 years) and would allow for the elimination of an annual process to set shares. In addition, sockeye equivalents, which are used to adjust shares annually, would no longer be required, although they might be used to inform the setting of initial shares.

- First Nations and CSAB members support having flexibility to make fishery plans to harvest allocations. CSAB members indicated a preference for a 'one size doesn't fit all' approach where fleets had the flexibility to decide on preferred management approaches for harvesting their shares (e.g. competitive, individual quota, pooling arrangements, etc.). First Nations also seek flexibility to harvest shares in their communities and would likely include a mix of methods and areas depending on the community. DFO indicated that flexibility to harvest shares would need to be carefully considered to ensure conservation objectives are not compromised, compliance with shares, proper management and enforcement, and other requirements to support sustainable fisheries.

- There are several areas (e.g. ESSR, transfers of uncaught TAC, management flexibilities, etc.) that will require further discussion and SCC and CSAB members have indicated that these may be further clarified and resolved if further time is provided for discussion.

- DFO continued to emphasize Departmental considerations about operational feasibility of potential changes including potential Departmental costs, requirements for additional stock assessment information, catch monitoring for compliance with shares, enforcement, implementation costs (e.g. tracking shares, etc.).

10. Opportunities for more work

There is support for more work on updating the commercial salmon allocation framework. Although Phases 1 and 2, as outlined in the TORs, have been completed, both the CSAB and the SCC have recommended that the process be extended. The SCC wants to inform its communities on the deliberations and provide additional time for discussion on potential changes that could be considered before implementation. The CSAB has suggested that it meet this fall to define salmon shares at the commercial fleet (A to H) and fishery production area level. Both groups have noted their interest in meeting together to further explore operational issues discussed in the Small Group and consider ways that these may be mitigated and more common ground on changes found.

Although the Department must decide on the merits of prolonging this process its decision should be informed by the experience of the current approach.

First, any decision to extend should be compelling and bring about more collaboration and, as much as possible, agreement on the need for change that is both feasible to implement and has support from First Nations and the CSAB. In this context, continuing the process to further reinforce differences in proposals would serve little use. A focus on how Change Approaches 2 and 3 could be made more acceptable factoring in the work of the Small Group could be a solid basis for continuing the process.

Second, should the Department decide to continue the process it should develop a separate Terms of Reference that sets out the time line, expectations and scope of its new process. Although various parties had issues with the current TORs, it is clear that these were highly useful in guiding the discussions and focusing the work in a pragmatic and useful way.

11. Appendices

Appendix A: Terms of Reference

Appendix B: Phase 1 Report – Pam Cooley, facilitator

Appendix C: Final Report – Fraser and Associates, Socio-economic Analyst

Appendix D: Small Group, Comparison of Middle Ground Proposals, DFO

Appendix E: Small Group, Summary of the common areas of agreement, Karl English

Appendix F: Mitigating Concerns Matrix, DFO

Appendix G: Written comments re: the S/E analysis and Draft Phase 2 report: UFAWU/UNIFOR, the SCC, the ONA and LFFA, SFC, NCSFNSS and DFO.

Appendix H: Letter from CSAB to DFO

Updating the Commercial Salmon Allocation Framework
Phase 2 Report, Pamela Cooley, Choose Ethical Ventures Inc.

October, 2014

Appendices

APPENDIX A

TERMS OF REFERNCE

Fisheries and Oceans Canada – Pacific Region

Terms of Reference for Updating the Commercial Salmon Allocation Framework

July 29, 2013

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Introduction

Fisheries and Oceans Canada (DFO) is undertaking an initiative to update the current commercial salmon allocation framework. To help guide effective discussion and clearly indicate the purpose and scope of this initiative, the Department will engage with the Commercial Salmon Advisory Board (CSAB) and First Nations under this Terms of Reference.

This initiative is intended to address one element of the Mitigation Program to implement changes to the Chinook Chapter of the Pacific Salmon Treaty (PST) announced by the Department in 2010. This includes addressing the deficiencies in the current commercial salmon allocation framework that were identified by the CSAB and the Integrated Advisory Group (IAG) formed to provide advice on PST mitigation. Equally as important, this work is intended to improve the long term stability, certainty, and resilience of the commercial salmon allocation arrangements, and provide more flexibility to licence holders to make effective business decisions, and thereby better respond to uncertainty in salmon abundance and changing market conditions.

The scope of this work is on updating the commercial salmon allocation arrangements within *An Allocation Policy for Pacific Salmon (*http://www.pac.dfo-mpo.gc.ca/fm-gp/species-especes/salmon-saumon/pol/index-eng.html*).* **For the purposes of this document "commercial" refers broadly to any existing commercial and First Nations fisheries where the licence holder has been permitted to sell fish. The existing allocation priorities for First Nations food, social and ceremonial and recreational salmon fisheries will be maintained, consistent with this Allocation Policy. Outcomes from this initiative must also be consistent with key department direction. For example, conservation of wild Pacific salmon and their habitats is the highest priority in resource management decision making and any changes to the commercial salmon allocation framework will respect *Canada's Policy for Conservation of Wild Pacific Salmon* (the 'Wild Salmon Policy').**

DFO will consult with Aboriginal groups when allocation decisions may potentially affect Aboriginal fishery interests, in accordance with S. 35 of the Constitution Act (1982), relevant case law, and consistent with Departmental policies and considerations. Further, this process will not in any way define or limit any aboriginal title or rights of First Nations, and will be without prejudice to the positions of the parties with respect to Aboriginal title or rights.

Process

DFO will work with First Nations and commercial harvesters, and the Province of BC, to update the commercial salmon allocation framework by soliciting input in two phases.

In Phase 1, discussions on possible changes to the commercial salmon allocation framework will commence in the fall of 2013. The key questions (see below) are intended to better ensure that

advice given during the consultations can be used effectively to best address the challenges facing the commercial salmon fisheries now and in the future. Suggestions made for updating the commercial allocation framework will need to be consistent with the Departmental principles and objectives as outlined below. As part of Phase 1, the Department and commercial harvesters will discuss potential criteria and scope for a socio-economic analysis which will be used to help evaluate potential outcomes from changes to the current commercial salmon allocation framework. This analysis will use key criteria that are identified as guidance to frame the questions. This analysis is planned to occur over the winter of 2013/2014 and expected to take two to three months to complete.

Phase 2 is anticipated to begin in early 2014. In Phase 2, the Department will seek advice from First Nations and commercial interests on the results of the socio economic analysis and approaches to updating the commercial salmon allocation framework. It is anticipated that Phase 2 will take approximately four months to complete. Following Phase 2, the Department will consider the received advice and will make a decision on any changes to the current commercial salmon allocation framework.

Meetings for both Phase 1 and 2 are expected to take place with commercial harvesters within existing advisory processes where possible, including the commercial salmon advisory board (CSAB), the First Nations Fisheries Council Salmon Coordinating Committee (SCC) and with interested First Nations.

Discussion Questions

The Department is seeking suggestions from First Nations, commercial interests and the Province of BC for updating the commercial salmon allocation framework. Input received through this process will be considered in any final arrangements outlined by the Department. The following questions are proposed to help inform the discussions and any responses will be used to assist in evaluating suggestions for changing the current commercial salmon allocation framework.

1. What are the current deficiencies with the current commercial salmon allocation framework?
2. What elements of an updated commercial salmon allocation framework would you like to see to give you greater allocation stability, business flexibility and/or increased access to harvest opportunities?
3. What elements of an updated commercial salmon allocation framework would facilitate increased collaboration on operational harvest decisions among commercial fishery participants?
4. What current rules or barriers could or should be eliminated as part of the updating of the commercial salmon allocation framework?

5. What economic impacts do you hope to see for yourself and the fishery as a whole, from the proposed changes to the commercial salmon allocation framework? How would you like to see these impacts captured and measured in the socio-economic analysis which is planned as part of Phase 1 of this process?
6. Are the criteria provided for evaluating any suggestions put forward for updating the commercial salmon allocation framework reasonable? Are there other criteria that should be evaluated? How should the retirement of commercial licences be incorporated into an updated commercial salmon allocation framework? How should possible future licence retirements be dealt with?

Strategic Context and Management Considerations

Responses to the questions above will inform suggestions for updating the commercial salmon allocation framework. Importantly updating the commercial salmon allocation framework will occur within a broader strategic context in which there are a range of current and anticipated management considerations influencing commercial salmon harvests. The following considerations, among others, could comprise this context.

1) Biological resiliency and resource sustainability

The Wild Salmon Policy guides the Department's work to restore and maintain healthy and diverse salmon populations and their habitats for the benefit and enjoyment of the people of Canada in perpetuity. Climate change and other environmental factors are anticipated to continue to create uncertainty and will likely increase variability of salmon returns and shifts in species productivity. Future harvest opportunities will likely be focused on those species and/or stocks that are thriving and that can be harvested with little or no adverse impact on other populations. Fishing will need to be selective, able to change with changing relative abundance and could include an increased harvest in more terminal fisheries to avoid weaker sub-populations and non-target species. Over time, improved conservation outcomes resulting from these changes should have the potential to increase the available harvests.

2) Increased harvester responsibility

Consistent with the *Sustainable Fisheries Framework* (SFF) and an ecosystem-based management approach, harvesters are likely to have increasing responsibility to demonstrate that their harvests achieve ecosystem and conservation objectives. Fisheries management decisions will consider the impacts of the fishery on the target species, as well as, non-target species and the ecosystems of which these species are a part. Enhancements to current catch monitoring standards and independent verification can be expected to be a basic requirement of harvesters in many fisheries to better support achievement of sustainability and conservation objectives. Where catch targets or exploitation rate limits are in place, commercial salmon harvesters will be expected to demonstrate compliance with these.

3) Uncertain business environments

Harvesters and producers face challenges associated with the highly variable and seasonal nature of salmon fisheries, increasing global market pressures to increase the value of their product, and meeting the demand from consumers for eco-certified products. Providing greater certainty of access provides incentives for harvesters to make sound business decisions that enhance the long-term prosperity and sustainability of their enterprise, and to support conservation measures and effective fisheries management. Coupled with increasing costs of harvest and production, harvesters will need to have increased flexibility to self-adjust to changing market and/or environmental conditions.

5) Role of government

The fiscal climate will place a premium on effective cost management. The Department's role will continue to be focused on achieving core objectives, such as ensuring the conservation of Pacific salmon, promoting responsible and sustainable fisheries, and removing barriers and unnecessary rules that restrict flexibility.

6) First Nations

It is anticipated that First Nation communities will continue to seek increased flexibility to access commercial harvest opportunities to provide economic opportunities. DFO will continue to work with First Nations and commercial harvesters to develop an approach to an integrated commercial fishery based on the principles of transparency, accountability and collaboration. Several Departmental programs including the Allocation Transfer Program and Pacific Integrated Commercial Fishery Initiative provide commercial access to First Nations communities through voluntary relinquishment of existing commercial licences. The Department also seeks to manage fisheries in a manner consistent with the constitutional protection provided to Aboriginal and treaty rights under S. 35 of the Constitution Act, 1982, and consistent with relevant court decisions.

Objectives

Key departmental objectives are intended to inform consultations on updating the commercial salmon allocation framework and define their scope. The review is guided by the following departmental objectives:

1. To increase the stability of the commercial salmon allocation framework;
2. To increase flexibility of licence holders and producers to better adapt and optimize economic benefits in an uncertain business environment;
3. To improve compliance with conservation objectives;
4. To simplify and streamline rules and processes to allow commercial harvesters greater opportunities to self-adjust;
5. To improve required standards for monitoring and catch reporting so that timely and accurate information is available to decision-makers to support prosperous, sustainable fisheries;

6. To promote effective management arrangements and support open, transparent and collaborative decision making;
7. To provide clarity when costs of management are shared by those who benefit from the harvest of the resource;

Criteria

In Phase 2, the Department will use evaluation criteria to assess whether proposed suggestions for updating the commercial salmon allocation framework are likely to achieve the above-noted principles and objectives. The proposed criteria represent desirable outcomes for fisheries management, against which commercial salmon allocation framework changes can be compared and measured.

1. **Resource sustainability**
   i. Is consistent with Wild Salmon Policy objectives for maintaining healthy and diverse salmon populations;
   ii. Provides incentives for selective fishing technology and practices to be adopted where appropriate and that there are continuing improvements in harvesting gear and related practices;
   iii. Contributes to all commercial salmon fisheries adhering to selective fishing standards within set timelines;
   iv. Promotes public, market and participant confidence that the fishery is sustainable;
   v. Provides incentives for fish harvesters to work to balance the level of fishing effort with the sustainable supply of fisheries' resources to support responsible management and responsible professional harvesting;
   vi. Aids in minimizing unintended by-catch and reducing waste and adverse impacts on the freshwater and marine ecosystems and habitats to promote healthy stocks.

2. **Economic prosperity**
   i. Enables improved economic prosperity;
   ii. Enables fleets to have the capacity to assume a larger share of the cost of management of their fishery;
   iii. Increases opportunities to access small abundances, otherwise not available under current arrangements.

3. **Improved governance**

   The proposed commercial salmon allocation framework fosters:
   i. Stable and consistent operating environments;
   ii. All commercial participants fish under the same priority of access and similar rules;
   iii. Costs of management are shared by those who benefit from the harvest;
   iv. Participants are self-reliant and able to self-adjust;
   v. Allocation arrangements permit flexibility to respond more effectively to changing conservation conditions and market demands

vi. An increased role for harvesters in fishery decision-making and enhanced collaboration among First Nations, the Department and commercial interests;
vii. Fair and transparent transfers of catch shares to First Nations through voluntary means.

A commercial salmon management system consistent with the above-noted objectives, principles, and criteria can realize greater economic benefits, better support long-term sustainability of Pacific wild salmon stocks and create a more resilient commercial salmon industry which is capable of self-adjusting to changing market and environmental conditions.

APPENDIX B

PHASE 1 REPORT – P.COOLEY

Choosethical Ventures Inc

Updating the Commercial Salmon Allocation Framework

Phase One Report

January 24, 2014

Pamela Cooley

pmcooley@pamcooley.ca

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Updating the Commercial Salmon Allocation Framework – Phase One Report

Introduction

Fisheries and Oceans Canada (DFO) is undertaking an initiative to update the current Commercial Salmon Allocation Framework. The Department has engaged commercial salmon harvesters through the Commercial Salmon Advisory Board (CSAB) and First Nations through the First Nations Salmon Coordinating Committee (SCC), and the Province of BC under a Terms of Reference that outlines the scope and purpose. See Appendix A for the full Terms of Reference.

The reasons for changing the commercial allocation process are varied depending on who is speaking however there is consensus that changes need to be made. Simply put, the concerns are that the current framework does not permit long term planning and stability and does not provide the flexibility to respond to the fluctuations in salmon abundance and market conditions. In addition, many harvesters have raised other issues, separate from commercial salmon allocation framework, and often these are about the inability to harvest commercial allocations. This is a complex situation with varied interests, values and passions associated with an iconic species.

There are two phases to this engagement process. The purpose of Phase One was to gather suggestions on possible changes to the existing Commercial Salmon Allocation Framework and describe the socio-economic analysis and indicators to be used in evaluating proposed changes. Phase Two will examine the suggestions for changes and evaluate them based on objectives and criteria. The objectives and criteria are outlined in the Terms of Reference document. The socio-economic indicators to be used were suggested by the participants and others in Phase One. A third party socio-economic analyst will support Phase Two.

Following Phase Two, the Department will consider the received advice on proposals to update the Commercial Salmon Allocation Framework and will make a decision on any changes to the current Commercial Salmon Allocation Framework.

Purpose of Document

The purpose of this document is to describe the process and communicate the outcomes of “what we heard” for Phase One of the Fisheries and Oceans Canada initiative to update the current Commercial Salmon Allocation Framework. It will also describe the anticipated process for Phase Two.

The intention of this report is to provide a summary of the input received through discussions at the meetings, the online and written submissions. It will provide another way for clarifying the progress on this initiative and more broadly informing others not directly involved in the process on its perspectives and considerations. Its aim is to strengthen the engagement and further support an effective process to update the commercial salmon allocation framework.

Background

This initiative to update the current Commercial Salmon Allocation Framework is intended to address one element of the Mitigation Program to implement changes to the Chinook Chapter of the Pacific Salmon Treaty (PST) announced by the Department in 2010. This includes addressing the deficiencies in the current Commercial Salmon Allocation Framework that were identified by the CSAB and the Integrated Advisory Group (IAG) formed to provide advice on PST mitigation. Equally as important, this work is intended to improve the long term stability, certainty, and resilience of the commercial salmon allocation arrangements, and provide more flexibility to licence holders to make effective business decisions, and thereby better respond to uncertainty in salmon abundance and changing market conditions.

The scope of this work is to update the commercial salmon allocation arrangements within *An Allocation Policy for Pacific Salmon*[1]. The Commercial salmon allocation framework relates to allocations within the commercial sector (see section 4.3 of *An Allocation Policy for Pacific Salmon.* For the purposes of this process "commercial" refers broadly to any existing commercial and First Nations fisheries where the licence holder has been permitted to sell fish. The existing allocation priorities for First Nations food, social and ceremonial and recreational salmon fisheries will be maintained, consistent with this Allocation Policy.

Outcomes from this initiative must also be consistent with key department direction. For example, conservation of wild Pacific salmon and their habitats is the highest priority in resource management decision-making and any changes to the Commercial Salmon Allocation Framework will respect *Canada's Policy for Conservation of Wild Pacific Salmon* (the 'Wild Salmon Policy').

DFO will consult with Aboriginal groups when allocation decisions may potentially affect Aboriginal fishery interests, in accordance with S. 35 of the Constitution Act (1982), relevant case law, and consistent with Departmental policies and considerations. Further, this process will not in any way define or limit any aboriginal title or rights of First Nations, and will be without prejudice to the positions of the parties with respect to Aboriginal title or rights.

The Terms of Reference for Updating the Commercial Allocation Framework outlines the process, the objectives, questions to help inform the discussions, strategic contest and management considerations and evaluation criteria (see Appendix A).

[1] http://www.pac.dfo-mpo.gc.ca/fm-gp/species- especes/salmon-saumon/pol/index-eng.html

Process Design for Updating the Commercial Allocation Framework

There are two phases to this engagement process. The following is a description of the process that occurred in Phase One as well as the anticipated process for Phase Two.

Phase One

Main Objectives

1. To seek input from the interested parties if changes should be made and if so, what would be possible changes to the existing Commercial Salmon Allocation Framework and;
2. To solicit socio-economic indicators to measure outcomes of proposed changes.

There were three ways in which people could participate: meetings through representatives from each Area, responding to an online questionnaire and also in writing.

The Department sent letters (see Appendix B) in the fall to all First Nations that have had licences that permit the sale of salmon advising them of the process and opportunities for input or to request meetings.

Appendix C shows the Fishery Notices sent to all licence holders October 17 and November 7, 2013 advising them of the process with information needed to participate either through the above representatives or independently through the online questionnaire or in writing. Appendix D is the cover letter of a mail out that was sent out to all licence holders in December with the same information as the Fishery Notice, as well as a further notice sent in January extending the deadline to January 31st for input. Responses will be used to assist in evaluating suggestions for changing the current Commercial Salmon Allocation Framework.

Design of Engagement

The design of engagement process was to ask participants whether they felt changes were necessary, what outcomes they were hoping for with proposed changes and with what indicators and metrics would they use to evaluate the changes.

The meetings, online and written submissions focused on six questions posed in the Terms of Reference to help inform the discussions. Those are:

1. What are the current deficiencies with the current Commercial Salmon Allocation Framework?

2. What elements of an updated Commercial Salmon Allocation Framework would you like to see to give you greater allocation stability, business flexibility and/or increased access to harvest opportunities?

3. What elements of an updated Commercial Salmon Allocation Framework would facilitate increased collaboration on operational harvest decisions among commercial fishery participants?

4. What current rules or barriers could or should be eliminated as part of the updating of the Commercial Salmon Allocation Framework?

5. What economic impacts do you hope to see for yourself and the fishery as a whole, from the proposed changes to the Commercial Salmon Allocation Framework? How would you like to see these impacts captured and measured in the socio-economic analysis which is planned as part of Phase One of this process?

6. Are the criteria provided for evaluating any suggestions put forward for updating the Commercial Salmon Allocation Framework reasonable? Are there other criteria that should be evaluated? How should the retirement of commercial licences be incorporated into an updated Commercial Salmon Allocation Framework? How should possible future licence retirements be dealt with?

Meetings

A series of four meetings were held from September 23 to December 19, 2013 engaging representatives of the CSAB and the First Nations representatives of the Salmon Coordinating Committee. The two groups met separately for two days each. Appendix E is a schedule of the meeting dates and participants attendance. There are detailed meeting notes for each meeting. As well, DFO has communicated with First Nations bands and tribal councils and AAROM groups, and has attended specific meetings with First Nations upon request.

Online and Writing In

There was an opportunity to be involved through a web-based questionnaire and to write in directly. The Department collected submissions until January 31st. A summary report on the key issues/themes identified in responses has been produced (see Appendix F).

Current Commercial Allocation Arrangements "Status Quo" - Template

For the meeting participants to engage in suggesting changes to the current "Status Quo" framework, the Department provided a summary template outlining the main elements of the existing framework. This "Status Quo" template was used as a tool to assist meeting participants compare potential proposals containing one or more ideas for changes with arrangements under the Status Quo. This tool was used to organize all proposals made and to facilitate an open and transparent evaluation process in the second stage of the process.

Phase Two - The Next Step Evaluation

Main Objectives

With the expertise of a Socio Economic Analyst the main objectives of Phase Two are to:

1. Review the input of suggested changes to the framework received and evaluate potential outcomes against the criteria, objectives and socio economic indicators discussed in Phase One. If any suggested indicators cannot be evaluated explanations will be provided.

2. Facilitate discussion with participants on proposed changes and outcomes and to identify areas of common ground/differences. This process could lead to a refinement of existing proposals or new proposals.

3. Obtain final advice from parties on preferences for proposed changes.

Following Phase Two, the Department will consider the advice received and will make a decision on any changes to the current Commercial Salmon Allocation Framework.

Socio Economic Analyst Contracted

November 17, 2013 a “Request for Proposal” process for a Socio Economic Analyst (SEA) was undertaken and in late December “Fraser and Associates Economic Consultants” was contracted. This contractor will assist the engagement process by analyzing the suggested changes (proposals) against desired outcomes, using indicators developed based on participants input gathered in Phase 1. This analysis will create a transparent evaluation process assessing how proposed suggestions meet criteria and helping the discussions and collaboration elicit preferences for any proposed changes.

Dates for Meetings

There will be a series of 3 meetings from January through to March 2014. Dates are: January 20, 27 – 28, February 20 (CSAB), February 27-28 (FN SCC), and April 1 – 2 (FN SCC) and April 7-8 (CSAB).

Summary of Observations

The following section will provide a Summary of Observations from Phase 1. This section includes a general observation about the process, observations from the two meeting groups, the CSAB and the SCC and observations from the online and written submissions.

General Observation

What is in the Framework?

In the meetings there was considerable time spent discussing what comprised the commercial salmon allocation framework and which of its elements or components were judged deficient and required change. Consequently, it became important to clarify how the framework functioned in practice first before simplifying and outlining its key components.

The Commercial salmon allocation framework is used to define allocations within the commercial sector (see *Background*). Defining the allocations involves starting with an objective of a coast-wide commercial gear split of 22% troll, 38 % gillnet and 40% seine based on sockeye equivalents. Sockeye equivalents are the method used to convert the differing value of the five salmon species which are caught in differing proportions by the fleets into a common currency. In any given year, annual coast-wide allocations by gear type are translated into a commercial allocation plan in the salmon IFMP's that specifies allocations by species for approximately 20-25 major fishery production areas. With this understanding then the commercial salmon allocation framework can be distilled into four key components: 1) the coast wide commercial gear split; 2) the sockeye equivalents; 3) the annual adjustments to gear allocations; and, 4) the divisions of the gear allocations into fisheries (production area and species) to achieve the coast wide gear splits, Finally, relevant to what the framework comprises includes defining the allocation associated with licences relinquished from the commercial salmon fishery for transfer to First Nations and identifying the range of Fist Nations" fisheries that are part of the commercial fishery.

Importantly, however, the allocation framework does not guarantee that target allocations will be achieved in any given year. The achievement of target allocations depends on a range of factors that affect commercial fishing opportunities including conservation needs for the resource, ability to fish selectively to avoid stocks of concern, priority for First Nations food, social and ceremonial fisheries and other factors. As a result, many commercial participants view the realization of commercial allocation arrangements as inextricably linked to fisheries management approaches. While this work is focused on the commercial allocation framework itself, consideration of how proposed changes to the allocation arrangements could affect realization of allocation targets under current (or future) fishery conditions will need to be considered carefully.

Meetings

There are four sets of meeting notes from each of the groups with over 100 pages, not including the attachments. For those who want more details, it is possible to request the notes from the meetings. For this report, the notes from the meetings have been distilled into six themes; engagement, scope, deficiencies, elements of the framework, capacity and implementation, indicators for evaluation.

Summary of the Commercial Salmon Advisory Board Meetings

Engagement

1. Participation by CSAB has been active and there has been a strong commitment to the process. Those participating have worked hard to outline views, understand other perspectives and identify key concerns with the Commercial Salmon Allocation Framework and suggest potential solutions.

2. The first CSAB/DFO meeting on updating the Commercial Salmon Allocation Framework clarified the process for the initiative and largely addressed questions on membership, timelines, schedules and roles. Although new participation in the second meeting of the CSAB meant some revisiting of matters previously covered in the first meeting, largely the group was able to move on to a discussion of proposals for changing the current allocation framework.

3. By the third meeting of the CSAB the discussion was principally focused on proposal descriptions, clarifications on their intent and their fit relative to the "Status Quo" template. Groups or individuals were able to describe what the proposals would change in the template and highlight its effect on or implication for the fishery and/or its participants and as well propose how the effect might be measured. There have been approximately 13 proposals suggested for consideration with varying levels of details provided.

4. A number of commercial groups and the union have taken steps to apprise their membership on the deliberations and seek views on moving forward.

Scope of Initiative

1. During the discussions on the Commercial Salmon Allocation Framework concerns over management of fisheries are often raised and this has complicated the advice on changes to the allocation framework.

2. There is a strong view that reform of the Commercial Salmon Allocation Framework needs to include defined allocations for non-commercial harvesters, particularly the recreational fishery, whose allocation arrangements are seen as undermining effective commercial allocation arrangements, particularly troll interests.

Perspectives on Deficiencies

1. There are a number of similar views or common observations on the deficiencies of the Commercial Salmon Allocation Framework:

    a. The sockeye equivalents are generally seen as inappropriate and seen by some as unfair (displace Area H troll) or create disincentives to increase catch value (Area H, G, F and Area A and B).

    b. The coast or region wide approach to the allocation arrangements comprising the current framework is a concern by all except for one group. It is largely seen as too broad and not tied closely enough to how commercial salmon fisheries function and are managed. Views vary on what is the most suitable level for assigning shares with suggestions including basing shares on a north/south basis or something more highly resolved – i.e. shares linked to local fisheries/ production areas or individual licences). Area G states they would like status quo arrangements with an updated formula for calculating sockeye equivalents.

    c. There appears to be support for moving to longer-term allocation arrangements. Some have suggested periodically reviewing share performance and making modifications based on deviations from acceptable tolerances. This is not supported by Area G.

    d. There is strong support for valuing all commercial TAC and assigning explicit shares to any ESSR harvests to ensure that this is part of any commercial allocation.

e. Rules for the transfer of catch shares from relinquished commercial licences are seen as inadequate and inconsistently applied and reform is sought to clarify the transfer rules and apply them in a transparent, consistent and measurable manner.

f. The broad view is that clearer rules around establishing by-catch mortality are needed and there is wide support for assigning catch mortalities at least at the fleet level.

Elements of an Updated Commercial Salmon Allocation Framework

1. Several of the changes to the allocation framework propose that commercial shares be defined at various levels: North/South by Area and gear level; by Area and fishery production area; by individual licences, or possibly some combination of all three. Depending on the proposal there is flexibility to transfer catches within the gear and fishing areas or across gears within the same fishing area.

2. The proposals would assign value for all commercial harvest and allow for fishing interests to forgo harvest and allow potential catch to be harvested by other parties in more terminal locations but only if agreed through an arrangement struck by all the interests.

3. Proposals also include making improvements to the current allocation arrangements through more effective integrated processes and with specific share arrangements proposed for all salmon fishery participants, including First Nations and recreational harvesters.

4. Proposals have suggested that decisions about how shares are fished (e.g. ITQ, pool, derby) should be left to fleets to decide with no group forced to adopt ITQs if not supported by the Area Harvest Committees and/or licence holders.

5. There are strong concerns by some that the proposed share based approaches will lead inevitably to ITQs and these are seen as a form of property rights that will disenfranchise fishing interests and communities and concentrate access in limited hands.

6. The differences in perspectives are further complicated by how shares may be defined initially. Equal assignment of allowable harvest by licence holder is seen as the simplest by some, while it is regarded as unfair by others who would prefer any initial assignment of shares considering vessel catch history as an important or principal factor in the determination of the shares.

Capacity and Implementation Views

1. There is concern that no matter the changes to the Commercial Salmon Allocation Framework, DFO resources are inadequate to implement its changes. Many in the CSAB perceive that further reductions in DFO capacity puts at risk achievement of allocation goals.

2. Several members have sought further clarity on expected increased industry costs for fishery monitoring and catch reporting.

3. DFO observed that a number of the proposals were highly dependent on catch and population information which is currently not available and thus the feasibility of implementation would need to be evaluated against conservation and compliance requirements and the industry capacity to support the changes. This will be particularly

important given that DFO resources will be limited and cannot be expected to support increased costs.

Indicators for Evaluating Proposed Changes

1. The list of potential outcomes that participants suggested for assessing proposals and the measurement indicators has been largely compiled with many common indicators suggested by the various participants.

2. Participants have expressed some different perspectives on which of these indicators are more or less important in assessing an outcome.

Summary of the Salmon Coordinating Committee Meetings

Engagement

1. The efforts by the SCC to clarify how the Commercial Salmon Allocation Framework affects their interests and then provide advice and views on how the framework might change have been highly informative. The department and the SCC have been able to work well together to clarify the current commercial salmon allocation arrangements, improve understandings and document obstacles to change.

2. The first meeting was dominated by discussions on process and seeking clarity on the reporting documentation and format of minutes, membership, roles and responsibilities and clarifications what is included in the First Nations share of the commercial salmon harvest. The FN share was frequently referred to as the “bucket” or “basket” during subsequent meetings. This discussion included which First Nations fisheries and arrangements are in or out of consideration in updating the framework.

3. Identifying changes to the current Commercial Salmon Allocation Framework were affected by the relatively recent exposure to the allocation framework by a number of First Nations and the complexity of First Nations interests (marine based groups can have different interests to inland groups). Tier 1 discussions (among SCC representatives only) have been helpful in focusing attention on possible changes to the framework.

4. An important characteristic of the approach in the SCC has been the emphasis on describing preferred outcomes and identifying broad objectives being sought in First Nations’ fisheries, potential obstacles to implementation and First Nations suggestions for changes that might improve outcomes. Subsequent meetings provided for discussion on possible changes to the commercial allocation framework by using objectives outlined by the SCC (Appendix G) and led to suggestions on what elements of the framework could be proposed for change.

5. Various First Nations have underscored the point that the SCC is not consultation and does not foreclose obligations by the Department to consult bilaterally as appropriate.

6. The SCC collaborated on one comprehensive proposal for consideration.

Scope of Initiative

1. Increased access to salmon has been noted as key objective of First Nations. Although the terms of reference for updating the allocation arrangements are not focused on changing access levels it was noted that changes to the allocation framework (rules around transferring shares, uncaught commercial allocations, etc.) could have implications on access.

2. The SCC requested improved clarity on what is included in the initiative. As a result, the Department produced a FACT SHEET (Appendix H) outlining questions and answers regarding the work. Some First Nations used the SCC summary outlining their objectives and the fact sheet to update their communities on the process.

Perspectives on Deficiencies

1. Several concerns have been raised regarding the current Commercial Salmon Allocation Framework. Sockeye equivalents are seen as a hindrance and harvest shares would be better assigned on a species basis; coastal and annual allocation arrangements do not match with First Nations interests that support longer term and local share allocations; First Nations seek an enhanced decision-making role in fishery planning and, finally specifying by-catch mortality and assigning this to individual groups was suggested by several First Nations.

2. ESSR has been flagged by some First Nations (principally the Lake Babine Nation) as an important issue and they have argued that the current ESSR policy, which does not include these surplus fish as part of the commercial TAC, should continue.

3. Others have suggested that the current framework doesn't deal appropriately with uncaught fish (i.e. fish that are part of the commercial TAC but for various reasons, like conservation constraints, cannot be harvested regular commercial fisheries). Suggestions have been made that there need to be ways of defining the shares for First Nations fisheries which provide for a greater degree of certainty for marine, in-river and terminal fisheries than is possible under current arrangements, including the current ESSR policy.

4. Lower Fraser First Nations noted concerns with the current arrangements in the economic opportunity fisheries highlighting the year to year arrangements, the link between Food, Social and Ceremonial (FSC) and economic allocations in agreements and the general instability of these arrangements. They have questioned how this could be treated in a revised allocation framework.

5. The current framework makes no distinction between active and in-active licences and First Nations would base any shares on active licences only.

Elements of an Updated Commercial Salmon Allocation Framework

1. The fishery objectives proposed by the SCC helped inform a discussion on what obstacles in the commercial salmon allocation needed to be overcome to realize these objectives. This work served to indicate a number of issues with the current allocation framework and identified the necessity for additional rows in the template to accommodate missing components of the First Nations fisheries.

2. First Nations have strong views on the outcomes they seek and by association the implications on the allocation framework. The First Nations propose that their commercial shares be defined at the fishery and species level, that by-catch be specifically allocated as part of the shares and that the non-tidal fishery be a component of the commercial fishery. ESSR fisheries would be separate and continue to operate under the existing approach. First Nations would have the flexibility to decide on how best to harvest these shares and that could also include participating in existing commercial openings or more local communal arrangements and locations where that was operationally feasible and desirable.

3. An explicit share would be assigned to any transfers associated with relinquishments (possibly through the creation of a new licence category). Moreover, First Nations

fisheries would participate in access to uncaught commercial TAC as part of the commercial fleet.

4. Economic agreements would address current instability through more predictable and ongoing arrangements with clear rules on how the allocation percentage is translated into numbers of fish and allowable harvest.

Capacity and Implementation Issues

1. As in the CSAB discussions DFO flagged issues associated with operating more local fisheries with defined allocations and their feasibility given existing stock information, management and enforcement capability. The First Nations support adopting appropriate catch monitoring and compliance activities in respect of community share arrangements. However, details on how these may work, the risk tolerance and acceptable performance standards have not been explored.

2. The First Nations proposal envisions possible opportunities for First Nations commercial allocations to be accessed at a more local level with greater flexibility to manage effort to meet community interests. The Department has indicated further discussion is required here.

Indicators for Evaluation of Proposed Changes

1. A number of evaluation criteria have been identified following the discussion on proposed changes to the allocation framework and for the most part these have been standard factors noted in socio-economic analysis. Additional information on indicators used in other evaluations was also provided to the Department. Appendix I is a list of all of the indicators to date from both groups.

Proposals for Suggested Changes

Overview of Proposals

At the end of Phase One there are 15 proposals for suggested changes to the commercial salmon allocation framework prepared from the discussions with the First Nations Salmon Coordinating Committee (SCC) and the Commercial Salmon Advisory Board (CSAB).

One summary proposal was developed by the SCC (see Appendix J) and 14 emerged from the CSAB discussions. The large number of CSAB proposals reflects the diversity of interests in this group and the different perspectives for change as represented by the 3 gear types and 8 gear license areas. The SCC proposal was developed following First Nations only discussions within the SCC; it is understood that the proposal has yet to go through any approvals process that might be required by each of the First Nations.

The Appendix K is the template that describes the “raw data” of what the 15 proposals would change in the commercial salmon allocation framework. For some proposals it also outlines the implications on associated fishery measures, regulations, departmental programs and policies. The organization of the proposals using the template facilitates comparisons of the proposals and helps to simplify the changes relative to the current situation, or status quo.

The level of completeness of the proposals varies substantially. The SCC proposal is comprehensive and outlines what would be changed in the current salmon allocation framework and considers some of the implications across fishery measures and other components outlined in the template as well. The CSAB proposals show more of a variety in completeness. Several of the proposals were presented at an early stage in the discussions and the template was partially completed before attention switched to other proposals. In some instances proposals were

prepared with a specific concern in mind. For example, two proposals (Area F value added and the Rockfish allocation model) consider only how an initial licence share may be determined and fixed. Other proposals are quite comprehensive and document the proposed changes and impacts across nearly all components of the template (e.g., phased approach, Area H, Bob/Kim, Area F advisors and UFAWU/UNIFOR proposals).

Many of the proposals have broad implications and their elements will have impacts beyond just the commercial salmon allocation framework. The SCC proposal envisages a number of changes including fixing shares at the species and perhaps down to the community level and assigning by-catch mortality. The changes proposed by the CSAB proposals range from maintaining the current salmon allocation framework but with adjustments to how sockeye equivalents are calculated (e.g., Area G proposal) to more substantial changes such as fixing shares at the licence level with options to reallocate within gear types or possibly more broadly (e.g., phased approach, Full ITQ). There were also three additional proposals suggesting approaches for defining the initial allocations and on the future use of remaining PST mitigation funding.

Several of the CSAB proposals have number of elements in common and a new proposal was constructed to represent these (e.g., “Evergreen proposal”). Key elements of this proposal included fixing commercial allocations at the commercial fleet (A to H) and fishery production area level based on the 'historic' fishery in each area for an indeterminate period and an elimination of sockeye equivalents. Similar to most other CSAB proposals, fleets would retain flexibility to decide how to manage shares, including competitive, pool, quota or other fishery arrangements, at the fishery production area level. This proposal was done to help facilitate and simplify the planned socio-economic analysis of the CSAB proposals.

Others: Online and written submissions

To date there have been 45 online submissions and 40 mailed in responses.

It was clear from the submissions that there is merit in implementing change as all submissions described problems experienced in reaching target allocations. However, most suggestions for change were focussed on changes to the fisheries management approaches rather than the Salmon Allocation Framework itself (see the above explanation “What is in the framework?”) The suggested changes for the elements of the framework are covered in the CSAB or the SCC proposals for evaluation. Consideration of how proposed changes to the fisheries management approaches could affect realization of allocation targets under current (or future) fishery conditions will need to be considered carefully. (See Appendix E for a summary report of additional submissions.)

Key Findings for Phase Two

1. The views and perspectives from the meetings, the submissions online and the mailed in responses to date underscores the complexity of the Commercial Salmon Allocation Framework and its challenges for renewal. A number of factors have been raised including allocations for recreational fishery participants, fisheries management approaches for stocks of concern, uncertain future production of salmon, etc. that could affect the future achievement of any commercial allocations. As a result, many participants have sought to increase the scope of the work to address broader issues that are viewed as also affecting commercial allocation arrangements. However, the Department has indicated that the process is clearly focused on commercial salmon allocation arrangements and that adding issues outside the scope of the initiative could prevent or substantially delay any potential changes.

2. In spite of the differences among aspects of the various proposals there is much agreement: most participants want to change the existing framework and replace

sockeye equivalents, coastal allocation arrangements and annual adjustments with more suitable arrangements. Thus, it seems possible to find broad support for at least some changes to the framework notwithstanding other changes in which strong agreement may not be attainable.

3. Suggested changes to the Coastal arrangements have varied. The following list identifies different levels that have been suggested for re-defining commercial allocations

    a. Coast wide
    b. Separate allocations for fleets in the North vs. South
    c. Fishery Production Area by species and fleet
    d. Individual licences – by species…
    e. First Nations – by species and fishery area and, possibly, into local areas/community shares

4. A successful evaluation of the proposed changes will require consideration of a reasonable number of proposals, objectives and indicators. At this point in time there are unfinished proposals that need to be completed or refined or eliminated. There are objectives from all parties that need to be reviewed and consolidated. As well there is a list of indicators that are in “raw data” form. This list needs to be reviewed, defined and grouped to a reasonable number. There also needs to be a process to eliminate those that are irrelevant or non-measureable.

5. In several instances changes to the framework that have been proposed so far have led to discussion of operational or technical issues that would need to be addressed to implement a proposed approach (e.g. what stock assessment information is required to manage the fishery? Including information on stocks of concern or to established TACs; are there adequate resources to monitor compliance with allocations; and so on) that raises issues on the readiness of DFO and fishery participants to implement the changes regardless of their support. During Phase 1 discussions, the Department encouraged proposals but as the process continues into Phase 2 increased attention will need to be paid to assessing the feasibility of implementation.

6. In considering broader changes to the framework it will be important to keep in mind the pressing realities that are facing the salmon fisheries. In particular, the Department has indicated that outcomes must be consistent with Department objectives in the Terms of Reference and will also need to consider the funding capacity of DFO to support new costs.

7. The final point addresses the remaining process. The sense from the first phase of meetings is the two groups are working through the process, albeit from different perspectives, and that the approach of discussing the proposals and comparing these against the Status Quo arrangements using the template seems effective. This process needs to be completed and all proposals finalized using the template, with the changes described and the effect and measurement factors discussed. Further, opportunities must be sought where First Nations and CSAB can share views and clarify understandings, and ideally, find common ground on changes. One meeting was held between a small group of First Nations SCC and CSAB representatives to discuss common interests and proposed changes and a further meeting is planned. These meetings should continue to support understanding of common interests and areas of mutual support. Any proposals that increase the likelihood that these will be supported by both First Nations and commercial interests are obvious options to explore in more depth.

Appendices

A. Terms of Reference
B. First Nations Letter
C. Fishery Notices
D. Letter to Commercial Salmon Licence Holders
E. Schedule Attendance
F. Summary of Additional Submissions
G. SCC Summary of Objectives
H. DFO Fact Sheet
I. List of Indicators
J. FN SCC Proposal Summary provided by SCC

Technical Appendix

Template Summary of Proposals (including CSAB's Evergreen proposal)

APPENDIX C

FINAL REPORT – FRASER AND ASSOCIATES

The Socio-Economic Implications of Suggested Approaches for Updating the Commercial Salmon Allocation Framework

June 2014

FINAL REPORT

Preface

Although the author has benefitted from detailed comments from members of the Commercial Salmon Advisory Board and First Nations representatives on the Salmon Co-ordinating Committee as well as comments and extensive assistance from Fisheries and Oceans Canada personnel, sole responsibility for the analysis and conclusions rests with the author.

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Executive Summary

As part of the mitigation program related to recent changes in the Canada-US Pacific Salmon Treaty, DFO has been working with First Nations, commercial harvesters to update the present "Commercial Salmon Allocation Framework". Discussions between the various parties have focussed on the perceived deficiencies of the present framework, the desired outcomes to be achieved through updating the framework, how performance of possible changes should be measured with respect to these identified outcomes and finally on developing specific proposals for change to the allocation framework.

To assist in further discussion between the parties, this report provides a socio-economic evaluation of various proposals for change suggested by the parties. Specifically it looks at four general approaches to changing the commercial salmon allocation framework. Each of these four general approaches reflects either a specific proposal tabled by an individual participant in the discussions or includes elements of a range of similar proposals received from the participants. Each approach has been designed to highlight significant differences of view between the parties on a range of issues (such as what should be shared; to whom should shares apply; should shares be transferable). The first approach reflects the most modest change to the present allocation framework proposed by the participants in the discussions. Subsequent approaches reflect more substantive change to the allocation framework. Change approach 4 reflects the most extensive change to the allocation framework proposed by the participants.

Each approach is assessed in relation to the many objectives for change identified by the parties in their discussions. In order to facilitate analysis these various objectives have been synthesised into seven overarching or umbrella objectives most of which are common to all of the different interest groups and are generally coincident with the stated objectives of government. These objectives are:

1. **Greater Certainty of access to salmon resources;**
2. **Increased Economic/Financial Benefits from fishing;**
3. **Increased Social Values from fishing;**
4. **Improved Financial and Social Viability for the fishery;**
5. **Improved Clarity and Fairness when allocations are transferred;**
6. **Improved Governance of the fishery;**
7. **Improved Resource Sustainability.**

The performance of each approach in relation to these objectives is measured through its projected impacts on a variety of specific considerations deemed important by the participants. In consultation with the participants in the discussions eighteen specific "key" indicators were selected for measurement from more than 100 individual indicators suggested by First Nations and commercial fishers.

The evaluation indicates that there is no perfect solution to the allocation policy change issue but it does illustrate that certain approaches are better than others.

Two of the change approaches analysed (Approaches 1 and 3) primarily impact distribution of harvest and harvest values between the various fleets and social groups in the fishery. Some fleets or some

social groups may gain substantially under these proposals but others may lose substantially under these particular approaches. In addition, these change approaches may make at best modest contributions to a range of the objectives identified such as improved clarity and fairness in the system or improved governance of the fishery.

The other two change approaches analysed (Approaches 2 and 4) show considerably greater promise. Both approaches indicate a potential for some improved harvest and harvest values that are distributed fairly broadly between the various fleets and social groups in the fishery. In terms of economic and financial values and financial and social viability of the fishery, approach 4 appears substantially better but in terms of increased social values approach 2 has more to recommend itself.

The decision on which is the best approach to updating the commercial allocation framework is ultimately a judgement based upon discussions among the parties on their individual priorities. It is hoped that this report will assist in their ongoing attempts to find a mutually beneficial common ground.

Introduction:

In October 1999, after extensive consultation with different harvesting interests in the salmon fishery, the Department of Fisheries and Oceans (DFO) publicly released "An Allocation Policy for Pacific Salmon". This policy contains seven overarching principles. The first baseline principle confirms the overall priority of resource conservation. The second and subsequent principles establish, after conservation needs are met, a number of priorities with respect to the sharing of harvestable surpluses between different harvesting groups in the fishery. Most notably, principle two provides that First Nations' food, social and ceremonial requirements and treaty obligations have a first priority in salmon allocation. The final three principles deal specifically with sharing arrangements for the commercial harvest between the three long established fishing fleets within the commercial sector.[1]

For the last fourteen years, these final three principles' have been used by fisheries managers in the development of annual commercial fishing plans. Numerous issues and concerns with these allocation arrangements have been raised by commercial stakeholders over the years.

In December 2008, a number of changes to the Canada-US Pacific Salmon Treaty were ratified. These changes called for significant reductions in the harvest of Chinook salmon in mixed stock fisheries off Canada's west coast. To address this issue, DFO convened an advisory group including representatives of First Nations and commercial stakeholders to provide advice on an appropriate program to mitigate for these reduced harvests. Following the advice received, it was determined that one element of this mitigation program would be the development of an updated "Commercial Salmon Allocation Framework".

In order to update the commercial salmon allocation framework DFO has been working with First Nations and commercial harvesters through an extensive discussion process guided by a terms of reference provided by DFO.[2] To date, numerous meetings have been held separately with the Commercial Salmon Advisory Board (that includes representatives from all of the commercial gear and area licensed fleets in the fishery, the United Fishermen and Allied Workers Union, the Native Brotherhood of BC and processors) and the First Nations Fishery Council Salmon Coordinating Committee (that has included First Nations delegates from thirteen geographic areas covering a wide range of coastal and interior First Nations). DFO's formal terms of reference for these discussions included six detailed questions relating to the perceived deficiencies of the present commercial allocation framework, the specific changes proposed and the goals and objectives of the suggested changes to the allocation framework.

To assist in further discussion between the parties, a socio-economic evaluation of the various proposals for change is also called for in the process terms of reference. This report provides that socio-economic assessment.

[1] "An Allocation Policy for Pacific Salmon"- Fisheries and Oceans Canada, October 1999.
[2] The Province of British Columbia was also invited to participate but has maintained only a watching brief on discussions.

The organisation of the report is as follows. First, after a brief description of the current allocation framework and its deficiencies, on the basis of the discussions to date the objectives of the parties with respect to allocation policy change are summarized. Second, key indicators to be used in measuring the performance of proposed changes are introduced. Third, the various changes to the allocation framework proposed by the participants are discussed and organized to facilitate evaluation. Subsequent sections of the report lead the reader through the evaluation of four different approaches to changing the commercial allocation policy framework. Each of these change approaches represents a specific proposal by participants in discussions or an amalgamation of several proposals made by the participants. Finally, some summary comments are provided on the relative performance of each approach in relation to the objectives of the parties.

The Current Allocation Framework:

In the broadest sense, the present commercial allocation framework is intended to recognize the importance of all three of the established commercial salmon fleets and provide some assurance that fishery management decisions will not displace one or the other gear type in the fishery. Each year fixed target shares of the commercial value of the catch coast-wide (40% seine, 38% gillnet and 22% troll) guide the development of planned gear and geographic licence area allocations by species in consultation with commercial advisors from all gear groups. During the fishing season managers make best efforts to ensure that each area fleet receives access to and is allowed to harvest these planned allocations. However, fisheries managers need to respond to a range of factors including the conservation needs of stocks of concern and unexpectedly low as well as unexpectedly high returns of the different species and individual runs. In addition, there are a number of complexities added with current DFO management policies (for example, no access is provided to Fraser River sockeye on the north coast).

In some cases, the planned allocations cannot be harvested for conservation reasons because pre-season forecast harvests are not realized or other management constraints are in place. Sometimes managers need to shift allocations from one area to another to permit harvesting and in these circumstances a general preference is given to the same gear type in the new area in order to maintain the coast-wide targets. However, in many cases this is not feasible. As a result, coast-wide target allocations and planned allocations on a gear and area basis are frequently not achieved.

Identified Deficiencies

Many issues, concerns and frustrations regarding the present management of the commercial salmon fishery have been raised in the discussions with First Nations and the CSAB on the commercial salmon allocation framework. These include declining harvests partly due to management responses to weak stock concerns and DFO budget constraints and their impact on stock assessment and timely

management decision making. Both First Nations and commercial fishers are also concerned about the negative impacts on the commercial harvest of a priority to fisheries directed on Chinook salmon that is provided to the recreational fishery under current policy. While these concerns are acknowledged, strictly speaking they are outside what comprises the salmon allocation framework within the commercial sector. For the purposes of this analysis, the deficiencies outlined below relate solely to the "commercial" allocation framework and the specific concerns that have been raised by the various interests.

The first key identified deficiency with the commercial allocation framework is that it does not reflect the present organization of the fishery. Since the 1990's the operation of each gear type has been sub-divided by area of the coast. The seine fleet is divided between north and south (Areas A and B), the gillnet fleet has been divided between the north coast, south coast and the Fraser River (Areas C, D and E) and the troll fleet has been divided between north coast, west coast of Vancouver Island and south coast inside (Areas F, G and H). Although the policy provides target shares by gear type coast-wide, no specific target shares are provided for the different fleets in each licence area. The coast-wide allocations provide some certainty that each gear will receive some fish, but no explicit share is identified for each of the different licence area fleets within the fishery. Different sharing arrangements for fleets in different areas of the coast and changing sharing arrangements from year to year and over periods of years are in keeping with the present policy. The resulting uncertainties created for fishers are of concern.

A second identified deficiency with the present framework is a tendency to penalize fishers that have successfully added market value to their harvest relative to others that have not. Under the present sharing system, the market values of the five species of salmon are updated annually. As a result, if the price of the fish harvested in some fisheries have increased relative to others over time the actual quantity of fish represented by a harvest share can decline. For example, the value of Chinook salmon has more than doubled relative to sockeye over the last twenty years. This has effectively reduced the quantity of fish in the target catch share when the catch is dominated by Chinook salmon. This has been of particular concern to Area F and Area G troll fleets that are both highly dependent on Chinook salmon. They believe that the present allocation framework penalizes successful ongoing efforts to increase the value of their catch.

A third identified deficiency raised by some fishers with the present framework is that it does not adequately deal with any foregone allocations. In many cases, although the target species may be available, because of weaker co-migrating stocks or species of concern the exploitation rates for target stocks may be reduced. As a consequence, the fishery may not be opened or it may be severely constrained. In short, the allocation may become a "paper" rather than a real allocation. In some cases, the planned harvest may be taken by another fleet in another area of the coast and in other cases it may result in Excess Salmon to Spawning Requirements (ESSR) fisheries in fresh water[3], but in neither circumstance are there provisions within the present policy that requires the permission of or

[3] Under present policy priority access is provided to First Nations to harvest ESSR fish.

compensation to the adversely impacted parties. This is of considerable concern to many fishers as they perceive that their agreed upon catch shares are being unilaterally transferred to others.

A fourth identified deficiency with the present framework is that these explicit coast-wide sharing arrangements focus only on established commercial gear types and established fisheries. There are no explicit provisions within the system to facilitate shifts and changes over time in the places or the way that fish is caught. Although attempts have been made to address this deficiency in providing for new First Nations treaty and inland economic opportunity fisheries through the voluntary relinquishment and re-allocation of commercial licences, the present procedures around transfers of catch shares are seen as unclear and inconsistently applied. These present procedures are generally unsatisfactory to all parties.

Objectives of Change:

The general objective of the proposed changes to the allocation framework is obviously to address and fix the identified deficiencies discussed above. However, underlying this general objective, a large number of more specific objectives have been identified by the parties in the discussions. The Department explicitly identified seven key objectives in its terms of reference for the process. In addition, First Nations and other commercial fishers provided at least 38 separate statements that reflect a wide range of desired outcomes and interests in allocation change.

Many of these appear to be similar although stated in various different ways. Also, many of them overlap between commercial fishers in different fleets and between commercial fishers and First Nations. Many are also coincident with the stated objectives of government. This is not to say that the individual item of interest may be the same for each group. While the objective may be the same, First Nations are clearly focussed on specific impacts on First Nations fisheries while commercial fishers are clearly focussed on the performance of their particular fleet. These distinctions are addressed through detailed break downs of data provided in the socio-economic analysis.

Based on the discussions to date, a set of seven overarching or umbrella objectives for allocation policy change were synthesized and used in this socio-economic analysis. Most of these are common to all of the different interests although their relative importance to different interests varies; some are of primary concern to one interest group or the other. It is believed that taken together these objectives cover all of the interests and desired outcomes reflected in the discussions to date. It should be emphasized that the particular ordering of objectives does not in any way reflect relative importance.

Objective 1: Greater Certainty of access to salmon resources.

The nature of salmon biology does not lend itself well to the provision of certainty. The abundance of the different species, the individual runs of species and the overall resource varies widely from year to

year and from cycle to cycle. The harvestable surpluses that are available from year to year are highly uncertain. All commercial fishers and First Nations understand and accept this. At the same time because of this unavoidable uncertainty, there is a keen desire by all participants to eliminate as far as possible any uncertainties that can be avoided.

This common objective of all parties is sometimes expressed as a desire for greater "stability" of access to the harvestable surpluses that are available including increased opportunities to access small abundances of fish. In other cases it is expressed as a desire for longer term agreements over access to the resource rather than the present annual system of adjustments to sharing arrangements. The key common theme is greater security around all parties' opportunities to access their share of the social and economic benefits from the salmon resources.

Objective 2: Increased Economic/Financial Benefits from fishing.

The commercial salmon fishery in recent years has suffered tremendously from an economic and financial perspective. Declines in salmon abundance, falling prices for commercial salmon products and the introduction of new management approaches aimed at better preserving the genetic diversity of salmon have all dramatically impacted the profitability and the viability of commercial salmon fishing. Although government has attempted to address these issues through the implementation of extensive and expensive licence retirement programs that have more than halved the fishing fleet from its historic levels, present average returns from commercial salmon fishing are a fraction of what they were in the 1990's and earlier. All parties in the allocation discussions are anxious to address this problem.

This common objective of the parties is usually expressed as higher landed values, profits or income for all participants in the fishery (working fishermen including vessel owners, skippers and crew) and sometimes expressed as a desire for improved values of the assets used in fishing including fishing vessels and licences. The key common theme is more dollars from fishing for all participants in the salmon fishery.

Objective 3: Increased Social Values from fishing.

The social values from salmon fishing are stressed by both commercial fishers and First Nations. These include broad based impacts resulting from the spin offs from salmon fishing on smaller coastal communities that have few alternative sources of employment. For example, salmon fishing generates employment in processing, support and service industries. This associated employment in conjunction with direct employment in salmon fishing helps to create healthy and sustainable communities with an improved quality of life for the residents.

First Nations stress an even broader set of cultural impacts. Salmon fishing was and continues to be an activity that is central to the culture of First Nations on the coast and well up into the interior of the province. Engagement in culturally meaningful livelihoods engenders increased self sufficiency and improved diets resulting from improved access to traditional foods. All of this has direct effects on both physical and mental health in First Nations communities. In addition, access to salmon fishing by

younger family members helps to transmit cultural knowledge, traditions and values to the next generation and stimulates pride, self-confidence and cultural continuity.[4]

This objective of the parties is frequently expressed as increased employment and participation in the fishery and related activities and sometimes as a wide range of increased other benefits to quality of life from fishing. However, the key common theme is a better and broader distribution of both financial and other benefits from fishing among all of the working fishers in the fishery and others in their communities.

Objective 4: Improved Financial and Social Viability for the fishery

Some key aspects associated with the current commercial salmon fishery are a lack of new entrants, difficulty finding crew and an aging work force. The fishery has become increasingly dependent on government support including employment insurance and other benefit programs. There is concern that the ownership structure is increasingly moving away from independent fishers (because of lack of access to capital and reduced ability to borrow) towards corporate ownership and control of the fishing fleet. While the fleet is adaptable to changing circumstances in some sense, the overall effect seems to be the maintenance of poor returns. When harvests and prices are poor, fewer vessels and operators participate in fishing. When harvests or prices increase, more vessels and operators participate. As a result, better than average harvests and prices often result in continuing poor returns to individual fishers. The fishery appears to be unsustainable in its present form.

This objective of improved financial and social viability for the fishery is sometimes expressed as a desire for improved financial independence for the fishery and sometimes as better access to capital and to human resources such as experienced crew. However, the key common theme is a more self-sustaining fishery regardless of catch levels and market prices.

Objective 5: Improved Clarity and Fairness when allocations are transferred

A consistent complaint with the present allocation system is that shares of the harvest are frequently transferred from one group to another without transparency. For in-season conservation or policy reasons the Department sometimes needs to limit harvesting by some groups and subsequently permit increased harvesting by others. In effect, this transfers harvest from one to the other fishing group without any consultation or compensation to the adversely affected parties. In addition, shares of the commercial TACC are transferred from the three established gear types to provide economic opportunities to First Nations through the vehicle of licence relinquishment. The present procedures assign a share of the harvest to each of the licences held in an inventory of relinquished licences within the Department's Aboriginal Transfer (ATP) and Pacific Integrated Commercial Fisheries Initiative (PICFI) programs. The shares assigned to these licences and their distribution to First Nations is exceedingly

[4] For a comprehensive review of the social and cultural importance fishing to one First Nations community, see: "Towards a Brighter Fishing Future" - Anne Merritt - School of Community and Regional Planning, University of BC (Report Submitted to the Nuu-chah-nulth Tribal Council)

complex. Commercial fishers and First Nations are both uncomfortable with and question the fairness of present procedures.

This objective is sometimes expressed as fair access to or benefits from allocations and sometimes as the ability to follow fish to catch their TACC. However, the key common theme is the need for consistency and fairness before and when fish is moved in the allocation system.

Objective 6: Improved Governance of the fishery

Present management and planning in the fishery tends towards confrontation and dispute between the parties and with the Department rather than cooperation and collaboration. Reaching agreements with First Nations is often contentious and even when agreements are reached they are frequently weakly endorsed. There are perceptions by commercial fishers and First Nations of a lack of openness and transparency from the Department and a lack of willingness to delegate or at least share decision-making with the parties. At the same time, the Department is frequently frustrated by lack of consensus between the parties on ways to proceed. In many cases the Department is effectively forced to make decisions that largely satisfy none of the different interests. Improvements to this present situation are strongly supported by all of the parties.

This objective is sometimes expressed as a desire for more streamlined rules and processes and more collaborative decision-making. For First Nations the objective is expressed as better support for First Nations governance and joint management of their fisheries. A key aspect of importance to First Nations is an improved ability for First Nations to each independently design their fisheries to access their share and achieve their own social and economic priorities.

Objective 7: Improved Resource Sustainability

It is recognized by all of the participants in discussions that a healthy and sustainable salmon resource is the under pinning for achieving any benefits from fishing. This objective is expressed as a desire for more timely and accurate information to decision-makers on harvesting operations and catch and improved compliance with conservation objectives.

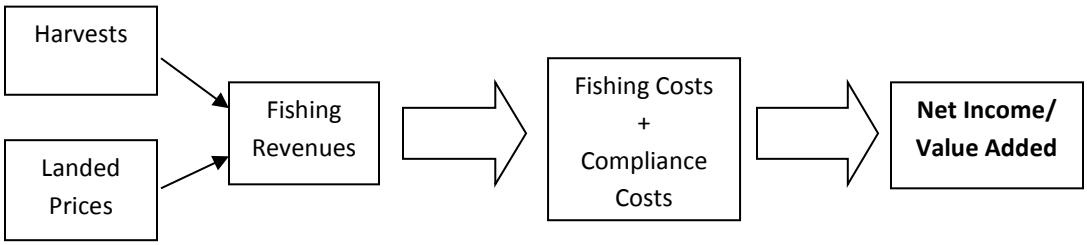
Performance Indicators

First Nations and commercial fishers have suggested more than 100 individual indicators that they believe would help to measure the performance of proposed changes in delivering on their identified objectives.

The purpose of socio-economic analysis is to assist in decision-making. To do this, considerable caution should be exercised in the number of indicators used in the analysis. Too many indicators under one or the other objective can cause confusion, make judgements difficult and actually undermine effective decision-making. There are some useful ways of economizing on the number of indicators without losing key aspects of importance to the analysis.

First, some of the proposed indicators are clearly linked to one another and there is often one that reflects a more useful bottom line "direct" measure of performance in relation to an objective. For example, in terms of the economic and financial performance of the fishery seven individual indicators have been proposed including: harvests, landed prices, fishing revenues, fishing costs, compliance costs, net income and value added. **Fishing revenues** are necessarily **derived from** the anticipated **harvests and** landed **prices** in the fishery. **Net income** or **value added** from fishing is necessarily **derived from fishing revenues and** anticipated **fishing costs** and **compliance costs** in the fishery.

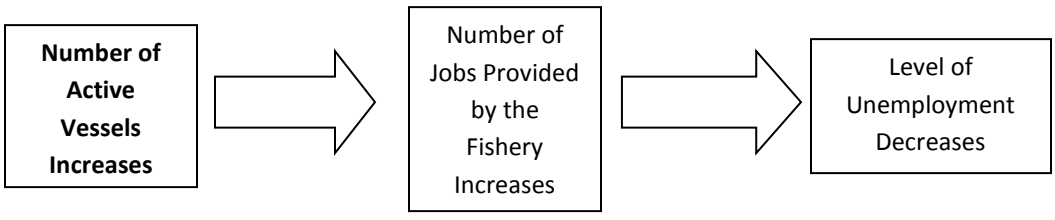
Figure 1: Linkages between Some Proposed Financial and Economic Indicators



In short, **change in net income** or value added from fishing is a single **direct indicator** of performance that balances and accounts for possibly competing changes in a number of proposed indirect performance indicators. Although information and assumptions relating to the other indicators could and should be provided in text, for the purpose of decision-making it may be relevant to focus on the single net income indicator.

Second, many of the proposed indicators are correlated (i.e. they can be expected to move together). For example, some proposed indicators include changes in the number of active fishing vessels, changes in the number of jobs provided by the fishery, changes in the level of unemployment and so on. There is clearly a direct relationship between the number of active vessels and the number of jobs provided in the fishery. Similarly, the level of unemployment can be expected to be directly related to the number of jobs provided in the fishery. In these cases, changes in one single indicator rather than multiple indicators may be adequate to reflect changes in all aspects of importance.

Figure 2: Linkages between Some Proposed Employment Indicators



In selecting the single indicator in these cases consideration should be given to the availability of data and the difficulties associated with developing realistic projections. For example, estimating any projected change in the number of active fishing vessels or the number of jobs provided by the fishery may be relatively straightforward. However, estimating any change in the level of unemployment may

be exceedingly difficult involving consideration of current and projected future unemployment rates and the probabilities of hiring unemployed individuals. This would argue in favour of using a single key indicator related to change in the number of active vessels and/or number of jobs provided by the fishery in order to reflect changes in the three aspects of importance including change in the level of unemployment.

Third, some proposed indicators may not be quantifiable in any meaningful sense (e.g. more ownership of fishing plans). Some of these may be subject to rating on a "defined impact scale" such as high/medium/low, negative/neutral/positive or even a simple yes or no. However, with some there may be no realistic way to determine how the indicator may change with an updated allocation framework. In these latter cases inclusion of the indicator will provide little to the analysis.

Finally, in some cases there may be no logical reason to believe that the indicator will change under any of the proposed allocation policy changes. In these cases the inclusion of the indicator will again provide little to the analysis.

A set of eighteen "key" indicators have been selected for use in this socio-economic impact assessment after discussion with the participants. These key indicators are detailed below under each of overarching objectives discussed above. It is emphasised that these indicators do not ignore or minimize the importance of the more than 100 factors identified as important by the participants but facilitate their proper consideration in a more practical and organized way. The indicators should all be seen as guideposts to a wide range of impacts that are considered important.[5]

Objective 1: Greater Certainty of Access to Fish Resources

Three indicators have been selected under this objective, two using a defined impact scale and one a numeric scale:

1. **Duration of allocation agreement (annual/multi-year/permanent)** [6]
2. **Includes an explicit allocation for First Nations? (Yes/No)**

[5] This is a point that has been missed by some reviewers of a preliminary draft of this analysis. For example, one commentator offered the view that the analysis is overly narrow by focussing on employment changes as a measure of the social impacts of allocation policy change. The reviewer asserts that this ignores important social indicators such as community well being and resilience, lifestyles, relationships and so on. It is stressed that the use of employment as a key indicator of social impacts is not intended to ignore these things. It is simply asserted that community well being and resilience, improved lifestyles, relationships and so on are directly correlated with/linked to and reflected by employment changes.

[6] Virtually all of the participants in the discussions appear to agree that a longer duration for any allocation agreement is a key element in providing increased certainty in the fishery. However, the validity of duration of the allocation agreement as an indicator of improved certainty has been questioned by one reviewer. This reviewer argues that permanent allocations will "almost inevitably lead to discord over time by entrenching a particular set of values and power relations". This view mistakenly assumes that a long term allocation agreement will fix the specific allocations in stone permanently. In fact, all of the proposed changes to the allocation system recognize the need for rules and procedures to re-allocate between sectors and groups in the fishery over time. A distinction needs to be made between an allocation system (which will add certainty by being longer term or permanent) and the allocations (which may still change over the duration of any agreement according to agreed upon rules).

3. **Projected change in the TACC harvested with breakdown by fleet/FN. (%)**[7]

The duration of the allocation agreement is a key factor in providing certainty of access in the fishery. The present practice of annual adjustment to the sharing arrangements in different fishing areas and for different area licensed fleets is a significant issue. Also, the current arrangements do not provide for an explicit allocation to First Nations before the commencement of fishing and when allocations are provided in-season, they are provided only for the current season. All of this undermines the ability of the fishing fleets and First Nations to plan longer term. In addition, the proportion of the TACC actually harvested can fall significantly below the available TACC for a variety of conservation or policy reasons in any given year. The extent to which proposed policy changes can address this issue would significantly address present uncertainties in the fishery.

Objective 2: Increased Economic/Financial Benefits from Fishing

Three indicators have been selected under this objective, two using a numeric scale and one a defined impact scale:

1. **Estimated change in total net income (value added) by fishery (licence area fleet and First Nations)**
2. **Estimated change in wage income from fishing by social group (crew, operator, vessel owner) and the income of working/non-working fishers (active/inactive vessels)**
3. **Likelihood of increased management costs to DFO for stock assessment and/or fisheries enforcement(unlikely/neutral/likely)**

Many of the indicators that were proposed by the participants in this area tend to move in the same way (e.g. pieces of salmon harvested and sockeye equivalent values). Many are also related to one another (e.g. landed value, fishing and compliance costs and net income from fishing). A single net income or value added from fishing indicator can weigh and balance the relative performance of allocation policy change in all of these areas. Also, impacts on the wages of both crews and skippers are a key issue. As a result a single total net income figure will be inadequate. To meet the needs of the participants in the discussions impacts need to be broken out by individual licence area fleet and between the fleets and First Nations. Breakdowns of net income by fishery and wage income by different social groups in the fishery will also be required.

A final area that needs to be considered is potential impacts on government costs. Some allocation policy change proposals may demand greater stock assessment, increased enforcement or other activities by the Department. Unfortunately, at this time no specific estimates of increased costs are available for the various allocation change options. The potential for increased Departmental costs will be rated on a defined impact scale.

[7] The credibility of this indicator has been questioned by one reviewer of an early draft of this analysis. They argue that access to the TACC is established by harvest rules and access decreases and increases according to a number of factors un-related to the allocation plan. While this is certainly true, certain allocation systems may improve access to the TACC regardless of these other un-related factors. For example, if the proposed allocation system can facilitate smaller fishing fleets and lower levels of fishing effort under low abundance scenarios, then improved access to the TACC can be realized.

Objective 3: Increased Social Benefits from Fishing

Three indicators have been selected under this objective, two using a numeric scale and one a defined impact scale:

1. **Estimated change in the number of fishers by fishery (licence area and First Nations) and by social group (crew, operators)**
2. **Estimated change in average days fishing per vessel (licence area fleet)**
3. **Assessment of improvements to safety of the fishery (positive/negative/neutral)**

The social benefits from fishing identified in discussions cover a wide range of quality of life factors. Most of these are directly related to the level of employment in the fishery although distribution of employment geographically (urban/non-urban) and between fleets and social groups are key concerns that have been raised. A change in employment indicator may be adequate to capture most of these considerations if appropriately broken out by area fleet and social group (i.e. First Nations, crew, operator etc.). It is stressed that many other social impacts are anticipated to flow from the employment effects. For example, indirect ("ripple") or multiplier effects on communities can be anticipated to result from the direct employment impacts. [8] Also, cultural benefits in First Nations communities seem largely driven by participation in the fishery.

Potential impacts on safety in the fishery are another social issue identified. It is unlikely that reasonable estimates of changes in the number of vessel incidents and lost days of employment could be easily provided. However, a qualitative assessment on a defined impact scale of whether safety may or may not improve under alternative change proposals will be provided.

Objective 4: Improved Financial and Social Viability for the fishery

Two indicators have been selected under this objective, both using a numeric scale:

1. **Change in average net income per vessel by fishery.**
2. **Change in average income by social group (crew and operators) and working versus non-working fishers (active/inactive vessels)**

The objective of improved financial and social viability for the fishery relates to the ability of the fishery to be self-sustaining into the future. Impacts in this area seem most directly related to the level of average incomes in the fishery. For example, improved average net incomes by vessel and wage income

[8] It has been suggested by one reviewer that Statistics Canada or BC Statistics input-output models could be used to explicitly estimate indirect and induced ripple effects on support industries throughout the economy. The point of this analysis is to compare different approaches to changing the present allocation framework. In reality the use of input-output tables to estimate broader impacts would add little to the analysis and would not change any conclusions with respect to the relative performance of different approaches. Input-output tables provide an estimate of the relationships and linkages between different sectors of the economy based upon a snapshot at a point in time. In effect, using the most recent available input-output tables involves applying the same multipliers to the impacts presently identified under each allocation change approach. This does nothing more than inflate the impacts of the proposed change approaches by an equivalent proportion. This may be more elegant but effectively changes nothing in the relative ranking of the different approaches.

by crew and skippers would likely increase licence values in the fishery and the ability of independent fishers to borrow funds. It would also likely have positive impacts on the number of people wishing to go fishing (as crew or to purchase vessels and licences in the fishery). This could change the future distribution of licences between owner/operators and corporate interests in the fishery. Increased average incomes and higher participation rates in the fishery may also have positive effects on maintaining the support industries and the communities that depend on the fishery.

Objective 5: Improved Clarity and Fairness when allocations are transferred

Two indicators have been selected under this objective, both using a defined impact scale:

1. **Are allocation arrangements clear (yes/no)**
2. **Are the transferability provisions clear (yes/no)**

It may be possible to provide an assessment whether allocation transfer provisions are clear but fairness is necessarily the individual judgement of decision-makers. A full description of the allocation arrangements and transfer mechanisms will be provided under each of the allocation change proposals as well as a general rating in relation to transparency and clarity.

Objective 6: Improved Governance of the fishery

Three indicators have been selected under this objective, all using a defined impact scale:

1. **Potential for other rules and regulations in the fishery to be relaxed? (high/medium/low)**
2. **Potential for additional or improved management agreements with First Nations (high/medium/low)**
3. **Potential for more co-operative planning among First Nations, DFO and commercial interests (neutral/improved)**

Many of the indicators suggested by participants in this area cannot be reasonably estimated numerically (e.g. # of participating groups or # of committee members attending). Others cannot be reasonably rated even on a qualitative scale (e.g. level of support for harvest plans). However, some of the proposed allocation changes may facilitate some relaxation of other rules and regulations in the fishery. Also it may be possible to qualitatively assess whether the potential is greater for an increased number of fisheries management agreements between First Nations and government and for more co-operative planning among First Nations, DFO and commercial interests.

Objective 7: Improved Resource Sustainability

Two indicators have been selected under this objective, both using a defined impact scale:

1. **Is improved catch monitoring and reporting required? (yes/no/uncertain)**
2. **Potential to improve adherence to selective fishing standards? (low/medium/high)**

Many of the indicators suggested by the participants depend upon the extent and level of catch monitoring and reporting required in the fishery. Improved catch monitoring and reporting in the fishery directly facilitates better enforcement and improves the timeliness and accuracy of information

available to decision makers. Some allocation change approaches may directly require improved monitoring and reporting in the fishery. In addition, adherence to selective fishing standards and improved ability to avoid stocks and species of concern are agreed by all to be an important element of improved resource sustainability. An attempt will be made to rate this on a defined impact scale.

Summary of the Analytical Framework:

Table 1
Summary of Objectives and Key Indicators for Analysis

Overarching Objectives	Key Indicators	Metrics
Objective 1: Greater Certainty of Access to Salmon Resources	Duration of Allocation Agreement	Defined Impact (annual/multi-year/permanent)
	Includes a Specific Allocation for First Nations?	Defined Impact (yes/no)
	Projected Change in the TACC Harvested by Fleet/FN	Numeric (%)
Objective 2: Increased Economic/Financial Benefits from Fishing	Change in total net income by fishery (licence area fleet and First Nations	Numeric ($)
	Change in fishing income by social group (crew, operator, vessel, active/inactive vessels)	Numeric ($)
	Likelihood of increased management costs to DFO for stock assessment and/or fisheries enforcement	Defined Impact (unlikely/neutral/likely)
Objective 3: Increased Social Values from Fishing	Change in number of fishers by fishery (licence area fleet and First Nations) and by social group (crew, operators)	Numeric (# of fishers)
	Change in average days fishing per vessel (licence area fleet)	Numeric (# of days)
	Assessments of improvements to safety in the fishery	Defined Impact (positive/negative/neutral)
Objective 4: Improved Financial and Social Viability from Fishing	Change in average income per vessel by fishery (licence area fleet and First Nations)	Numeric ($)
	Change in average income by social group (crew, operators and active/inactive vessels)	Numeric ($)
Objective 5: Improved Clarity and Fairness when Allocations are Transferred	Are allocation arrangements clear?	Defined Impact (yes/no)
	Are the transferability provisions clear?	Defined Impact (yes/no)
Objective 6: Improved Governance of the Fishery	Potential for other rules and regulations to be relaxed.	Defined Impact (high/medium/low)
	Potential for additional management agreements with First Nations	Defined Impact (high/medium/low)
	Potential for more co-operative planning among First Nations, DFO and commercial interests	Defined Impact (neutral/improved)
Objective 7: Improved Resource Sustainability	Is improved catch monitoring and reporting required?	Defined Impact (yes/no/uncertain)
	Potential to improve adherence to selective fishing standards	Defined Impact (low/medium/high)

Proposals for Change:

The CSAB provided through its discussions fourteen somewhat over-lapping proposals for change to the allocation framework reflecting significant differences of opinion on certain issues with some attempts to refine these into a more manageable number. First Nations provided a single coherent proposal that has some commonalities with some of the CSAB proposals. A review of the various proposals relative to the current situation and the various differences of opinion among the sectors and groups follows under three key headings. After this, the various change proposals are organized for the purpose of socio-economic analysis.

What should be shared?

Current Situation:

A fixed target allocation of the Total Allowable Commercial Catch (TACC) for all species for each of the three long established commercial gear types is currently determined at a coast wide level on the basis of a "sockeye equivalent" calculation. This calculation converts all species to a common currency based upon annually updated market prices and identifies a 40% target share for the seine fleet, 38% target share for the gillnet fleet and 22% target share for the troll fleet. In effect this is a target allocation of the total anticipated commercial harvest value that applies every year.

Proposed Changes:

- There is general agreement that the shares should remain related to the Total Allowable Commercial Catch (TACC) but some difference of opinion on how the TACC should be defined.
- CSAB representatives favour including Excess Salmon to Spawning Requirements (ESSR) harvest within the TACC while SCC representatives generally disagree with this approach.
- There is also a range of suggested changes to the geographical and biological scale proposed for allocations by different commercial fishing groups and First Nations.
- At one end of the spectrum, at least one commercial group seems satisfied with the current coast-wide scale and their proposal is limited to revising the sockeye equivalent calculations to avoid penalizing successful initiatives to add value to the catch.
- Others including First Nations representatives indicate dissatisfaction with the current coast-wide scale.
- A number of proposals call for allocations to be established by fleet (area and gear type), a defined First Nations allocation and by fishery (species). In some instances it is also suggested that specific allocations of non-target (by-catch) species be established for each fishery.
- One intermediate proposal called for the establishment of allocations for the North Coast and South Coast separately based upon an "updated" sockeye equivalent calculation. However, in more recent discussions this proposal has further evolved.

To whom should shares apply?

Current Situation:

The current allocation framework identifies target shares of the total harvest value of all species only for each of the three long established gear types in the fishery. Planned species allocations by fishery production area and gear licence area guided by these allocation targets and the anticipated harvest in each fishery are developed annually in consultation with the three gear groups. These planned allocations can shift and change from year to year depending upon the anticipated abundance of the different species. On a trial basis in several individual fisheries, further sub-division of gear and area allocations among the individual participants has been allowed to facilitate pooling arrangements and individual quota operations. Further sub-division to date has generally assigned an equal share of the allowable catch or fishing effort to each licence holder entitled to participate in the fishery. No explicit First Nations share of the commercial catch is presently identified.

Proposed Changes:

- First Nations favour a First Nations commercial allocation being explicitly identified and recognized separately from the regular commercial fishery.
- A number of commercial groups favour the shares being established at the level of species, individual gear and area fleets on a more permanent basis rather than annually as at present.
- Further sub-division of the allocations below this level is a controversial issue.
- Some commercial fishers favour the establishment of shares for each species at the level of individual licences in all fisheries.
- Others are strongly opposed to the establishment of individual licence shares in any fishery although some opponents do indicate a willingness to grandfather current trial arrangements.
- Yet others hold that this should be a democratic decision for the participants in each fleet.
- Suggested procedures for establishing individual shares focus on equal shares of the allowable catch although some discussion of alternative approaches has occurred.

Should the shares be transferable?

Current Situation:

There are no formal provisions for the direct transfer of current target allocations between the three gear types in the fishery. However, the allocation policy recognizes that the relative size of the three fleets may change over time due to licence retirement programs or other initiatives. The policy indicates and provides an illustration of how target allocations will be adjusted to account for this. Also, there is recognition in the policy that some fleets may not be able to catch their planned allocations for conservation reasons. In these cases, the Department reserves the right to unilaterally transfer the planned allocation to other fleets. In order to maintain the coast wide sharing arrangement a specific priority is given to fleets of the same gear type in other areas.

In addition, approaches have been taken through PICFI and the Aboriginal Transfer Program (ATP) to transfer allocations from the established fishing fleets to First Nations inland fisheries. In effect, a share of the commercial allowable catch has been transferred to First Nations by way of voluntary licence relinquishments from the established fishing fleets. Within specific fisheries where individual allocations have been established on a trial basis, temporary transfers of allocations between individual fishers have also been permitted.

Proposed Changes:

- Transferability of allocations has several distinct aspects – transfer from the established fleets to First Nations, transfer between established fleets, and transfer between individual fishers.
- Opinions on proposed changes vary considerably between the various fishing groups on these different aspects.
- The first aspect (transfer from the established fleets to First Nations) is the least controversial and there is general agreement that this should be enabled subject to "fair" compensation to the impacted fishers. The formulas and procedures presently used in order to affect these transfers have been questioned by both First Nations and other commercial fishers.
- The second aspect is more controversial but there appears to be some agreement that this should be enabled at least temporarily when a fleet cannot catch its allocation because of conservation concerns or other reasons. There are various views on whether compensation is justified and, if justified, what would be regarded as "fair" compensation to the adversely impacted fleets.
- The third aspect is the most controversial. Transferability of allocations between individuals within fleets requires the establishment of individual quotas. While some favour individual quotas and full or at least partial transferability of allocations between individual fishers, others are opposed.

Organization of Change Proposals for Analysis:

The fifteen change proposals need to be organized in a way that simplifies and facilitates the understanding of key issues and trade-offs. The various change proposals reflect some fundamentally different opinions on a number of key issues including the appropriate geographic and biological scale for the allocations (coast-wide, by area fleet, by area fleet and species); to whom the allocations should be provided (coast-wide fleets, area licensed fleets including First Nations, individual licence holders) and; the transferability of allocations. At the same time, many of the proposals are similar or the same in many areas. Where proposals are similar or the same or reflect relatively minor modifications, it only adds confusion when they are analyzed separately.

For evaluation purposes, the various change proposals and the range of views on key issues have been organized under four general approaches ranging from the most modest change to the most extensive change proposed to the current allocation framework. Each general approach reflects a fundamentally different opinion on at least one specific important aspect of change and the four approaches together reflect the full range of views on these matters. Each approach reflects either an individual change

proposal provided by the participants in its entirety or key aspects that are common to a number of different proposals. [9]

The approaches for analysis are as follows:

Approach 1: Most Modest Change

Key Aspects:

- Maintains the current coast-wide target shares by gear type.
- Revises the current sockeye equivalent calculation in order to eliminate penalties for successfully adding value to the catch.
- Maintains all current transferability provisions for uncaught allocations between fleets and for allocations between fleets and First Nations.

Approach 2: Middle Ground 1

Key Aspects:

- Establishes target shares of the TACC for each species by geographic production area, by area fleet/gear type and for First Nations (based on relinquished licences).
- Includes the ESSR in the TACC.
- Provides specific allocations for non-target (by-catch) species in each fishery.
- Requires "business arrangements" for the transfer of any uncaught allocations between fleets and between fleets and First Nations.
- First Nations share determined using present procedures for assigning harvest shares to the relinquished licences (i.e. based upon the average harvest of the entire fishing fleet).

Approach 3: Middle Ground 2

Key Aspects:

- Establishes target shares of the TACC for each species by geographic production area, by area fleet/gear type and for First Nations (based on relinquished licences).
- Does not include the ESSR in the TACC.
- Provides specific allocations of non-target (by-catch) species in each fishery.

[9] It needs to be emphasized that there have been ongoing discussions within the SCC and the CSAB and between SCC and CSAB representatives on the proposals initially tabled and the potential for finding common ground. As a result, the parties thinking on and the specific proposals themselves are continuing to evolve. For this reason the four approaches used in this analysis may not fully reflect the present views and the full complexity and range of the evolving proposals on the table. At the same time, it is believed that the four approaches represent a useful basis from which to further advance these ongoing discussions. In many cases the analysis may confirm the direction of the discussions and in other cases it may provide reasons for sober second thought. In yet other cases it may suggest some productive new directions to explore.

- Maintains current uncompensated provisions for the transfer of any uncaught allocations between fleets and between fleets and First Nations i.e. authority to transfer rests with the Department – business arrangements not required.
- First Nations share determined using revised procedures for assigning harvest shares to the relinquished licences based upon actively participating licences in the fisheries rather than the entire fishing fleet.

Approach 4: Most Extensive Change

Key Aspects:

- Further sub-divides the target shares for each species by production area and fleet (gear type) by individual licence based on equal shares of the allowable catch to all licence holders.
- Identifies a specific harvest share for First Nations as in Approach 2.
- Provides for transferability of individual shares within fleets on a temporary (one year) basis with a maximum cap on total quota holdings by individual licence holders and fleets
- Provides for transferability of individual shares between fleets and First Nations on both a temporary and longer term basis.

This organization of the proposed changes simplifies comparisons and facilitates more focussed discussion of different approaches to key issues (including the calculation of sockeye equivalents, geographic/biological resolution of shares, individual licence shares and the transferability of shares) and an identification of the most desirable from various different social and economic perspectives.

Analysis:

The intent of socio-economic impact assessment is to assist decision-making by providing information on the effects (impacts) of an action (or set of actions) either taken in the past or under consideration for the future. In the specific case of salmon allocation policy change, the actions under consideration are contemplated for the future. As a result, the assessment is forward looking. If we change the allocation policy what will change in the future state of the world? This necessarily involves comparing and assessing differences between alternative forecasts of the future. It does not involve comparing the future to the past or the present.

In this type of assessment developing an appropriate "base case" is an essential and necessary first step. The base case represents the anticipated future state of the world without the contemplated actions being taken. In effect, the base case requires making appropriate assumptions about key variables such as the level of future harvests, prices, the distribution of harvests, participation levels in the fishery and so on in the absence of change to the allocation policy. This allows base case forecasts of key variables such as landed values, net income, employment, wages in the fishery and so on.

Alternative projected states of the world or "scenarios of the future" (with contemplated actions) are then compared to the base case (without the contemplated actions). The differences are the impacts (both positive and negative) of the actions.

This does not mean that substantive guidance to the future cannot be provided by past data and information. It only means that past data should be used with care in projecting the future. If present and future circumstances are known to be different than the past or there are strong reasons to believe that future circumstances will differ from the past, past data needs to be adjusted to reflect these differences in the base case forecast. There are several areas where adjustments to past data are appropriate in assessing allocation policy change and these are discussed below.

Key Base Case Assumptions:

1. ***Future Harvests***

A base case forecast of future harvest by salmon species is the first significant data need for the analysis. Given the interests of the participants in the discussions, this forecast needs to be disaggregated by area of the coast. For management purposes, the Department has identified several geographic production areas for each species of salmon and these areas have been used to organize data. The production area definitions are provided in Table 2 below. The Statistical Areas in the table refer to the Department's management areas. For associated maps please see www.pac.dfo-mpo.gc.ca.

Table 2
Production Area Definitions

Species	Production Area	Statistical Areas	Species	Production Areas	Statistical Areas
Sockeye	North	1+3+5+101-105	**Coho**	North	1-10
	Central	6-8		South Inside	11-20+29
	Rivers/Smith	9-10		South Outside	21-27+121-127
	South Local	23	**Chinook**	North	1-5
	South Fraser	107-111+24-27+28-29+123-127+121		Central	6-10
Chum	North 1	1+2E+2W+101-111+130+142		South Inside	11-20+29
	North 2	3-5		South Outside	21-27+121-127
	Central	6-10	**Pink**	North	1+2E+2W(even)+3-5+101-105
	South Inside	11-19+28-29		Central	6-10
	Nitinat	21-22		Fraser	107-111+142+130+11,12-13 (pass through) 14-29+2W(odd)+121+123-127
	South Outside	23-27		Mainland	12-13 (Mainland Inlets only)

In the future we know that the harvest of salmon will fluctuate dramatically from year to year because of known abundance cycles of the various species and runs. However, there is no way of knowing whether overall future trends in abundance will be up or down. In the absence of strong evidence one

way or another, the most appropriate assumption is that abundance and harvests will follow some recent historic pattern.

This appears to be an appropriate assumption for pink, chum, coho and sockeye salmon.[10] However, this assumption is inappropriate for Chinook salmon. Changes to the Pacific salmon treaty between Canada and the US came into effect for the 2009 fishing season. The effect of these changes has been to substantially reduce the allowable harvest of Chinook from previous levels in certain production areas. For this reason, adjustments to historic harvests of Chinook salmon are needed for a base case forecast of the future.

For pink, chum, coho and sockeye salmon, it has been assumed that future tidal harvest of the area licensed fleets will reflect the past pattern and quantity of harvests over the last three four year cycles for which complete data is available (2001-2012). For Chinook salmon, it has been assumed that future harvests will reflect the past pattern of harvests over the last three four year cycles (2001-2012) but with a reduction in annual harvests off the West Coast of Vancouver Island and Northern British Columbia to reflect changes to the Pacific Salmon Treaty. These adjustments were derived from annual reports of the Pacific Salmon Commission and reflect the estimated impact on the commercial harvest of a 30% reduction in total harvests (including commercial, recreational and First Nations food, social and ceremonial harvests).

Estimates of inland harvests by First Nations in Economic Opportunity, Demonstration and ESSR fisheries over the four year period 2009-2012 were obtained from a recent study undertaken jointly for the Pacific Salmon Foundation and the DFO.[11]

Table 1.1 in Appendix 1 provides a base case forecast of average annual commercial harvests by the various area fleets for all five species of salmon and for each of the identified production areas. The First Nations EO, Demonstration and ESSR forecast could not be broken out by production area but is provided by species for both North and South coast areas.

2. Future Salmon Prices

The vast majority of British Columbia wild salmon is exported from the province and prices received generally reflect supply and demand conditions in world markets for salmon products. Wild products compete with aquaculture salmon products in many markets. The level of aquaculture production is a key influence on overall prices and this has been increasing over time. Exchange rate changes in major market areas are yet another key influence on the prices received. The limited share of world

[10] Some questions have been raised about the appropriateness of this assumption for some runs of sockeye salmon. For example, in 2009, exploitation rates for Skeena River sockeye salmon (a major component of the North Sockeye Production area) were substantially reduced due to lower abundance of these runs. As a result, recent harvests have been considerably lower than in the past. However, this management regime change is still evolving and it is uncertain that this low abundance cycle will continue. In effect, it is assumed that abundance of the Skeena River runs will recover at some point in the future and previous exploitation rates will be reinstated.
[11] "Financial Analysis of Commercial Salmon Fisheries: Marine and Inland Fisheries" - Counterpoint Consulting - April 26th, 2014

production accounted for by the British Columbia means that British Columbia production has very little influence on the overall market price levels.

The landed prices received by fishers generally reflect a residual value from the wholesale value after accounting for processing costs. Evidence indicates that landed prices have fluctuated dramatically for individual species and between species over time. A review of landed price data over the period from 2001 to 2012 indicates that the average landed price of sockeye salmon has remained relatively stable but that the landed prices of pink, chum, coho and chinook salmon have increased fairly significantly over time. The value of each of these species relative to sockeye has increased fairly dramatically since the early 2000's. The reasons for this are undoubtedly numerous but could include improved product mix and quality, access to new market niches and so on. The end result is that landed prices from the distant past are unlikely a good basis for forecasting future landed prices.

For the marine fishery it has been assumed that future landed prices will reflect weighted average prices for each species over the most recent four year cycle for which complete data is available (2008-2011). Prices have been differentiated between the north and south of the province. This is in order to reflect some consistent local market differences that are apparent.

For First Nations Economic Opportunity, Demonstration and ESSR prices we have again relied on the recent Pacific Salmon Foundation/DFO study that provides data on aboriginal commercial fishing enterprises. The estimated weighted average landed prices received over the period 2009-2012 have been used in the analysis. Again these are differentiated between North and South of the province. It should be noted that there is a significant variation in the prices received in this inland fishery depending upon the location of harvest. Fish caught in more terminal areas is of significantly lower value because of reduced quality. However, on the basis of the available data it is not possible to differentiate prices and volumes between terminal and non-terminal areas. An average price has been consistently used in this analysis.

Table 1.2 in Appendix 1 provides the base case forecast of average prices for all five species of salmon in both ocean and inland fisheries.

3. Future Harvest Shares

To address the interests of the participants in the discussions, the base case forecast of harvest by species needs to be distributed between the area fleets and First Nations.

It has been assumed for analysis purposes that future shares of the marine harvest of each area fleet in each production area and for each species will reflect their average shares over the most recent four year cycle (2009-2012) and rounded to the nearest percentage.[12]

[12] An issue here relates to an ongoing troll licence buyback program that has been operating as an element of Pacific Salmon Treaty mitigation. Under the present allocation policy, changes in fleet size resulting from these types of programs generally require an adjustment in the harvest target shares. An adjustment in target shares, if applied, would undoubtedly impact future harvest shares between fleets. However, for a number of reasons it is uncertain whether these adjustments will be applied in this specific case. We have assumed here that no adjustment to future shares will be made as a result of this buyback program.

The First Nations share is defined to include both coastal and inland components.

The Department presently holds on behalf of First Nations an inventory of relinquished licences from the various area licensed fleets under an Aboriginal Transfer Program (ATP) and a Pacific Integrated Commercial Fishing Initiative (PICFI). A number of these licences have been allocated to individual First Nations as communally held category "F" licences. These licences can then be used to operate vessels in the established area licensed fisheries under the same rules and regulations as other participants. The current (2013) proportion of category "F" licenses issued from the DFO inventory relative to the total licences in each fishery was used to estimate a First Nations share of the coastal harvest of salmon. This effectively assumes that each communal "F" licence represents an average share of the harvest in the fishery for which it was licensed. This does not mean that each licence in the "F" category fleet is assumed to attain an average share but that the overall performance of the "F" fleet matches that of the fleet as a whole.

The remaining licences in the DFO inventory (not assigned as category "F") are reserved to provide for First Nations inland economic opportunity and demonstration fisheries as well as a number of negotiated treaty arrangements with respect to salmon harvest. The estimated average harvest by First Nations from the recent Pacific Salmon Foundation/DFO study of aboriginal commercial fishing enterprises is considered the inland component of the First Nations share.[13]

It should be noted that there are two other important elements of First Nations participation in the fishery. The first is through reduced fee (A-I category) licences held by individual First Nations fishers and the second is through N category licences reserved for First Nations use through the Northern Native Fishing Corporation. Since these are not communal licences but are privately held and subject to the same rules and regulations as other licence holders in the fishery they have not been considered part of the First Nations share and remain included in the general share of each area licence category.

Table 1.3 in Appendix 1 provides a base case forecast of future shares of the marine harvest between the various coastal fleets in the fishery. The estimated communal "F" share of this coastal fishery harvest is identified in the last column of the table.

4. The Number of Operating Vessels in Each Fishery

The number of eligible licence holders that choose to operate vessels in each fishery varies from year to year depending upon a range of factors including anticipated harvest levels and prices, fishing costs, the range of alternative fishing opportunities for other species and so on. The decision to operate in the salmon fishery is a financial judgement made by each individual licence holder each year. Past participation in each area licensed fleet can be estimated on the basis of DFO's Fisheries Operations System (FOS) data base. This data base identifies the vessels that record landings in the fisheries each year. The number of vessels with recorded landings can then be compared to the total number of licence holders eligible to participate in each fishery.

[13] It is noted that the DFO inventory of relinquished licences has been increasing significantly over time and this is likely to continue into the future. This would effectively increase the First Nations share over time. However, there is no way of estimating the extent to which this will occur. Consequently, rather than speculate it is simply assumed that the inventory will remain stable into the future.

A comparison of participation rates over time shows that participation has been generally declining in all fleets in recent years – for every fleet the average annual participation in the most recent four year period is substantially below that of 2001-2004. A substantial shift in the data series to lower participation is apparent in and around 2007 and 2008. This is likely partly due to the implementation of pilot individual quota and pooling arrangements in some fisheries. The result is that more distant past participation rates in the fishery do not seem to provide much guidance to future participation in the fishery.

For this reason, we have focussed on more recent information to develop a base case projection of participation in the fishery. Specifically, it is assumed that the average participation rate over the four year period 2009-2012 will apply on average in the future. These predicted participation rates are provided in the last column of Appendix Table 1.4.

These predicted participation rates were then applied to the current number of eligible licence holders in each fishery to derive an estimate of vessel numbers participating in each fleet. These estimates are provided in Appendix Table 1.5.

5. **Future Fishing Costs**

There are two consultant studies available that are relevant to deriving a base case forecast of fishing costs in the salmon fishery. The first is "The British Columbia Salmon Fleet Financial Profile 2009" prepared for DFO by G.S. Gislason and Associates.[14] This provides detailed cost estimates (per active boat and for the total fleet) for each of the area licensed fleets in the fishery for the 2009 fishing season. The second is "Pacific Commercial Fishing Fleet: Financial Profiles for 2009" prepared for DFO by Stuart Nelson of Nelson Bros. Fisheries Ltd.[15]

Both studies are based on different information sources and treat some costs differently. However, the total costs identified appear to be relatively consistent. Gislason's study has the advantage of providing specific information on each licence area fleet. Nelson's study has considerable information on the financial and cost performance of different vessel groupings within each gear type (i.e. multiple "stacked" versus single licenced vessels and different production categories). However, Nelson's information applies to gear types only and is not sub-divided by area licence fleet. On this basis, we used Gislason's cost breakdowns as the most appropriate starting point for this study.

Two concerns remained with Gislason's data that required some significant adjustments.

First, Gislason uses estimated "Earnings before Income Taxes, Depreciation and Amortization" (EBITDA) as the financial performance indicator for fishing. In effect, estimated wage income paid to crews and skippers in the fishery are treated as a cost in the analysis. In this study, we use the wages paid for the work done by the labour directly employed in the fishery as a social impact of fishing. As a result, we

[14] "The British Columbia Salmon Fleet Financial Profile 2009" – G. S. Gislason and Associates Ltd. – Prepared for Fisheries and Oceans Canada, Vancouver, BC – April 15th 2011.
[15] "Pacific Commercial Fishing Fleet: Financial Profiles for 2009" – Stuart Nelson, Nelson Brothers Fisheries Ltd. – Prepared for Fisheries and Oceans Canada, Vancouver, BC – 2011.

revised the cost estimates to exclude the estimated wages paid to fishers from the total cost estimates. The effect of this is that the revised financial bottom line used in this analysis approximates "Value Added" from fishing. Value Added represents the financial surplus available after subtracting the costs of material, energy and other purchased services (e.g. accounting) not provided in-house by the fishing enterprise. Effectively, this is the surplus available to pay wages to participating fishers, interest payments on business debt and provide for depreciation of assets and profit to vessel owners.[16]

Second, Gislason's study applies to a single year (2009) when overall production levels in the fishery were low relative to both historic averages and the base case projections of future average harvests with the exception of Area A seine where large pink salmon harvests dramatically increased harvest volumes above historic averages. Applying Gislason's estimates without adjustment for this would likely over-estimate average fishing costs for Area A and under-estimate average fishing costs for all other fleets.

To address this problem adjustments were made to the average cost estimates by comparing the actual harvest volumes of each area fleet in 2009 with the projected base case harvest levels and then scaling the estimates of variable costs (those that can be expected to vary with the amount of fishing) to reflect relative differences. These results were then taken and discussed with the participants in the allocation discussions. One suggestion received was to adjust Gislason's estimates on the basis of days fishing as a general measure of fishing effort rather than fish volumes. In addition, CSAB participants provided specific alternative cost estimates based on their personal knowledge of the industry.

All of these alternative cost estimates are provided in Appendix Table 1.6 for an average vessel in each fishery. For this analysis we have used an average of all four estimates in order to make use of all information available.

Estimated costs for First Nations inland fisheries were derived from the recent Pacific Salmon Foundation/DFO study of aboriginal commercial fishing enterprises. This study provides detailed estimates on the total cost of both fishing and processing the inland harvest. For comparability with the coastal sector, we focussed on fishing cost component of this data. This was available broken out by North and South of the province. Since vessels are not always the basic element of effort in these fisheries, average costs in this fishery on per kilogram of landed weight basis have been used.

Impacts of Change:

Change Approach 1 (Most Modest Change):

Under the present approach to allocation, annual adjustments are made in the sharing calculations to reflect the changing relative prices of the different species of salmon. In general, this equates the target

[16] For a good discussion of Value Added (what it includes and does not include) and its relationship to provincial Gross Domestic Product (GDP) in the context of the commercial fishery, see "British Columbia's Fisheries and Aquaculture Sector, 2012 Edition" – BC Statistics – Pp 10 and 11.

shares to shares of the total landed value of the harvest. [17] The overall effect of this approach is over time to reduce the target harvest volume for those fleets where relative prices are increasing while increasing the target harvest volume for other fleets.

Change Approach 1 involves maintaining present coast-wide sharing targets (of 40% seine/38% gillnet/22% troll) and all other aspects of the present allocation framework but adapting the adjustment system (i.e. the sockeye equivalent calculation) on which the shares are based to avoid penalizing those fleets that that have successfully added value to their catch.

The proponents of this approach did not suggest a specific alternative sockeye equivalent calculation. However, the concern of the proponents particularly relates to the increasing relative value of Chinook and Coho salmon that has been seen over time and its perceived adverse impacts on troll fleet allocations. As a result, to model this change approach, a fixed sockeye equivalent exchange rate that reflects the average salmon prices in 2001-2004 was chosen and has been applied in the fishery. A comparison of this new sockeye equivalent exchange rate and that assumed in our base case is provided in Table 3 below.

Table 3
A Revised Sockeye Equivalent Calculation

	Base Case Price/Piece	Base Case Sockeye Equivalent	Average Price Per Piece (2001-2004)	Revised Sockeye Equivalent
Sockeye	$7.82	**1.00**	$10.99	**1.00**
Pink	$1.08	**0.14**	$0.57	**0.05**
Chum	$7.88	**1.01**	$3.37	**0.31**
Coho	$14.96	**1.91**	$9.65	**0.88**
Chinook	$53.25	**6.81**	$36.31	**3.30**

It can be seen that the value of both Chinook and Coho salmon relative to sockeye is substantially lower under this new exchange rate. This seems to reflect the intention of the proponents of this particular approach to allocation policy change.

Objective 1: Greater Certainty of Access

Duration of the Allocation Agreement: Under the present system target allocations change from year to year with shifts in relative prices. This change proposal would eliminate this element of uncertainty with respect to the sharing arrangements by permanently fixing the exchange rate between species. However, annual changes in local area allocations would still occur in response to changes in the abundance of different species and runs.

[17] Under the current system the relationship of shares to landed values is not precise. Price adjustments to sockeye equivalent calculations are lagged by one year.

A Specific Allocation for First Nations: The proposal does not call for the establishment of an explicit allocation for First Nations.

Projected Change in the TACC harvested: Apart from the change in calculation of sockeye equivalents there are no other substantive changes associated with this specific proposal. It is unlikely that any increase or decrease in the portion of the TACC harvested would be associated with implementation of this approach.

The overall improvement in certainty under this allocation change approach is rated as modest at best.

Objective 2: Increased Economic/Financial Benefit from Fishing

Change in Total Net Income from Fishing: Under this proposal for change, there is no reason to believe that the average costs of fishing would increase or decrease. At the same time, it can be anticipated that this new system would tend to increase the harvests of the troll fleets which are more dependent on Chinook and Coho salmon and reduce the harvests of the net fleets more dependent on sockeye salmon. In turn, this could substantially change the distribution of landed value, value added, employment and wages between the various area fleets in the fishery.

Table 4 following provides specific estimates of the impacts on the Value Added and Wage Income achieved by skippers and crew in the different area fleets applying the revised sockeye equivalent calculation noted above.

Table 4
Potential Economic/Financial Impacts of Change Approach 1
On Area Fleets

Fleets	Value Added Impacts ($000)	Wage Impacts Crew ($000)	Wage Impacts Skippers ($000)
A	757	345	138
B	-1,254	-551	-222
Seine	**-497**	**-206**	**-84**
C	-163	-30	-116
D	-28	-31	-118
E	-458	-41	-316
Gillnet	**-649**	**-102**	**-550**
F	1,960	527	649
G	133	34	67
H	-83	-13	-41
Troll	**2,010**	**548**	**675**
All Fleets	**864**	**248**	**41**

As expected this allocation change approach generally favours troll over net gears. However, it does not do so consistently. For example, the northern seine fleet (Area A) is projected to be a fairly substantial beneficiary of the proposed new system increasing its value added by about $750 thousand. This is due to its higher reliance on pink rather than sockeye salmon than other net fleets. The Area B seine fleet is projected to be negatively impacted and the seine fleet coast-wide is also negatively impacted (by close to $500 thousand). Although all salmon gillnet fleets are negatively impacted under this proposed new system, the major negative impact is focussed on the Area E (Fraser River) gillnet fleet. The troll fleets coast-wide are projected to be the major beneficiaries of this proposed allocation change approach. However, not all troll fleets are projected to benefit from the proposed new system. Area H troll, because of its relatively high dependence on sockeye, is negatively impacted by about $83 thousand in value added.

The overall impact on value added in the fishery is projected to be very modestly positive. This is due to the transfer of harvest volumes to the troll fleet that appears to generate somewhat higher value added per unit of production than the net fleets. The estimated Value Added for all fleets in the fishery increases by about $860 thousand. To put this in perspective this is about a 3% increase in the base case value added in the fishery.

Change in Income by Social Group: The projected impact on wage income in the fishery is also modestly positive. The anticipated total impact on wages of both crew and skippers is $289 thousand. The vast majority of this impact (about 85%) is anticipated to benefit crew in the fishery.

Again the distribution of impacts between the different fleet segments is highly variable. Crew income increases are projected for both Area A Seine and Area F Troll. Skipper income increases are also projected for Area F Troll. Negative crew and skipper income impacts are projected for all other fleets with the exception of Area G Troll.

No changes to First Nations inland harvests are anticipated under this change approach. As a result, impacts on First Nations would be limited to those incurred through First Nations participation in the area licensed coastal fishery through communal “F” category licenses. Estimated impacts on First Nations are provided in Table 5 below and generally parallel the impacts on the area fleets but with some differences.

The overall impacts on value added are modestly positive with losses to the gillnet fleets and Area B seine more than compensated by increased value added in Area A seine and areas F and G troll. The overall impact on wages in the fishery is also slightly positive. However, in this case increased wages to crew are partially offset by reduced wages to skippers in the fishery. This is due to the higher proportion of the First Nations communally owned fleet that operate in the various gillnet fisheries that are negatively impacted by this allocation change proposal. The overall distribution of these First Nations impacts favours the North (Areas A, C and F) and favours troll over gillnet.

Table 5
Potential Economic/Financial Impacts of Change Approach 1
On First Nations

Fleets	Value Added Impacts ($000)	Income Impacts Crew ($000)	Income Impacts Skippers ($000)
A	70	32	13
B	-89	-39	-16
Seine	**-29**	**-7**	**-3**
C	-11	-2	-8
D	-6	-6	-25
E	-22	-2	-16
Gillnet	**-39**	**-10**	**-49**
F	96	26	32
G	25	6	13
H	-3	-1	-2
Troll	**118**	**31**	**43**
All Fleets	**50**	**14**	**-9**

Likelihood of Increased Management Costs to DFO: Given the relatively modest changes to the allocation system proposed under this change approach, it is not anticipated that management costs for either stock assessment or fisheries enforcement will increase.

Objective 3: Increased Social Values from Fishing

Change in Number of Fishers by Fishery and by Social Group: Some of the key factors determining whether an eligible licence holder will operate in the fishery in any given year are anticipated catches, prices and ultimately landed values. In general, increases or decreases in landed value for an individual fishing fleet can be anticipated to decrease or increase the number of operating vessels in the fishery.

As noted above, the projected impact of implementing this change approach is to primarily change the distribution of landed values in the fishery. For the purposes of analysis, we have assumed here that the number of operating vessels in each fleet will change directly and proportionately with changes in landed values in each fishery. The projected implications of this in terms of operating vessels and employment are laid out in Table 6 below.

It can be seen here that the overall impact on employment in the fishery is projected to be negative. About 98 less fishing vessels are anticipated to operate on average under this change approach and this would imply a potential employment loss of about 99 persons. This includes a fairly significant reduction in the number of skippers particularly in the gillnet fleets. This is only partially compensated by additional crew employed in the Area A Seine and Area F and G Troll fleets. As with Value Added and Wage Income, the projected impacts vary dramatically from area fleet to area fleet with employment in

all components of the gillnet fleet being adversely affected, particularly Area E (minus 97 persons employed).

Table 6

Potential Social Impacts of Change Approach 1
On Area Fleets

Fleets	Impact on Vessel Numbers	Average Crew Size	Impact on Skipper Numbers	Impact on Crew Numbers	Total Employment Impacts	First Nations Employment Impacts
A	+8	5	+8	+33	+41	+4
B	-13	5	-13	-51	-64	-5
Seine	**-5**		**-5**	**-18**	**-23**	**-1**
C	-20	1.4	-20	-8	-28	-2
D	-31	1.4	-31	-12	-43	-9
E	-81	1.2	-81	-16	-97	-5
Gillnet	**-132**		**-132**	**-36**	**-168**	**-16**
F	39	2.3	+39	+51	+90	+4
G	5	1.8	+5	+4	+9	+2
H	-5	1.5	-5	-2	-7	0
Troll	**+39**		**+39**	**+53**	**+92**	**+6**
All Fleets	**-98**		**-98**	**-1**	**-99**	**-11**

The estimated impacts on First Nations employment is provided in the last column of Table 6. The overall impacts generally parallel those in the overall fleet. Some gains are projected in troll and Area A Seine employment but these are more than offset by employment losses in the gillnet fleets. The overall impacts are effectively neutral for the North (Areas A, C and F) but negative for the south coast.

Change in Average Days Fishing by Fishing Vessel: Under this change approach there is no anticipated increase in the volume of the total harvest. Also, while the distribution of the harvest and the landed value between the different fleets changes quite significantly as a result of the revised sockeye equivalent calculation, the size of the fleets is assumed to adjust proportionately to these changes. Consequently, no impacts on the average days fished within individual area fleets are projected.

Potential Improvements to Safety in the Fishery: Given the relatively modest changes to the allocation system proposed under this change approach, it is not anticipated that any significant safety improvements would result.

Objective 4: Improved Financial and Social Viability from Fishing

Changes in Average Income per Vessel by Fishery: As total landed value in each fishery changes under this change approach it has been assumed that the number of operating vessels in the fishery will change proportionately. At the same time there is no basis to believe that average fishing costs will

change. As a result, average landed value, net income or value added per vessel in all fisheries will remain unchanged under this approach.

Changes in Average Income by Social Group: Since average landed value in each fishery remains unchanged given the assumptions made, no change in average income by social group is anticipated.

Objective 5: Improved Clarity and Fairness when Allocations are transferred

Clarity of Allocation Arrangements: Clarity refers to the transparency of the allocation arrangements among fleets and between fleets and First Nations. There is no reason to believe that these would be further clarified under this allocation change approach. In particular, there is no formal allocation to First Nations under this approach.

Are Transferability Provisions Clarified: Any transfer of allocations among fleets or between fleets and First Nations remains under the ultimate control of the Department without provision for compensation to or agreement of the adversely affected parties.

Objective 6: Improved Governance of the Fishery

Potential for Other Rules and Regulations to be relaxed: Given the relatively modest changes to the allocation system proposed under this change approach, it is not anticipated that any of the current rules and regulations around fishing could be relaxed.

Potential for Improved Management Arrangements with First Nations: Given the relatively modest changes to the allocation system proposed under this change approach, there is no reason to believe that there would be significant potential for improved management arrangements with First Nations.

Potential for more Co-operative Planning among First Nations, DFO and commercial interests: Given the relatively modest changes to the allocation system proposed under this change approach, there is no reason to believe it would stimulate more co-operative planning among the parties.

Objective 7: Improved Resource Sustainability

Is Improved Catch Monitoring and Reporting Required: The proposed change approach maintains all of the relevant elements of the current management system. No improvements to catch monitoring or reporting are required.

Potential to Improve Adherence to Selective Fishing Standards: Given the relatively modest changes to the allocation system proposed under this change approach, there is no reason to believe that adherence to selective fishing standards would improve.

Change Approach 2 (Middle Ground 1):

A key aspect of Change Approach 2 is to establish target shares of the TACC for each species on a more disaggregated basis by production area, individual fleet/gear type and for First Nations based on the DFO inventory of relinquished licences. In addition, it is proposed to include the ESSR harvest within the

TACC. Finally, any transfer of uncaught allocations between fleets and between fleets and First Nations would require agreed upon business arrangements to be established prior to being initiated.

For the purposes of analysis only complete figures on the ESSR harvest on the Skeena River could be provided by DFO. Although this limits the analysis, this does represent the most significant and most consistent ESSR harvest of Pacific salmon. ESSR harvests in other areas tend to be sporadic and generally smaller.

The ESSR harvest on the Skeena River according to DFO statistics has averaged about 101 thousand pieces of sockeye over the last four years. Under this change approach this fish would be subject to established sharing arrangements in the fishery and form part of the allowable harvest of the area licensed fleets in coastal areas. However, these harvestable surpluses result from conservation measures taken in tidal areas that are unlikely to change with a different allocation system. In short, coastal harvest of this fish is unlikely to be technically feasible. More likely scenarios under this allocation policy change approach include continuing harvest in-river but subject to compensation arrangements by First Nations to the coastal fleets or excess escapement in the system.

To assess the potential impacts of this aspect of Change Approach 2, we look first at the impacts on First Nations of eliminating this ESSR fishery. This represents an extreme where no agreed upon business arrangement is reached between First Nations and coastal area licence holders. We then do a more general projection where half of the estimated value added from the ESSR fishery after accounting for wages paid is transferred as compensation to the coastal fishery. This is intended to represent a potential negotiated agreement between the parties.[18]

Like change approach 1, change approach 2 avoids penalizing fishers who successfully add value to their catch. In change approach 1 this was done by fixing the sockeye equivalent calculation to eliminate the effect of price changes on the catch sharing system. In change approach 2, the same end is achieved by directly fixing the share arrangement in each local fishery area regardless of price changes. In addition the greater stability associated with the new fixed local sharing system may encourage better marketing of local products. To address this we have assumed under this approach a 5% general increase in salmon prices in all fisheries.

[18] The starting point for any negotiated agreement between the parties would be the value of the salmon to be harvested net of the costs associated with harvesting. Value added less the wage costs associated with harvesting represents the net value available after accounting for all direct costs associated with harvesting. This is the financial surplus available to cover the costs of depreciation on the assets used in harvesting, interest paid on any borrowed capital and profit to the fishing enterprise. It is assumed here that half of this financial surplus would be made available to facilitate an agreement with coastal fishers. It is stressed that this is simply an illustration of a potential agreement. Other considerations may and undoubtedly would come into play in negotiations. For example, ESSR fish is generally of lower value than the average in the First Nations inland fishery because it is harvested closer to the spawning grounds and of lower quality. This would tend to reduce the amount that First Nations would be willing to pay in any negotiated agreement. On the other hand, maintenance of volumes in the overall First Nations inland fishery may be an important consideration in maintaining overall profitability. This could increase the willingness to pay for the additional fish provided by an ESSR fishery.

The Skeena ESSR Fishery

As noted above the current Skeena River ESSR fishery harvests an average of about 101 thousand pieces of sockeye salmon or about 240 thousand kilograms of product. This is estimated to generate about $245 thousand in value added to First Nations communities and about $102 thousand in income to participating fishers.[19] In addition, the fishery is estimated to employ an average of about 70 persons per year.[20] Under this allocation policy change approach, if no agreement could be made between the coastal fleets and the First Nations, this economic activity would be entirely lost to these First Nations. This would of course result in a variety of attendant social impacts that would significantly affect local First Nations communities that have come to rely on this economic opportunity.

At the same time, under this specific scenario no financial benefits would be realized by tidal area commercial fishers from inclusion of this potential harvest in the TACC.

Objective 1: Greater Certainty of Access

Duration of the Allocation Agreement: Under the present system allocations in local areas can change from year to year with changes in relative prices and the relative abundance of different species coast-wide. This change approach would eliminate two elements of uncertainty with respect to local sharing arrangements by fixing the shares of each species in individual areas over a longer time period or even permanently subject to business arrangements for transfers.

A Specific Allocation for First Nations: The proposal calls for the establishment of a formal allocation for First Nations based upon the inventory of relinquished licences held by DFO on behalf of First Nations. Under this change approach the allocation would be based upon the average production of all eligible licences in each area licensed fleet.

Projected Change in the TACC harvested: There is a considerable literature that stresses the advantage of more localized approaches to fishing in terms of improved co-operation between fishers that can facilitate improved access to fisheries when abundances are low.[21] This change approach does localize fishing to some extent over the current area based licensing system. This approach also calls for the establishment of by-catch allocations for non-target species. Consequently, some marginal increase in the proportion of TACC harvested may be possible. However, there is insufficient information available to quantitatively estimate this.

In conjunction with the requirement for business arrangements to be made prior to any transfer of allocations, this change approach does promise to provide significantly greater certainty around access to or at least benefits from the fishery.

[19] All of these figures are estimated on the basis of data on the Skeena ESSR harvest provided by DFO and financial data contained in "Financial Analysis of Commercial Salmon Fisheries – Marine and Inland Fisheries" - Counterpoint Consulting – April 26th 2014.
[20] Personal communication from Greg Taylor, Fish First Consulting.
[21] See, for example, "Local Salmon Management: A Proposal for Co-operative, Community-Based Management of Canada's Pacific Salmon Resource" – Department of Fisheries and Oceans Discussion Paper – January 29th 1993.

Objective 2: Increased Economic/Financial Benefit from Fishing

Change in Total Net Income from Fishing: The projected impacts of the assumed price increase and an assumed ESSR agreement between tidal fishers and First Nations on net income of the various area fleets are laid out in Table 7 below. Table 8 provides equivalent estimates for First Nations fisheries.

Table 7
Potential Economic/Financial Impacts of Change Approach 2
On Area Fleets

Fleets	Value Added Impacts ($000)	Wage Impacts Crew ($000)	Wage Impacts Skippers ($000)
A	235	101	41
B	490	215	87
Seine	**725**	**216**	**128**
C	203	28	107
D	11	13	49
E	67	6	46
Gillnet	**281**	**47**	**202**
F	323	87	107
G	97	24	49
H	30	5	15
Troll	**450**	**116**	**171**
All Fleets	**1,456**	**379**	**501**

It can be seen that the projected impacts of this change proposal on the various area fleets is generally positive resulting in about a $1.5 million increase in value added. About half of these benefits are forecast to accrue to the seine fleet, and the remaining half is distributed about two thirds and one third between the troll and gillnet fleets respectively. It should be emphasized that the majority of these benefits accrue as a result of the assumed price increases used in this analysis. The inclusion of ESSR in the sharing arrangement only adds about an estimated $67 thousand in value added to the marine fisheries. Most of this (80%) would accrue to the area C gillnet fleet under the assumed sharing arrangements in the fishery. However, even in area C this represents a small portion of the total impact on value added.

On the other side of the equation, there are some negative implications for First Nations (see Table 8). The agreement on ESSR harvest with the marine fishery is estimated to reduce value added in the inland fishery by $67 thousand. However, this loss is more than compensated by gains to coastal First Nations participating in the area licensed coastal fisheries through communal “F” category licenses. A net loss of $15 thousand in value added is estimated to First Nations on the North Coast but an overall coast wide gain of $44 thousand in value added is projected. These projected net gains are again related to the assumed price increases under this change approach. Without the assumed price increase the overall

impact on First Nations would amount to about negative $67 thousand in value added in the inland fishery with compensating benefits to the tidal fishery.

Table 8
Potential Economic/Financial Impacts of Change Approach 2
On First Nations Fisheries

Communal "F" Category Impacts				Inland Fisheries Impacts		Total First Nations Impacts	
Fleets	**Value Added Impacts ($000)**	**Wage Impacts Crew ($000)**	**Wage Impacts Skippers ($000)**	**Value Added Impacts ($000)**	**Wage Impacts ($000)**	**Value Added Impacts ($000)**	**Wage Impacts ($000)**
A	22	9	4				
C	14	2	7				
F	16	4	5				
Total North	**52**	**15**	**16**	**-67**	**0**	**-15**	**31**
B	35	15	6				
D	2	3	10				
E	3	0	2				
G	18	5	9				
H	1	0	1				
Total South	**59**	**23**	**28**	**0**	**0**	**59**	**51**
All Areas	**111**	**38**	**44**	**-67**	**0**	**44**	**82**

Change in Fishing Income by Social Group: The projected impact on fishing income in the area licensed fisheries is universally positive (see Table 7). The anticipated total impact on wages of both crew and skippers in the fishery is close to $900 thousand. About 60% of this accrues to skippers in the various fleets and the balance to crew in the fisheries.

The overall impact on First Nations fishing income is also positive under these assumptions (see Table 8). The agreement with coastal harvesters on ESSR is anticipated to allow this in-river harvest to continue with no change in wages paid. At the same time there are projected income gains to coastal First Nations participating in the area based fisheries. Total income gains of more than $80 thousand are anticipated coast-wide about 40% in the north and the balance in the south. These specific results entirely depend upon the 5% price increases assumed in the analysis. Without the price increase there would be no impact (either positive or negative) on wage income in First Nations fisheries.

Likelihood of Increased Management Costs to DFO: To establish and maintain a catch sharing system at the localized level proposed here may require some additional stock assessment activities by DFO. The extent of these activities remains uncertain but some increased management costs are likely. In addition, the requirement for business arrangements to be made between different fishing groups in advance of any in-season allocation transfers in the system may impact DFO costs. Fleets are not themselves legal entities that can enter into business arrangements. DFO may need to be involved at least initially and perhaps permanently in establishing, administering and enforcing some administrative system to facilitate inter-fleet trading of allocations.

Objective 3: Increased Social Values from Fishing

Change in Number of Fishers by Fishery and by Social Group: The assumption of increased landed prices used in this analysis will increase landed values in the area licensed fisheries. This is likely to increase the number of operating vessels in each fishery. It is assumed that the response will be directly proportional to the estimated increase in landed value in each fleet. The projected implication of this in terms of operating vessel numbers and employment in each area licensed fleet is laid out in Table 9 below.

Table 9
Potential Social Impacts of Change Approach 2
On Area Fleets

Fleets	Impact on Operating Vessel Numbers	Average Crew Size	Impact on Skipper Numbers	Impact on Crew Numbers	Total Employment Impact
A	2	5	2	10	12
B	5	5	5	20	25
Seine	**7**		**7**	**35**	**44**
C	18	1.4	18	7	25
D	13	1.4	13	5	18
E	12	1.2	12	2	14
Gillnet	**43**		**43**	**14**	**57**
F	6	2.3	6	8	14
G	4	1.8	4	3	7
H	2	1.5	2	1	3
Troll	**12**		**13**	**12**	**24**

There is a projected modest increase in the number of operating vessels in all of the various fisheries. This will directly increase the number of skippers and crew employed in each fishery. It should be emphasized that these numbers are not strictly additive within gears or across gears because of the phenomenon of multiple licensing where individual vessels are licensed to operate in a number of different area fisheries. However, the numbers do indicate an increase in participation and the number of persons actively employed in all areas. The number of actual persons employed will increase but to a lesser extent than indicated here.

Estimated impacts on First Nations employment are provided in Table 10. The overall impact on First Nations employment is estimated at 13 additional persons employed. The majority of these are skippers and largely in the gillnet fisheries.

Table 10
Potential Social Impacts of Change Approach 2
On First Nations

Communal "F" Category Impacts				Inland Fisheries Impacts	Total First Nations Impacts
Fleets	**Impact on Skipper Numbers**	**Impact on Crew Numbers**	**Total Employment Impact**	**Employment Impact (persons employed)**	**Employment Impact**
A	0	1	1		
C	2	0	2		
F	0	0	0		
Total North	**2**	**1**	**3**	**0**	**5**
B	0	1	1		
D	3	1	4		
E	1	0	1		
G	1	1	2		
H	0	0	0		
Total South	**5**	**3**	**8**	**0**	**8**
All Areas	**7**	**4**	**11**	**0**	**13**

Change in Average Days Fishing by Fishing Vessel: Under this change approach the value of the harvest is assumed to increase by 5%. This increase in landed value is anticipated to proportionately increase the number of operating vessels in the fisheries. In turn, this will proportionately decrease the average number of fishing days per vessel in the coastal fisheries.

Potential Improvements to Safety in the Fishery: There is no basis to believe that any significant safety improvements would result from the implementation of this change proposal.

Objective 4: Improved Financial and Social Viability from Fishing

Changes in Average Income per Vessel by Fishery: As total landed value in each fishery changes under this change approach it has been assumed that the number of operating vessels in the fishery will change proportionately. At the same time there is no basis to believe that average fishing costs will change. As a result, average landed value, net income or value added per vessel in all fisheries will remain unchanged under this approach.

Changes in Average Income by Social Group: Since average landed value in each fishery remains unchanged given the assumptions made, no change in average income by social group is anticipated.

Objective 5: Improved Clarity and Fairness when Allocations are transferred

Clarity of Allocation Arrangements: Clarity refers to the transparency of the allocation arrangements among fleets and between fleets and First Nations. Under present policy, the privilege to harvest ESSR is provided to First Nations on a priority basis. This change approach implies that the majority of this privilege rests with the area based marine fishing fleets and any decision to transfer this privilege rests with the area based fleets. It is unclear whether this further clarifies or simply changes established allocation arrangements.

On the other hand, the proposed changes do strengthen the privileges of the parties associated with allocations. Transfer of uncaught allocations between fleets and between fleets and First Nations could only be made subject to agreement between parties. In the case of ESSR this change is particularly important. Under the present system there is a perception that ESSR harvests can be dramatically increased without consideration for the adversely affected coastal fleets. Under the proposed new system, harvest of increased ESSR allocations would require agreement of and/or compensation to the impacted party or parties.

Are Transferability Provisions Clarified: Under present policy, management decisions to transfer allocations among fleets and between fleets and First Nations are unilaterally made by the Department. Under this change approach, any harvest of ESSR allocations by First Nations would require an agreement between the coastal fleets and any transfer of allocations between the area based fleets would require business arrangements to be established. In effect, the Department's decision-making authority would be limited to determining whether an established allocation can be harvested by any given fleet. The decision to permit another party to harvest the unused allocation would be subject to the agreement of the impacted party. This would certainly clarify the provisions for transfer.

Objective 6: Improved Governance of the Fishery

Potential for Other Rules and Regulations to be relaxed: Given the relatively modest changes to the allocation system proposed under this change approach, it is not anticipated that any of the current rules and regulations around fishing could be relaxed.

Potential for Improved Management Arrangements with First Nations: The substantive change in the treatment of ESSR harvest proposed under this approach may undermine the potential for improved management arrangements with First Nations. At the same time, the establishment of an explicit allocation for First Nations may encourage the development of improved management arrangements.

Potential for more Co-operative Planning among First Nations, DFO and commercial interests: The substantive change in the treatment of ESSR harvest could undermine the potential for improved co-operative planning among First Nations, DFO and commercial interests. At the same time, the requirement for negotiated agreement between the parties might improve the potential for improved co-operation.

Overall there is a modest prospect for improved governance of the fishery under this change approach.

Objective 7: Improved Resource Sustainability

Is Improved Catch Monitoring and Reporting Required: The proposed change approach maintains all of the relevant elements of the current management system. No improvements to catch monitoring or reporting are required.

Potential to Improve Adherence to Selective Fishing Standards: There is no reason to believe that adherence to selective fishing standards would improve.

Change Approach 3 (Middle Ground 2):

As in change approach 2, change approach 3 proposes to establish target shares of the TACC at a more disaggregated level for each species by production area, fleet/gear type and for First Nations based upon relinquished licences. However, ESSR is not considered to be part of the TACC and is not subject to fleet wide sharing arrangements. Further, change approach 3 does not call for any change in the present transferability provisions for uncaught allocations between fleets. Decision making authority to transfer uncaught allocations from one fleet to another fleet or from fleets to First Nations would remain exclusively with the Department. However, the provisions for transfer of allocations from fleets to First Nations Economic Opportunity and Demonstration fisheries would be substantively modified. Revised transferability provisions would provide for First Nations allocations in inland fisheries to be based upon the average production of participating vessels in the fishery rather than the entire fleet of eligible licence holders.

In order to model this approach we have looked at the base case number of active vessels in each fishery and compared it to the current number of eligible vessels in each fishery. On this basis we identified an adjustment factor to the share assigned to First Nations in-river fisheries under present policy and procedures. This adjustment factor ranges from 2.19 for Area A where less than half of the eligible licence holders were active in the fishery on average to 1.48 for Area D where about two thirds of eligible licence holders were active. Using these adjustment factors, the current base case First Nations in-river harvest of each species was increased. These projected harvest increases were then reallocated from the established tidal water fisheries according to base case sharing arrangements.

Like change approach 2, under change approach 3 the greater stability associated with the new fixed local sharing system may encourage better marketing of local products. For consistency we have also assumed a general 5% increase in the price of salmon under this approach.

Objective 1: Greater Certainty of Access

Duration of the Allocation Agreement: Under the present system allocations in local areas can change from year to year with changes in relative prices and the relative abundance of different species coast-wide. This change approach would eliminate two elements of uncertainty with respect to local sharing arrangements by fixing the shares of each species in individual areas over a longer time period or even permanently.

A Specific Allocation for First Nations: The proposal calls for the establishment of a specific allocation for First Nations based upon the inventory of relinquished licences held by DFO on behalf of First Nations. Under this change approach the allocation would be based upon the average production of the active vessels in each area licensed fleet.

Projected Change in the TACC harvested: There is a considerable literature that stresses the advantage of more localized approaches to fishing in terms of improved co-operation between fishers that can

facilitate improved access to fisheries when abundances are low.[22] This change approach does localize fishing to some extent over the current area based licensing system. This approach also calls for the establishment of by-catch allocations for non-target species. Consequently, some marginal increase in the proportion of TACC harvested may be possible. However, there is insufficient information available to quantitatively estimate this.

Overall this approach may modestly improve the level of certainty around access but the retention of DFO authority to re-allocate between fleets and to First Nations ESSR fisheries would remain contentious for some.

Objective 2: Increased Economic/Financial Benefit from Fishing

Change in Total Net Income from Fishing: The projected impacts of the assumed price increase and the change with respect to the establishment of First Nations in-river allocations on net income of the various area fleets are laid out in Table 11 below. Table 12 provides equivalent estimates for First Nations fisheries.

Table 11
Potential Economic/Financial Impacts of Change Approach 3
On Area Fleets

Fleets	Value Added Impacts ($000)	Wage Impacts Crew ($000)	Wage Impacts Skippers ($000)
A	-10	-4	-2
B	-846	-372	-150
Seine	**-856**	**-376**	**-152**
C	-258	-47	-183
D	-21	-24	-91
E	-119	-11	-83
Gillnet	**-398**	**-82**	**-357**
F	295	79	98
G	-20	-5	-10
H	-36	-6	-18
Troll	**239**	**68**	**70**
All Fleets	**-1,015**	**-390**	**-439**

In spite of the assumed price increase the projected impacts of this change proposal on the various tidal fishing fleets is negative resulting in about a $1.0 million decrease in value added. The vast majority of these losses are projected for the seine fleets and particularly Area B largely due to increased inland harvests of Fraser River sockeye. Within the gillnet sector, impacts on the Area C fleet are particularly pronounced due to the increased First Nations inland harvest of Skeena River sockeye salmon. On a coast-wide basis the troll fleet is actually projected to benefit under this change approach. Modest reductions in value added for both the southern troll fleets (Areas G and H) are more than compensated by a substantial increase in value added for the northern troll fleet (Area F).

[22] See, for example, "Local Salmon Management: A Proposal for Co-operative, Community-Based Management of Canada's Pacific Salmon Resource" – Department of Fisheries and Oceans Discussion Paper – January 29th 1993.

It needs to be emphasised without the assumed price increase under this change approach, the coast-wide projected losses in value added to the area based fleets would approximately double. In terms of distribution between fleets, the projected gains to the Area F fleet would be replaced by a modest loss of value added. The losses to all other fleets would be substantially increased.

On the other side of the equation, the overall impact on First Nations is generally positive (see Table 12). There is a projected $1.3 million increase in value added from First Nations in-river fisheries. About one third of this accrues to the North and two thirds to the south. These gains are partially offset by losses to coastal First Nations operating in the area based fisheries through category "F" licences. However, the overall value added benefits to First Nations coast-wide still exceeds $1.1 million.

Table 12
Potential Economic/Financial Impacts of Change Approach 3
On First Nations Fisheries

Communal "F" Category Impacts				Inland Fisheries Impacts		Total First Nations Impacts	
Fleets	**Value Added Impacts ($000)**	**Wage Impacts Crew ($000)**	**Wage Impacts Skippers ($000)**	**Value Added Impacts ($000)**	**Wage Impacts ($000)**	**Value Added Impacts ($000)**	**Wage Impacts ($000)**
A	-1	0	0				
C	-17	-3	-12				
F	14	4	5				
Total North	**-4**	**1**	**-7**	**404**	**178**	**400**	**172**
B	-60	-26	-11				
D	-4	-5	-19				
E	-6	-1	-4				
G	-4	-1	-2				
H	-1	0	-1				
Total South	**-157**	**-33**	**-75**	**923**	**477**	**766**	**369**
All Areas	**-153**	**-32**	**-98**	**1,327**	**655**	**1,166**	**541**

Change in Fishing Income by Social Group: The projected impacts on wage income in the tidal fisheries are generally negative (see Table 11). The anticipated total loss to wages of both crew and skippers in the fishery is more than $800 thousand and this is fairly equally divided between both crew and skippers in the fishery.

The overall net impact on First Nations fishing income is positive (see Table 12). The wage income gains to participants from increased in-river harvests are estimated at about $650 thousand. Even after accounting for the offsetting income loss to First Nations skippers and crew participating in the tidal fisheries, the wage income gain to First Nations fishers is estimated at more than $500 thousand.

Again it is emphasized that the projected losses in the marine fisheries would be considerably larger in the absence of the assumed 5% general increase in landed prices for salmon. This would also reduce the projected gains to First Nations under this change approach.

Likelihood of Increased Management Costs to DFO: To establish and maintain a catch sharing system at the more localized level proposed here may require some additional stock assessment activities by DFO. The extent of these activities remains uncertain but some increased management costs are likely although these costs are likely to be lower than under change approach 2. There is no requirement under this change approach for the Department to become involved in establishing or monitoring an allocation trading system between fleets.

Objective 3: Increased Social Values from Fishing

Change in Number of Fishers by Fishery and by Social Group: Even with the assumption of increased landed prices used in this analysis, the transfer of additional harvest to inland areas substantially reduces landed values in most of the area licensed fisheries. This is likely to decrease the number of operating vessels in each fishery. As in Change Approaches 1 and 2 we assume the response is directly proportional to the estimated change in landed value in each fleet. The projected implication of this in terms of operating vessel numbers and employment in each area licensed fleet is laid out in Table 13 below.

Table 13
Potential Social Impacts of Change Approach 3
On Area Fleets

Fleets	Impact on Operating Vessel Numbers	Average Crew Size	Impact on Skipper Numbers	Impact on Crew Numbers	Total Employment Impact
A	0	5	0	0	0
B	-9	5	-9	-36	-45
Seine	**-9**		**-9**	**-36**	**-45**
C	-32	1.4	-32	-13	-45
D	-24	1.4	-24	-10	-34
E	-21	1.2	-21	-4	-25
Gillnet	**-77**		**-77**	**-27**	**-104**
F	6	2.3	6	8	14
G	-1	1.8	-1	-1	-2
H	-2	1.5	-2	-1	-3
Troll	**3**		**3**	**6**	**9**
All Fleets	**-83**		**-83**	**-57**	**-140**

There is a projected decrease in the number of operating vessels in all of the various fisheries with the exception of Area A and Area F. This will directly decrease the number of skippers and crew employed. The major effect is on the gillnet fisheries where employment is projected to decrease by 104 persons. Substantial impacts are also felt in the seine fleet while there is a positive overall impact of on the troll fleet coast-wide.

Again it is emphasized that these numbers are not strictly additive within gears or across gears because of the phenomenon of multiple licensing in the fisheries. Many vessels are licensed to operate in a number of different area fisheries. However, the numbers do indicate a significant decrease in

participation and the number of persons actively employed in most areas. The number of actual persons employed will decrease but not necessarily to the extent indicated here.

Estimated impacts on First Nations employment are provided in Table 14. There is an anticipated reduction of about 13 persons employed in marine areas. This is offset by a substantial increase of more than 600 persons employed in the in-river fisheries. It should be said that the estimates of increased employment in the in-river fisheries are very rough. In effect, limited employment information from the Skeena River fisheries has been extrapolated coast-wide.

Table 14
Potential Social Impacts of Change Approach 3
On First Nations

Communal "F" Category Impacts				Inland Fisheries Impacts	Total First Nations Impacts
Fleets	**Impact on Skipper Numbers**	**Impact on Crew Numbers**	**Total Employment Impact**	**Employment Impact (persons employed)**	**Employment Impact**
A	0	0	0		
C	-2	-1	-3		
F	0	1	1		
Total North	**-2**	**0**	**-2**	**169**	**164**
B	-1	-2	-3		
D	-5	-2	-7		
E	-1	0	-1		
G	0	0	0		
H	0	0	0		
Total South	**-7**	**-4**	**-11**	**442**	**421**
All Areas	**-9**	**-4**	**-13**	**611**	**585**

Change in Average Days Fishing by Fishing Vessel: Under this change approach a substantial quantity of harvest and harvest value is re-allocated to the First Nations in-river fisheries. The reduction in landed value of the harvest would decrease the number of operating vessels in the fishery. At the same time a general increase of 5% in the landed prices of salmon has been assumed in this analysis. This would tend to offset the projected decrease in operating vessel numbers. On net there may be a modest decrease in average number of fishing days by fishing vessel under this change approach.

Potential Improvements to Safety in the Fishery: There is no basis to believe that any significant safety improvements would result from the implementation of this change proposal.

Objective 4: Improved Financial and Social Viability from Fishing

Changes in Average Income per Vessel by Fishery: As total landed value in each fishery changes under this change approach it has been assumed that the number of operating vessels in the fishery will change proportionately. At the same time there is no basis to believe that average fishing costs will change. As a result, average landed value, net income or value added per vessel in all fisheries will remain unchanged under this approach.

Changes in Average Income by Social Group: Since average landed value in each fishery remains unchanged given the assumptions made, no change in average income by social group is anticipated.

Objective 5: Improved Clarity and Fairness when Allocations are transferred

Clarity of Allocation Arrangements: Under this proposal allocations to First Nations are based upon the average production of active vessels rather than the average production of all eligible licence holders in a fishery. While this changes it does not further clarify allocation arrangements.

Are Transferability Provisions Clarified: Transferability provisions between fleets would remain unchanged from the base case under this proposal. Decisions to move uncaught allocations from one fleet to another and from the fleets to First Nations ESSR fisheries would remain at the sole discretion of the Department.

Objective 6: Improved Governance of the Fishery

Potential for Other Rules and Regulations to be relaxed: Given the relatively modest changes to the allocation system proposed under this change approach, it is not anticipated that any of the current rules and regulations around fishing could be relaxed.

Potential for Improved Management Arrangements with First Nations: The dramatically increased allocations for in-river fisheries under this proposal may encourage improved management arrangements with First Nations.

Potential for more Co-operative Planning among First Nations, DFO and commercial interests: The dramatically increased allocations for in-river fisheries at the expense of marine fleets may substantially undermine the potential for improved co-operative planning among First Nations, DFO and commercial interests.

Objective 7: Improved Resource Sustainability

Is Improved Catch Monitoring and Reporting Required: The proposed change approach maintains all of the basic elements of the current management system. No improvements to catch monitoring or reporting are required.

Potential to Improve Adherence to Selective Fishing Standards: There is no reason to believe that adherence to selective fishing standards would improve.

Change Approach 4 (Most Extensive Change):

As in change approaches 2 and 3, change approach 4 proposes to establish target shares of the TACC at a more disaggregated level for each species by production area, fleet (gear type) and for First Nations based upon relinquished licences. However, this approach goes considerably further by allocating individual shares of the harvest to each licence holder in all area licensed fisheries. These specific shares

would be established on the basis of equal shares of the allowable catch to all eligible licence holders in each fishery.

Transferability of individual shares within and between fleets would be subject to market transactions between individual fishers but subject to rules designed to prevent concentration of licence holdings in too few hands and protect the long term viability of the established fleets within the fishery. Specifically, these transfers would be temporary (for one year) and subject to maximums on total holdings by individual fishers and by fleets. Transfers between fleets and First Nations would be provided on both a temporary and a longer term basis but not subject to maximums. In effect, this proposal would formalize the procedures that DFO currently uses for assigning harvest to First Nations inland fisheries based upon the average harvest of all eligible licence holders in a fishery applied to its unallocated inventory of relinquished licences.

There is an extensive experience with these types of individual quota systems both internationally and domestically. There are many British Columbia fisheries that have been managed under similar systems for many years. A number of these are also subject to rules similar to those proposed to prevent concentration of licence holdings and other effects deemed undesirable. In addition, there have been a number of demonstration and pilot projects in recent years that have attempted to test elements of this type of management system in the salmon fishery. All of this experience can provide some guidance to the potential effects.

In order to model this approach we have looked at the related literature but have particularly focussed on British Columbia fisheries managed under these systems and recent demonstration and pilot projects in the salmon fishery. Given the unique aspects of the salmon resource and its management, it is difficult to generalize the experience from other fisheries to salmon.

One relatively consistent conclusion from most reviews of individual quota fisheries is a tendency towards improved landed prices. This is generally posited to result from two related effects. First, competition between fishers over harvest quantity is eliminated and the incentive structure for the individual fisher is solely focussed on increasing value of the limited harvest available. Second, since individual quota systems generally facilitate slower and more controlled fishing operations without fear of losing harvest, more time is available for better treatment of the catch and quality improvements. A good illustration of this has been the BC commercial halibut fishery. After the implementation of individual quotas the season was extended from a few days to 300 plus days per year. This facilitated access to a lucrative year round fresh market for halibut products and this appears to have increased prices in the fishery by more than 40%.[23]

[23] G.S. Gislason and Associates in association with Edna Lam Consulting and Christopher Sporer Consultants Ltd. "Employment Impacts of ITQ Fisheries in Pacific Canada" – Page 17. It should also be noted that this study reviews 4 additional Pacific fisheries that are presently managed under Individual Quota systems (Sablefish, Groundfish Trawl, Geoduck, Red Sea Urchin) as well as the Area F Chinook IQ trial in the salmon fishery. In all of these cases the study finds evidence of increased prices subsequent to individual quota management. The most dramatic price increase (about 240%) is reported for the Geoduck clam fishery. Here the movement to individual quota management facilitated access to a lucrative niche market in Asia for live geoduck products.

The potential for equivalent landed price increases in the salmon fishery under an individual quota system is low. In troll fisheries focussed on Chinook and coho salmon, significant extension of the fishing season under an individual quota system may be possible. However, experience with individual quota trials on Area F Chinook indicate that this potential may be significantly constrained by mixed stock management issues. In the net fisheries the nature of the species biology and the timing of salmon runs do not lend themselves well to more than modest extension of the fishing season and certainly insufficient to service a year round fresh market. There is some indication that prices for Chinook salmon have increased by about 15% as a result of the ITQ trials in Area F troll.[24] However, this conclusion needs to be qualified because there was an apparent coincident reduction in market quantities available. The impacts on prices in other individual quota trials within the salmon fishery are uncertain.

In assessing change approaches 2 and 3 we have assumed that more localized fishing and the improved certainty in the allocation system will result in a general increase of 5% in the landed prices of salmon. In change approach 4 a general price increase of 10% in the landed prices for salmon is assumed to result from the implementation of individual quotas. In short, it is assumed that individual quotas will provide some further incentive and some further ability to increase catch values in the fishery. However, it is believed that this potential will be modest relative to that achieved in many other fisheries.

Another aspect of importance with this change approach relates to the impact on participation in the fishery. Many fisheries subject to individual quota management systems have seen substantial reductions in the number of operating vessels as a result of quota consolidation. For example, in the Pacific halibut fishery current participation is roughly two thirds of that prior to the implementation of individual quotas.[25] However, on the other side of the equation, some fleets e.g. sablefish have seen only modest reductions in the active fleet.[26] Present participation levels in the salmon fisheries are already quite low only averaging about 50% to 60% of the eligible licence holders in the various fisheries. The experience in Area F troll after implementation of the Chinook individual quota trial in 2005 is also illustrative. Since implementation, the number of active participants has not declined and remained fairly stable at between 140 and 160 vessels. Finally, the proponents of this type of allocation policy

[24] G.S. Gislason and Associates in association with Edna Lam Consulting and Christopher Sporer Consultants Ltd. "Employment Impacts of ITQ Fisheries in Pacific Canada" – Page 61. Also, a number of operational considerations have been raised with the Area F trial. It has been argued that it has not been a true example of individual quota management since for conservation reasons the fishery has been subject to closure before the full TAC is taken. Also, because of licence area re-selection, limited entry has not really applied in Area F. For discussion see Gardner Pinfold Consulting Economists Ltd. – "A Review of Five Demonstration Projects from the 2008 Salmon Season" – Report Prepared for Fisheries and Oceans Canada – October, 2009 and G.S. Gislason and Associates in association with Edna Lam Consulting and Christopher Sporer Consultants Ltd. "Employment Impacts of ITQ Fisheries in Pacific Canada".

[25] G.S. Gislason and Associates in association with Edna Lam Consulting and Christopher Sporer Consultants Ltd. "Employment Impacts of ITQ Fisheries in Pacific Canada" – Page 17.

[26] G.S. Gislason and Associates in association with Edna Lam Consulting and Christopher Sporer Consultants Ltd. – "Employment Impacts of ITQ Fisheries in Pacific Canada" – Page 25.

change indicate that restrictions would be applied to limit individual quota holdings. This would also tend to limit potential reductions in the number of operating vessels.

Overall there is reason to believe that there may be some decline in the size of the active fleet if individual quotas are implemented in the salmon fishery but little reason to believe that this reduction will be significant from current levels. For analysis purposes a general 10% decrease in the active fleet size with implementation of this change approach is assumed. [27]

A final aspect of importance with this change approach is its potential impacts on fishing costs. Individual quota fisheries require substantially enhanced catch monitoring and reporting systems than competitive fisheries to ensure that quotas are adhered to and to avoid high grading, dumping and other negative potential effects. This entails significant costs for enhanced monitoring of harvesting operations, dockside monitoring of the landings and the development of real time tracking and reporting systems in the fishery. Generally the costs for these enhancements have been borne by the participants in the fisheries where individual quota systems have been implemented. To reflect this we have increased the average fishing costs in each area fishery by $2,500 under this change approach.[28]

Objective 1: Greater Certainty of Access

Duration of the Allocation Agreement: Under the present system allocations in local areas can change from year to year with changes in relative prices and the relative abundance of different species coast-wide. This change approach would eliminate several elements of uncertainty with respect to the sharing arrangements by fixing the shares of each species in individual areas and for individual fishers on a longer term or even permanent basis.

A Specific Allocation for First Nations: The proposal calls for the establishment of a specific allocation for First Nations based upon the inventory of relinquished licences held by DFO on behalf of First Nations. Under this allocation change approach, the Department's current procedures for establishing a First Nations inland allocation would be formalized. In addition, a specific allocation would be associated with communal category "F" licences issued by the Department to individual First Nations from its inventory.

[27] As noted above individual quota trials have been ongoing in some fisheries for a number of years. There is a question whether any potential fleet reductions have already been realized in these fisheries. However, these trials are limited to some species in some production areas. The modest reduction in operating vessels assumed here is believed to reflect a remaining potential.

[28] This estimate is derived from earlier work by Fraser and Associates (See: "A Preliminary Review of the Groundfish Integration Pilot Program" report prepared for the Groundfish Management Unit, DFO Pacific – August, 2008). This report estimates average costs per vessel in these fisheries for dockside monitoring and associated activities of $1902 per annum. It is assumed that an additional $500 to $600 per vessel would be needed for system maintenance and so on. On board camera equipment is also generally required in the ground fisheries with additional associated capital costs. It is assumed that this would **not** be required in the salmon fisheries.

Projected Change in the TACC harvested: One study of individual quota management in British Columbia suggests that there have been dramatic increases in the TACC in some fisheries.[29] The major factor noted is that in some fisheries prior to the introduction of individual quotas there was little ability to fish to the established TACC level. As a result, TACC's were declining over time with falling biological production and there was a tendency by management to establish more conservative TACC's in anticipation of the over-harvesting.

It is not believed that the conditions described apply in the BC salmon fishery. Because of its intensive management and the risk adverse approaches used, salmon harvest appears to be generally maintained within the established TACC's under current management. As a result we do not believe that there is any significant potential for an increase in the TACC to result from individual quota management.

Other literature on individual quota management stresses the ability of the systems to facilitate access to "small bite" fisheries. Because quotas directly limit the quantity of harvest, continued fishing may be permitted even where abundances are low. In contrast, where abundances are low, full scale competitive fisheries may not be permitted because of conservation concerns. A movement to individual quota management may facilitate some improvement in the proportion of the established TACC actually harvested. We believe there is some potential for this in the salmon fishery.

To estimate this potential, the harvest statistics by species and production area were re-visited and compared to the estimated TACC's. This was not equally feasible for all areas of the coast or for all species. Many salmon fisheries are managed to an exploitation rate rather than a formal TACC and in these instances there is no formal escapement target.[30] However, for three species and five individual production areas some comparative figures could be derived. In summary, there do appear to be some surpluses of pink, sockeye and Chinook salmon in some areas that it may be feasible to at least partially access under an individual quota system.

The major potential appears to be with Fraser River pink salmon where an annual average of more than 2 million fish might become more accessible. This could amount to a more than fourfold increase in the current average harvest from this production area. A major constraint on current access results from co-migrating sockeye salmon. Demonstration projects seem to indicate an ability to minimize impacts on these co-migrating stocks by implementing individual quotas. At the same, later constraints on the fishery relate to overlap with coho salmon run timing and significant coho salmon conservation concerns. These may be more difficult to address. For analysis purposes it is assumed that 60% of the annual average of 2 million fish will become available under an individual quota system. This amounts to 100% of the surplus available prior to the usual coho closure date in early September and implies almost tripling the base case average catch of these fish.

The potential with sockeye and Chinook salmon appears to be more limited. There is some indication of the availability of some sockeye surpluses on the Fraser River. However, the overlapping of the various

[29] G.S. Gislason and Associates in association with Edna Lam Consulting and Christopher Sporer Consultants Ltd. - "Employment Impacts of ITQ Fisheries in Pacific Canada".
[30] In these fisheries the harvest effectively equals an assumed TACC.

timing groups on the River and the inability to distinguish between them during harvest would likely to limit the ability to increase the harvest. Similar problems exist in the north and off the west coast of Vancouver Island with respect to chinook salmon. Although surpluses of some stocks may exist, the inability to distinguish between these and the other constraining stocks during harvest would likely limit the ability to increase the harvest under an individual quota system.

Objective 2: Increased Economic/Financial Benefit from Fishing

Change in Total Net Income from Fishing: The projected impacts of the assumed price increase, the reduction in active fleet size, increased average fishing costs and a 1.4 million piece increase in the harvest of Fraser River pink salmon are laid out Table 15 below. Table 16 provides equivalent estimates for First Nations fisheries.

Table 15

Potential Economic/Financial Impacts of Change Approach 4
On Area Fleets

Fleets	Value Added Impacts ($000)	Wage Impacts Crew ($000)	Wage Impacts Skippers ($000)
A	823	204	82
B	3,451	983	394
Seine	**4,274**	**1,187**	**476**
C	664	54	215
D	226	25	101
E	135	12	101
Gillnet	**1,025**	**91**	**417**
F	950	174	214
G	307	49	98
H	105	12	38
Troll	**1,362**	**235**	**350**
All Fleets	**6,661**	**1,513**	**1,243**

The projected impacts of this change proposal on the various coastal area fleets are universally positive resulting in about a $6.7 million increase in value added. About two thirds of this accrues to the seine fleet and the vast majority of this to Area B because of its assumed access to presently unutilized surpluses of Fraser River pink salmon. However, both gillnet and troll fleets see increases of more than $1 million in value added as a result of increased prices and decreased operating costs with smaller fleets. This is achieved in spite of the increased costs associated with the enhanced catch monitoring and reporting systems required by this management approach.

The impacts on coastal First Nations are also universally positive. For the coastal First Nations component of the First Nations share, since category “F” licences are communally held and the major priority for most First Nations is maintenance of employment, we have assumed that there will be no reduction in the number of category “F” vessels participating in the fishery under this change approach. As a result, the impacts on First Nations are somewhat enhanced relative to those on the fleets in

general. Overall we project about an $800 thousand increase in value added to "F" category participants in the area licensed fisheries. This amounts to about 12% of the value added increase to the area licensed fleets relative to about a 9% share of the eligible licenses in these fisheries.

Under this change approach we do not anticipate any changes to First Nations in-river fisheries. As a result, the impacts on First Nations through "F" category licences represent all of the anticipated impacts.

Table 16
Potential Economic/Financial Impacts of Change Approach 4
On First Nations Fisheries

Communal "F" Category Impacts				In-River Fisheries Impacts		Total First Nations Impacts	
Fleets	**Value Added Impacts ($000)**	**Wage Impacts Crew ($000)**	**Wage Impacts Skippers ($000)**	**Value Added Impacts ($000)**	**Wage Impacts ($000)**	**Value Added Impacts ($000)**	**Wage Impacts ($000)**
A	132	43	17				
C	70	8	31				
F	87	19	23				
Total North	**289**	**70**	**71**	**0**	**0**	**289**	**141**
B	349	112	45				
D	58	12	46				
E	15	1	11				
G	107	21	41				
H	7	1	3				
Total South	**536**	**147**	**146**	**0**	**0**	**536**	**293**
All Areas	**825**	**217**	**217**	**0**	**0**	**825**	**434**

Change in Fishing Income by Social Group: The projected impacts on wage income in the area licensed coastal fisheries is also universally positive (see Table 15). The anticipated total gain in wages of both crew and skippers in the fishery is more than $2.7 million with about 60% of this accruing to crews in the fisheries.

The overall impact on First Nations fishing income is also positive (see Table 16). The wage gains to participants in the tidal fisheries is estimated at more than $400 thousand and this is equally divided between crews and skippers in the various fisheries.

Likelihood of Increased Management Costs to DFO: To establish and maintain a catch sharing system at the more localized level proposed here may require some additional stock assessment activities by DFO. The extent of these activities remains uncertain but some increased management costs are likely. In addition, experience with trial and demonstration fisheries have indicated a need for increased monitoring of the fisheries by DFO staff or contract personnel. This will further increase DFO management costs.

Objective 3: Increased Social Values from Fishing

Change in Number of Fishers by Fishery and by Social Group: Unlike the other management approaches assessed in this study participation in the fisheries may not be directly related to landed values. Evidence from other fisheries where individual quota management approaches have been implemented indicates a high potential for reduced participation as quotas are consolidated on fewer vessels to take advantage of cost efficiencies. The amount of reduced participation that can be expected is uncertain and certainly varies substantially from fishery to fishery. In this study we have assumed for the purposes of analysis a 10% reduction in the number of vessels actively engaged in each area licensed fishery.

The implications of this in terms of employment are laid out below in table 17.

Table 17
Potential Social Impacts of Change Approach 4
On Area Fleets

Fleets	Impact on Operating Vessel Numbers	Average Crew Size	Impact on Skipper Numbers	Impact on Crew Numbers	Total Employment Impact
A	-5	5	-5	-20	-25
B	-10	5	-10	-40	-50
Seine	**-15**		**-15**	**-60**	**-75**
C	-37	1.4	-37	-15	-52
D	-26	1.4	-26	-10	-36
E	-24	1.2	-24	-5	-29
Gillnet	**-87**		**-87**	**-30**	**-117**
F	-13	2.3	-13	-17	-30
G	-8	1.8	-8	-6	-14
H	-3	1.5	-3	-2	-5
Troll	**-24**		**-24**	**-25**	**-49**
All Fleets	**126**		**126**	**115**	**241**

There is a projected decrease of 126 operating vessels in all of the various fisheries. This will directly decrease the number of skippers. The number of crew employed is anticipated to decline by about 115 persons. About half of the total reductions will be felt in the gillnet fisheries where total employment is projected to decrease by 117 persons. Substantial impacts are also felt in the seine fleet where crew numbers are anticipated to decline by about 60 persons.

Again it is emphasized that these numbers are not strictly additive within gears or across gears because of the phenomenon of multiple licensing in the fisheries. Many vessels are licensed to operate in a number of different area fisheries. However, the numbers do indicate a significant decrease in participation and the number of persons actively employed in all areas. The number of actual persons employed will decrease but not necessarily to the extent indicated here.

There are no impacts anticipated on First Nations employment in the fisheries. As noted above, because of communal licensing and the priority of First Nations to maintain employment it is assumed that

participation of the "F" category fleet will remain unchanged. At the same time, there are no impacts on the First Nations inland fisheries under this change approach.

Change in Average Days Fishing by Fishing Vessel: Under this change approach harvests are anticipated to be maintained at present levels for most species and in most areas but may be enhanced through improved access to Fraser River pink salmon. At the same time it is anticipated that the number of operating vessels will decline by 10%. As a result, the average days' fishing by fishing vessels will increase by 10% in most areas and somewhat more in Area B and Areas D, E and H because of enhanced access to Fraser River pinks.

Potential Improvements to Safety in the Fishery: Most reviews of individual quota systems including the demonstration and trial projects in the BC salmon fishery indicate improved safety in fishing operations. It is argued that this results from the elimination of the race for fish, including an improved ability to avoid poor weather conditions and proceed at a slower fishing pace.[31] An alternative view has been offered by Eco Trust Canada. They argue that quota systems offer fishermen market incentives to engage in risky behaviour. Specific issues raised include encouraging fishers to go out with too few crew in order to keep costs down and possibly exposing crews to increased foul weather in order to take advantage of seasonally high prices.[32] Considering both viewpoints, in the balance of probabilities, safety is likely to be marginally improved in the salmon fishery with the implementation of a quota system.

Objective 4: Improved Financial and Social Viability from Fishing

Changes in Average Income per Vessel by Fishery: Total landed value in all fisheries change under this approach as a result of the assumed increase in landed prices. Additional increases are also anticipated in Areas B, D, E and H as a result of potentially improved access to Fraser River pink salmon. At the same time, the number of operating vessels in all fleets is anticipated to decline. The projected impact on the average income per vessel in each fishery is laid out below in Table 18.

[31] Gardner Pinfold – "A Review of Five Demonstration Projects from the 2008 Salmon Season" – Page 59.
[32] See: http://www.ecotrust.org

Table 18
Estimated Changes in Average Value Added per Vessel
By Fishing Fleet under Change Approach 4

Fleet	Base Case Value Added per Vessel ($000)	Revised Value Added per Vessel ($000)	Impact on Value Added per Vessel ($000)
A	91	120	29
B	98	147	49
C	8	11	3
D	1	2	1
E	6	7	1
F	50	63	13
G	25	32	7
H	18	23	5

Changes in Average Income by Social Group: A significant issue under this change approach is leasing of additional quota in the fishery. Under the system proposed, shares would be allocated on an equal basis between all eligible licence holders in the fishery. What this means is that many presently active fishers in each fishery would need to lease additional shares from presently inactive participants in the fishery simply to maintain their current production levels but certainly if they wished to increase their production from present levels. This is an additional financial cost not presently incurred by presently active fishers. At the same time, this is a financial gain to those inactive in the fishery. The overall effect is to change the distribution of the average income in the fishery.

How the additional cost of quota leases is treated in the fishery is also a significant issue. If the additional cost is included prior to the determination of crew and skipper shares it would have a direct impact on the average wage income received by participating fishers. If not included prior to the determination of wage shares the effect would be limited to impacts on the revenue available to the vessel owner to cover depreciation of assets, interest payments on debt, profit from the fishing enterprise and so on.

To estimate the potential impact of quota trading is difficult because it relies upon individual negotiations between fishers. In this study we have assumed that the additional cost is not included prior to the determination of crew and skipper shares. [33] This implies that the amount of revenue on the table in negotiations between the parties is limited to value added available net of wage payments in

[33] We have used this assumption because this issue was raised during the 2008 IQ demonstration fishery for Area A sockeye and pink salmon. An attempt to add the cost of additional quota prior to the determination of crew shares was successfully resisted by the United Fishermen and Allied Workers Union and the Native Brotherhood of BC. (See: Gardner Pinfold – "A Review of Five Demonstration Projects from the 2008 Salmon Season" – page 27). An obvious question is what would happen if the additional cost of quota leases is included prior to the determination of crew and skipper wage shares in the fishery. In short, the payments to inactive fishers would increase at the direct expense of crew and skipper wages. How much the lease payments would increase and the extent to which wage increases would fall would be determined in negotiations between the parties.

the fishery. We have assumed that the entire difference in value added net of wage payments between the base case and this change approach are paid out for quota leases. This amounts to about $3.2 million over the fishery as a whole or between 5% and 6% of the landed value in the fishery.

Given these assumptions, changes in the average income of active and inactive vessel owners and by skippers and crew in the fishery are provided in Table 19 below.

Table 19
Estimated Changes in Average Income by Social Group in the Fishery
Under Change Approach 4

Fleets	Inactive Vessel Owners	Active Vessel Owners	Skippers	Crew
A	$8,400	0	$3,800	$2,396
B	$18,300	0	$6,386	$3,978
C	$1,300	0	$1,305	$815
D	$100	0	$868	$552
E	$200	0	$937	$350
F	$4,400	0	$3,597	$2,284
G	$2,900	0	$2,700	$1,688
H	$1,500	0	$2,211	$1,383

Objective 5: Improved Clarity and Fairness when Allocations are transferred

Clarity of Allocation Arrangements: Under this proposal allocations are provided to individual fishers based upon equal shares of area specific production by licence area and species. This adds substantial clarity to the allocations.

Are Transferability Provisions Clarified: Transferability provisions between fleets and between fleets and First Nations would be based upon market transactions between willing sellers and willing buyers for specific quotas of species and production areas. This would substantially clarify transfer provisions.

Objective 6: Improved Governance of the Fishery

Potential for Other Rules and Regulations to be relaxed: There is substantial potential under individual quota approaches for many existing rules and regulations in the fishery to be relaxed. For example, current limited licensing and vessel replacement rules are based upon the need in competitive fisheries to control fishing effort. Where harvest is directly controlled through individual quotas these licensing and replacement rules generally become redundant. Given multiple licensing of individual salmon fishing vessels for a number of different fisheries under different management regimes, blanket elimination of these rules may be difficult. However, the potential for changing these rules certainly exists.

Potential for Improved Management Arrangements with First Nations: It is not clear that this proposal will encourage improved management arrangements with First Nations.

Potential for more Co-operative Planning among First Nations, DFO and commercial interests: Individual quota management in many fisheries has dramatically improved the level of co-operative planning between DFO and commercial interests. It is not clear that it will improve co-operative planning between DFO, First Nations and commercial interests. Since First Nations generally disapprove of individual quota management approaches it may undermine co-operative planning.

Objective 7: Improved Resource Sustainability

Is Improved Catch Monitoring and Reporting Required: This proposed change approach directly requires improved catch monitoring and reporting systems.

Potential to Improve Adherence to Selective Fishing Standards: In other fisheries evidence indicates that individual quota systems have improved adherence to selective fishing standards.

Summary and Conclusions:

As part of the mitigation program related to recent changes in the Canada-US Pacific Salmon Treaty, DFO has been working with First Nations, commercial harvesters and the Province of British Columbia to update the present "Commercial Salmon Allocation Framework". Discussions between the various parties have focussed on the perceived deficiencies of the present framework, the desired outcomes to be achieved through updating the framework, how performance of possible changes should be measured with respect to these identified outcomes and finally on developing specific proposals for change to the allocation framework.

To assist in further discussion between the parties, this report provides a socio-economic evaluation of various proposals for change suggested by the parties. Specifically it looks at four general approaches to changing the commercial salmon allocation framework. Each of these four general approaches reflects either a specific proposal tabled by an individual participant in the discussions or includes elements of a range of similar proposals received from the participants. Each approach is assessed in relation to the various objectives for change identified by the parties and the performance of each approach is measured through its projected impacts on a variety of specific considerations deemed important by the participants in relation to each identified objective.

Some key conclusions with respect to the four change approaches are drawn here for the consideration of the parties.

Change approach 1 reflects the most modest change to the current allocation framework. This is limited to revising the current sockeye equivalent system for determining shares in the fishery while leaving all other aspects of the framework intact.

Although this approach will eliminate one element of uncertainty in the present allocation system (the relative prices of salmon), its contribution to greater certainty of access is modest at best. While there is

some potential for a small increase in the overall financial benefits from salmon fishing under this approach, the main impact is to re-distribute benefits among the various fleets. Under this proposal some fleets do extremely well while others do poorly. In relation to all other objectives identified by the participants, there is no reason to believe and no indication that this change approach will make any significant positive contribution.

Change approach 2 reflects a more substantial change to the current allocation framework. It includes establishing shares in the fishery at a much more disaggregated local level than at present (i.e. by species, gear and production area) and for longer than an annual time period. In addition, it calls for the transfer of shares among fleets and between fleets and First Nations to be subject to agreement ("business arrangements") between parties.

This approach eliminates two elements of uncertainty with respect to local sharing arrangements – uncertainty around relative prices and around coast-wide abundances. More importantly, although it provides no assurance of access to harvestable surpluses, it provides some basis for compensation (through business arrangements) where access cannot be achieved. In short, this approach may substantially improve certainty with respect to access to salmon resources. As in change approach 1, there is potential for a modest increase in overall financial and social benefits from the resource. However, the distribution of these benefits is more general. All (rather than some) fleets benefit if these increases are realized.

One negative consideration under this change approach results from the inclusion of ESSR in the TACC. This would negatively impact First Nations in-river but generates small and potentially no benefits to the coastal fishing fleets. Eliminating this aspect of this proposal for change would eliminate negative impacts on First Nations while maintaining most of the potential benefits to coastal fleets. In terms of the other objectives identified by the participants the likely performance of change approach 2 is either neutral or modestly positive.

The issue of including or excluding ESSR in the sharing arrangements is difficult. There is a valid concern by coastal fishers that this component of the fishery may substantially increase over time in effect transferring their allocations without compensation. At the same time, First Nations fishers view ESSR as an unavoidable surplus created by valid conservation concerns that is supporting a fishery of modest value but of significant financial and cultural importance to the individuals and the First Nations communities involved. The concept of paying for the privilege of harvesting this does not rest well. This appears to be an area where compromise between the parties would be beneficial.

Change approach 3 also includes establishing shares in the fishery at a much more refined local level than at present (i.e. by species, gear and production area) and for longer than an annual time period. However, transfer arrangements between fleets are maintained as at present. In effect, DFO remains the exclusive decision maker on the transfer of any un-harvested surpluses within the system. In addition, policies with respect to the transfer of allocations to First Nations in-river are substantively changed. Transfers would be based upon the average harvest of active vessels in the fishery rather than the average harvest of all eligible licence holders.

This approach also eliminates two elements of uncertainty with respect to local sharing arrangements – uncertainty around relative prices and around coast-wide abundances. However, in the event that allocations cannot be harvested there is no basis for compensation to the adversely affected party. It is not clear that any contribution to greater certainty of access would be more than modest.

Even with an assumed 5% increase in salmon prices, the overall financial and social impacts of this approach on the coastal fishery is negative. The increased value of harvest as a result of the price increase is more than offset by the need to transfer a substantial share of the harvest to First Nations in-river under the revised transfer provisions. The projected overall loss to the tidal fishing fleets is about $1 million in value added and about $700 thousand in wages to skippers and crew. Employment in the coastal fisheries would also be reduced. While there are substantial benefits to inland First Nations under this proposal and overall net benefits for both coastal and inland First Nations, the impacts on First Nations participating in the coastal fishery are negative. The contribution of this approach to other objectives identified by the participants is either neutral or negative.

Change approach 4 represents the most extensive change to the present allocation system. Not only does it include establishing shares in the fishery at a much more refined local level than at present (i.e. by species, gear and production area) and for longer than an annual time period, but also includes further disaggregating shares at the level of individual licences.

This approach also eliminates two elements of uncertainty with respect to local sharing arrangements – uncertainty around relative prices and around coast-wide abundances. In addition it eliminates uncertainty around sharing arrangements at the level of individual licence holders within the fisheries. As a result, it could substantively improve certainty around access to the salmon resource.

The potential for improved financial values from fishing are potentially greater under this approach. The positive impacts on value added and income from fishing are projected to be several times greater than under change approach 2. On the other hand, social impacts are likely to be negative. The number of operating vessels and the number of crew and skippers employed in the fishery will likely decline although these negative impacts may be avoided by First Nations because of the communal nature of their licensing. The overall impact on the financial and social viability of fishing is likely to be generally positive. Average incomes of crew and skippers in the fishery are projected to increase. This will undoubtedly increase interest in participation in the fishery. Also, owners of inactive vessels in the fishery gain a net benefit from this system through revenues from quota leasing. The impact on owners of vessels active in the fishery (considered separately from owner/skippers) is uncertain but should be no worse than neutral.

With respect to other objectives of allocation policy change identified by the participants, there may also be some positive impacts. For example, there is considerable potential for the relaxation of current rules and regulations in the fishery under this change approach. This may improve governance of the fishery. In addition, the improved catch monitoring and reporting required by this approach may directly improve adherence to selective fishing standards and together this may improve resource sustainability.

Overall, this evaluation indicates that there is no perfect solution to the allocation policy change issue but it does illustrate that certain approaches are definitely better than others. It also illustrates that the contribution of some elements of some change proposals may add little value and these could be considered for elimination or adjustment.

In the first category, both change approaches 1 and 3 primarily impact distribution of harvest and harvest values in the fishery. Although there may be some potential for modest financial and social benefits overall, the distribution of these benefits is skewed. Some fleets or some social groups gain substantially but others lose substantially under these proposals for change. In addition, these change approaches make at best modest contributions to other objectives (such as improved clarity and fairness in the system or improved governance of the fishery) identified by the participants.

In the second category, change approach 2 shows more promise and, if the proposal to include ESSR in the harvest sharing arrangements is eliminated or modified in a mutually acceptable way, it shows substantially more promise. If financial and social benefits could be realized by First Nations as well as other participants in all of the marine fisheries with no loss to First Nations in-river this approach has much to recommend itself. In addition, it is likely to provide very positive impacts in relation to a number of other objectives identified by the participants. In particular, it may improve governance of the fishery through more co-operative planning between First Nations, DFO and commercial interests.

Also in the second category, change approach 4 shows considerable promise. Of all approaches to allocation policy change it is likely to provide the most substantial contribution to certainty in the fishery in terms of access to the resource and to increased financial benefits. It is also the only change approach reviewed that promises to provide improvements to the financial and social viability of fishing (through improvement in average incomes) and to overall resource sustainability. On the other side of the equation, the social impacts on the marine fishery related to employment are likely to be negative and general opposition to individual quota management by First Nations may generally undermine improved governance of the fishery.

This report is intended to assist decision-makers in their deliberations. Unfortunately, it cannot make the decisions easy. It is left to the participants to make their own wise judgements based upon their individual priorities.

Appendix 1

Base Case Forecasts

Table 1.1
Base Case Forecast of Average Annual Commercial Harvest by Species and Production Area (kilograms)

Species	Production Area	Volume Marine (kgs.)	Volume In-River (kgs.)	Total Volume (kgs.)	
Sockeye	North	1,804,411	476,417	2,333,802	**North Coast**
	Central	43,953			
	Rivers/Smith	9,021			
	South Local	497,916	1,124,071	5,480,900	**South Coast**
	South Fraser	3,858,912			
Pink	North	2,779,201	26,445	5,869,455	**North Coast**
	Central	3,063,809			
	Fraser	902,759	730,597	2,068,059	**South Coast**
	Mainland	434,703			
Chum	North 1	168,759	1	2,909,426	**North Coast**
	North 2	236,785			
	Central	2,503,881			
	South Inside	3,510,357	300,766	5,219,020	**South Coast**
	Nitinat	1,114,167			
	South Outside	293,730			
Coho	North	719,129	9,119	728,248	**North Coast**
	South Inside	666	2,571	16,154	**South Coast**
	South Outside	12,917			
Chinook	North	774,926	4,334	808,831	**North Coast**
	Central	29,568			
	South Inside	17,945	46,293	531,724	**South Coast**
	South Outside	467,483			

Table 1.2
Base Case Forecast of Salmon Prices
($)

Species	Marine North ($/kg.)	Marine South ($/kg.)	In-River North ($/kg)	In-River South ($/kg)
Sockeye	$3.87	$2.93	$1.82	$1.93
Pink	$0.55	$0.86	$0.31	$0.28
Chum	$1.70	$1.76	$1.00	$0.97
Coho	$4.38	$2.33	$1.65	$1.65
Chinook	$8.37	$8.17	$3.31	$3.31

Table 1.3
Base Case Forecast of Tidal Harvest Shares by Species,
Production Area, Area Fleet and First Nations "F" Category
(% of total harvest)

Species	Production Area	Fleets and First Nations Shares									
		A	B	C	D	E	F	G	H	Total	Communal "F"
Sockeye	North	20%		79%			1%			100%	7.0%
	Central	95%		5%						100%	9.1%
	Rivers/Smith			100%						100%	6.5%
	South Local		57%		43%					100%	13.1%
	South Fraser		60%		12%	23%			5%	100%	8.0%
Pink	North	81%		13%			6%			100%	8.6%
	Central	100%								100%	9.2%
	Fraser		96%		1%	2%			1%	100%	7.2%
	Mainland	92%			8%					100%	8.2%
Chum	North 1	43%		56%			1%			100%	7.6%
	North 2	25%		75%						100%	7.2%
	Central	48%		52%						100%	7.8%
	South Inside		67%		18%	7%			8%	100%	9.2%
	Nitinat		70%			30%				100%	6.5%
	South Outsid				98%			2%		100%	20.8%
Coho	North	4%		1%			95%			100%	5.1%
	South Inside		80%		3%	4%			13%	100%	7.0%
	South Outsid		11%		40%	3%		46%		100%	18.0%
Chinook	North			3%			97%			100%	4.9%
	Central			100%						100%	6.5%
	South Inside		2%		98%					100%	5.0%
	South Outsid		1%		11%			88%		100%	19.2%

Table 1.4
Historic Participation Rates in Area Licensed Fisheries
(% of Eligible Licence Holders)

Licence Area	2001	02	03	04	05	06	07	08	09	10	11	12	Average 01-04	Average 09-12
A	97	87	78	89	85	80	83	43	64	25	57	37	**88%**	**46%**
B	70	83	81	81	78	90	64	55	65	60	62	52	**79%**	**60%**
C	84	73	67	79	79	80	73	61	66	51	56	60	**76%**	**58%**
D	78	78	78	82	73	91	60	55	57	77	74	61	**79%**	**68%**
E	38	83	80	80	48	93	61	52	48	78	76	43	**70%**	**61%**
F	50	66	82	93	87	71	62	49	53	52	51	57	**73%**	**53%**
G	71	75	66	75	74	82	66	70	61	63	67	59	**72%**	**62%**
H	85	85	77	70	60	89	49	49	47	63	47	29	**79%**	**46%**

Table 1.5
Base Case Projection of the Average Number of Active Vessels in Each Area Licensed Fishery

Licence Area	Projected Participation Rates	Number of Eligible Licence Holders	Projected Number of Active Vessels
A	**46%**	**108**	**50**
B	**60%**	**168**	**101**
C	**58%**	**633**	**367**
D	**68%**	**379**	**258**
E	**61%**	**388**	**237**
F	**53%**	**245**	**130**
G	**62%**	**126**	**78**
H	**46%**	**74**	**34**

Table 1.6
Base Case Estimates of Average Fishing Costs by Fleet
($ per participating vessel)

Area Fleets	A	B	C	D	E	F	G	H
Marketing Levy	$393	$118	$22	$27	$15	$101	$60	$28
Fuel	$15,000	$4,500	$3,000	$2,400	$1,000	$7,000	$4,900	$1,800
DFO Fees/Licences	$3,270	$3,270	$470	$470	$470	$660	$660	$660
Logbooks	$200	$200	$200	$200	$200	$200	$200	$200
Food and Other Crew Costs	$4,500	$1,200	$500	$400	$200	$1,400	$1,500	$200
Shore Labour/Management	$4,000	$4,000	-	-	-	-	-	-
Gear	$4,000	$4,000	$1,000	$1,000	500	$1,000	$1,000	$1,000
Repairs and Maintenance, Insurance, Moorage, Accounting and Legal, Vehicle and Other*	$15,972	$15,972	$4,860	$4,860	$4,080	$6,350	$5,600	$5,600
Estimated Fishing Costs from Gislason for 2009	**$47,335**	**$33,260**	**$10,052**	**$9,357**	**$6,465**	**$16,711**	**$13,920**	**$9,488**
Costs Adjusted by Volume of Catch	**$39,097**	**$42,401**	**$17,220**	**$13,174**	**$11,808**	**$20,080**	**$21,914**	**$12,427**
Costs Adjusted by Average Days Fishing	**$45,699**	**$36,121**	**$14,520**	**$14,455**	**$11,198**	**$17,899**	**$13,973**	**$11,517**
CSAB Independent Estimates	**$65,058**	**$65,094**	**$22,770**	**$22,261**	**$12,761**	**$36,830**	**$23,321**	**$24,960**
Average of Estimates	**$49,297**	**$44,219**	**$16,141**	**$14,812**	**$10,558**	**$22,880**	**$18,282**	**$14,648**

***Costs in these categories are apportioned by Gislason between the salmon fishery and other fisheries. The costs here represent only a portion of the total costs incurred by a fishing enterprise for these expenses in each fleet.**

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APPENDIX D

COMPARISON OF ‘MIDDLE GROUND’ PROPOSALS

Comparison of 'Middle-ground' proposals put forward by the CSAB and the FN SCC

Element	CSAB 'Evergreen' Proposal	FN SCC Proposal
Common Elements:		
Allocation Level	Shares (% of commercial TAC) by each species and by category i.e., fleet (A to H) / First Nations and fishery production area	Shares (% of commercial TAC) by each species and by category i.e., fleet (A to H) / First Nations and fishery production area
Duration	Evergreen; more discussion required on if/when to adjust allocations between fleets and potential mechanism.	5-year agreements with annual adjustments to account for share changes (i.e., licence transfers, relinquishments, etc. to FNs)
Sockeye Equivalents	Not required. May be used to establish initial intra-sectoral harvest shares. After that, focus on species/fishery specific shares which take into consideration harvest locations, value and access issues.	Not required after initial allocations set.
Clearly Defined First Nations Share	Yes, based on voluntary relinquishment of existing commercial licences.	Yes, fixed for each fishing season with provision for increase based on transfers.
Possible transfers outside original gear areas to upstream/inland areas?	Yes, based on agreed rules.	Yes, based on agreed rules.
Fishery Management Approach	All fishery types could be considered. Fishery management approach will be determined by fleet and fishery.	Same - all categories (fleet/gear and FN "basket") can determine the best approach for implementing harvest share (competitive, individual quotas, communal, etc.). Note: interest to consider finer scale / more local fishery management in future.
Key Differences:		
ESSR fisheries	Incorporated as part of commercial TAC.	Not included as part of commercial TAC.
Uncaught allocation or transfers of foregone catch to another group	Business arrangements required for transfers of uncaught commercial TAC between categories	FN included with commercial fleets as transfer recipient. Consideration of business arrangements if fish are available in harvest areas; transfer with no compensation for fish that can no longer be accessed in "downstream" areas.
Inseason Transfer	General support to continue current Departmental practice to	First Nations proposed basing share on only 'active' licences.

	provide each licence with equal share of the TAC based on the total eligible fleet (i.e. including active and inactive licences)	Mechanism for determining which licences are considered 'active' requires further discussion.
Dual Fishing	Not discussed	Seek flexibility to harvest FSC/ commercial share at same time

APPENDIX E

SMALL GROUP SUMMARY OF COMMON AREAS OF AGREEMENT

Summary of discussions regarding the CSAB "Evergreen" proposal and SCC First Nations proposal for changes to the Commercial Salmon Allocation Framework (CSAF).

(16 June 2014)

Representatives from the Commercial Salmon Advisory Board (CSAB), the First Nations Salmon Coordinating Committee and DFO have met on several occasions to explore issues and exchange information regarding the various proposals for changes to the Commercial Salmon Allocation Framework. It was recognized early in this process that both the CSAB and SCC were more likely to achieve the overall goal of improving the viability of the BC commercial salmon fishery if they worked together to understand each other's issues and goals. Most of the discussions have focused on the similarities and differences between the two "middle ground" proposals (the SCC proposal and the CSAB "Evergreen" proposal). Each of the individuals from the CSAB and the SCC participating in these meetings has made it very clear they were attending to explore ideas and increase their level of understanding, and they would not be able to confirm support for any proposal without seeking further input from other members of their respective groups.

The discussions related to the "middle ground" proposals examined each of the following five levels:

1. Both proposals are consistent with the approach of defining harvest shares for First Nations and Area A-H licences at the species-production area level (e.g. 22 species-production areas have been defined, see Table 1) for an indeterminate or multi- year time period (e.g. 5 years).

2. Determining harvest shares for relinquished licences should be based on the principle that each commercial licence has an equal share of the commercial TAC (or harvest) based on the total number of eligible licences in that licence category (e.g. 1/633 for Area C), where a share is defined as a percentage of the commercial TAC or harvest for a species-production area. Two figures and several fishery examples were prepared to focus these discussions.
    a. Figure 1 shows the First Nation and Area A-H harvest shares for each species-production area if all licences in the DFO Inventory and NNFC were transferred into the First Nations basket.
    b. Figure 2 shows the First Nation and Area A-H harvest shares for each species-production area if just the licences in the DFO Inventory were transferred into the First Nations basket.
    c. It has been noted that, Coastal First Nations are likely to continue to allocate some or all of their commercial salmon licences to vessels fishing in Area A-H fisheries, therefore, the portion transferred into the First Nations basket will certainly be less than that shown in Figure 1 and possibly less than shown in Figure 2.

3. The CSAB and First Nations are seeking greater flexibility regarding how their respective fisheries are conducted. This flexibility regarding harvesting methods, locations and timing and the conversion of licences shares to shares in a First Nation fishery have been discussed. Once harvest shares have been defined, the Evergreen proposals suggests each Area A-H fishery

should have management flexibility to determine the rules for distributing harvest opportunities among the licence holders, and the SCC proposal allows First Nations to be able to develop and implement fishing plans for separate First Nation fisheries or participate in Area A-H fisheries. DFO has emphasized that any changes associated with increased flexibility must be feasible to implement and this includes not imposing new costs on the Department and meeting key conditions for conservation and compliance. For greater certainty regarding the number of licences that could participate in Area A-H fisheries in a given year, it has been suggested that:

   a. First Nations that choose to allocate some or all of their commercial salmon licences to vessels fishing in Area A-H fisheries should commit this number of licences for at least 4 years;
   b. The conversion of harvest shares from an Area A-H licence to a harvest share for a First Nation fishery is a one way process for the time frame selected until review (e.g 5 years) and each licence share converted would no longer be associated with a specific licence area or gear type. The process for converting harvest shares from a First Nations fishery back to the original A-H licences is uncertain at this point but would be determined in consultation with DFO, CSAB and the First Nation requesting the change.

4. Several key issues with increased flexibility were explored and suggestions for addressing identified
   a. Fisheries where commercial TAC is not defined – one approach considered was to continue effort based fisheries and monitor catches and fishing opportunities (i.e. days) in season. Adjustments would be made in-season or post –season as appropriate to try and achieve the defined species specific harvest shares.
   b. Transfer of shares between fishing areas where species/stock composition differs – the harvest shares associated with a licence type should be adjusted for the species/stocks available in the desired harvest location. It may not be possible to access the harvest of all stock components without fishing the licence in the Area A-H fisheries (e.g. troll licences that typically harvest substantial numbers of US chinook in mixed-stock fisheries).
   c. Transfer of harvest shares associated with each licence – any individual or group interested in transferring a share associated with a species-production area must calculate the harvest share using the above principle that “commercial licence has an equal share of the commercial TAC (or harvest)” as defined in point 2 above.
   d. Management and enforcement related to new First Nation fisheries - First Nations would work with DFO to ensure that the fishing methods, monitoring and enforcement plans for these fisheries meet or beat the regulatory requirements of DFO.

5. First Nations have clearly indicated the desire to increase their share of the commercial harvest in the future through various process including the purchasing additional Area A-H licences and, in some instances, converting the harvest shares associated with these licences into an increased harvest share for First Nations fisheries. The CSAB has expressed concerns regarding the viability of Area A-H fisheries if most of the licences in a licence category are converted into

harvest shares for separate First Nation fisheries (e.g. in-land fisheries). The point at which the number of licences remaining in a licence category threatens the viability of fisheries for those licences will need to be discussed further, along with options for keeping each licence category viable.

No substantive differences were identified between the two "middle ground" proposals regarding Level 1 and 2 in the above list. In order to be consistent with principle defined under point 2 above, harvest shares for licences allocated to the First Nations basket would be based on the total number of licences in each licence category, not the number of active licences in any fishery. The number of inactive Area A-H licences would continue to benefit all fishers (First Nations and others) that choose to fish their licences in competitive, derby style, commercial fisheries. Those First Nations that choose to access their harvest share in a First Nations fishery would not benefit from the number of inactive licences in the general commercial fishery but they could realize additional social and economic benefits from conducting the First Nation fishery using harvesting methods and/or locations not currently permitted for Area A-H licences. As indicated above, several concerns were expressed by the CSAB and SCC regarding the degree of flexibility that First Nations would have regarding harvesting their share (Level 3 and 4). The issues regarding flexibility were identified as a key component to the implementation of these proposals. Several examples were discussed to explore how harvest shares would be calculated for licences converted from Area A-H licences into the harvest shares to be added to the First Nation's basket.

Discussions regarding Level 5 were limited because most of the time was focused on how the proposed changes would affect salmon fisheries based on the current licences in the DFO Inventory and NNFC.

All participants indicated that these meetings have provided an important opportunity to explore these proposals and discuss solutions to potential problems. A key to implementing any changes to the CSAF will be building flexibility into the framework so salmon fisheries can evolve and accommodate solutions to issues and challenges that have yet to be identified. A set of operational guidelines or rules for implementing the new CSAF would be helpful and, if developed, these guidelines/rules should be reviewed on a regulatory basis.

Table 1. Fishery codes and definitions for each species-production area.

Fishery Code	Fishery Name	Areas
1-sock	SX-North	1+3-5+101-105
2-sock	SX-Central	6-8
3-sock	SX-R/S	9-10
4-sock	SX-Barkley	23
5-sock	SX-Fraser	107-111+142+130+2W+11-22+24-29+123-127+121
1-pink	PK-North	1+2E+2W (even)+3-5+101-105
2-pink	PK-Central	6-10
3-pink	PK-Fraser	107-111+142+130+11, 12-13 (Pass-through)+14-29+2W (odd)+121+123-127
4-pink	PK-Mainland	12-13 (Mainland Inlets Only)
1-chum	CM-Area1-2	1+2E+2W+101-111+130+142
2-chum	CM-Area3-5	3-5
3-chum	CM-Central	6-10
4-chum	CM-South In	11-19+28-29
5-chum	CM-Nitinat	21-22
6-chum	CM-South Out	23-27
1-coho	CO-North	1-10
2-coho	CO-South In	11-20+29
3-coho	CO-South Out	21-27+121-127
1-chin	CN-North	1-5
2-chin	CN-Central	6-10
3-chin	CN-South In	11-20+29
4-chin	CN-South Out	21-27+121-127

Figure 1. Preliminary estimates of harvest shares for each of the 22 salmon species-production areas, assuming all licences in the DFO inventory and all NNFC licences are fished by First Nations. Typically only 60% of these licences are fished in any given year.

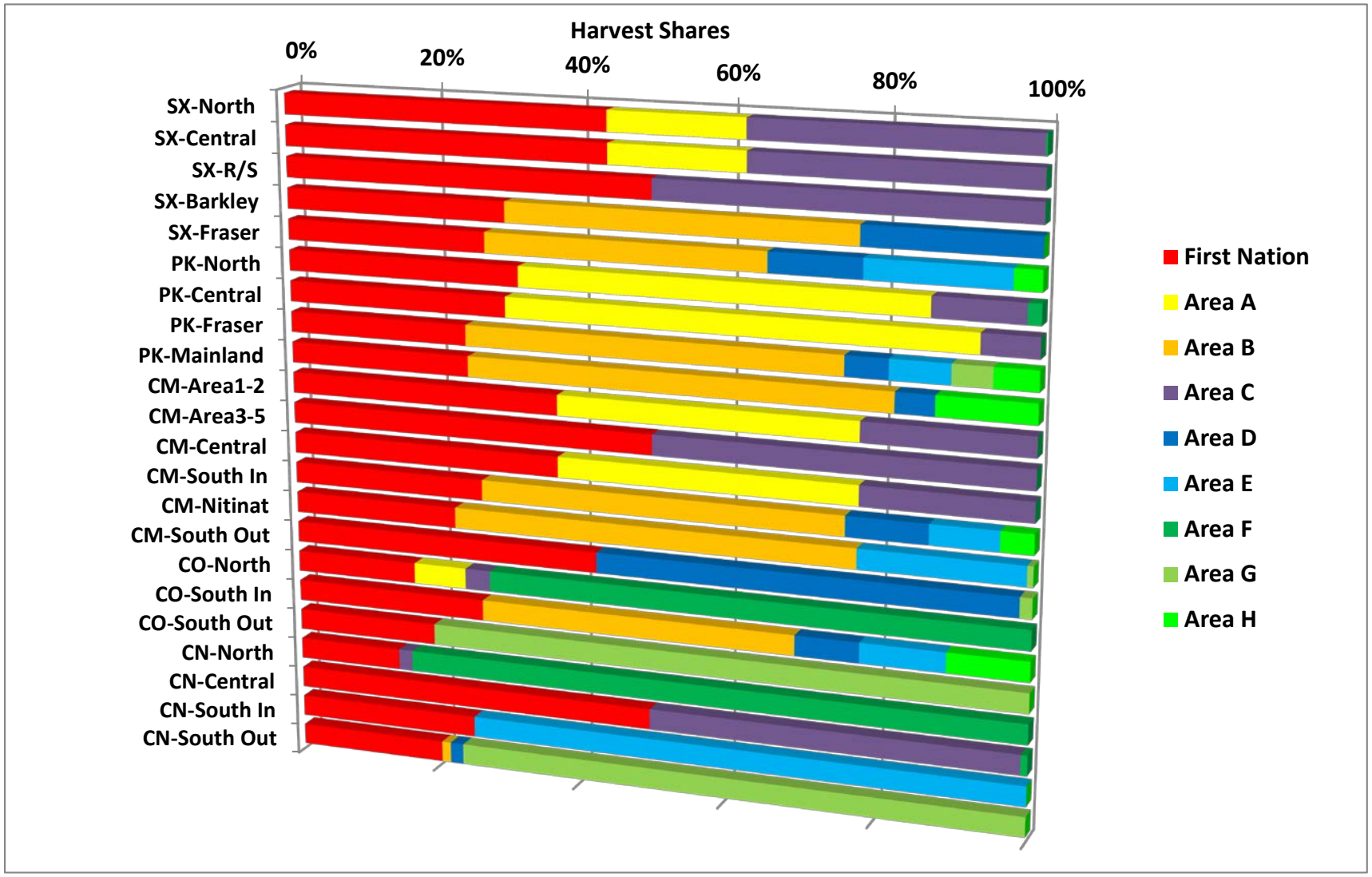
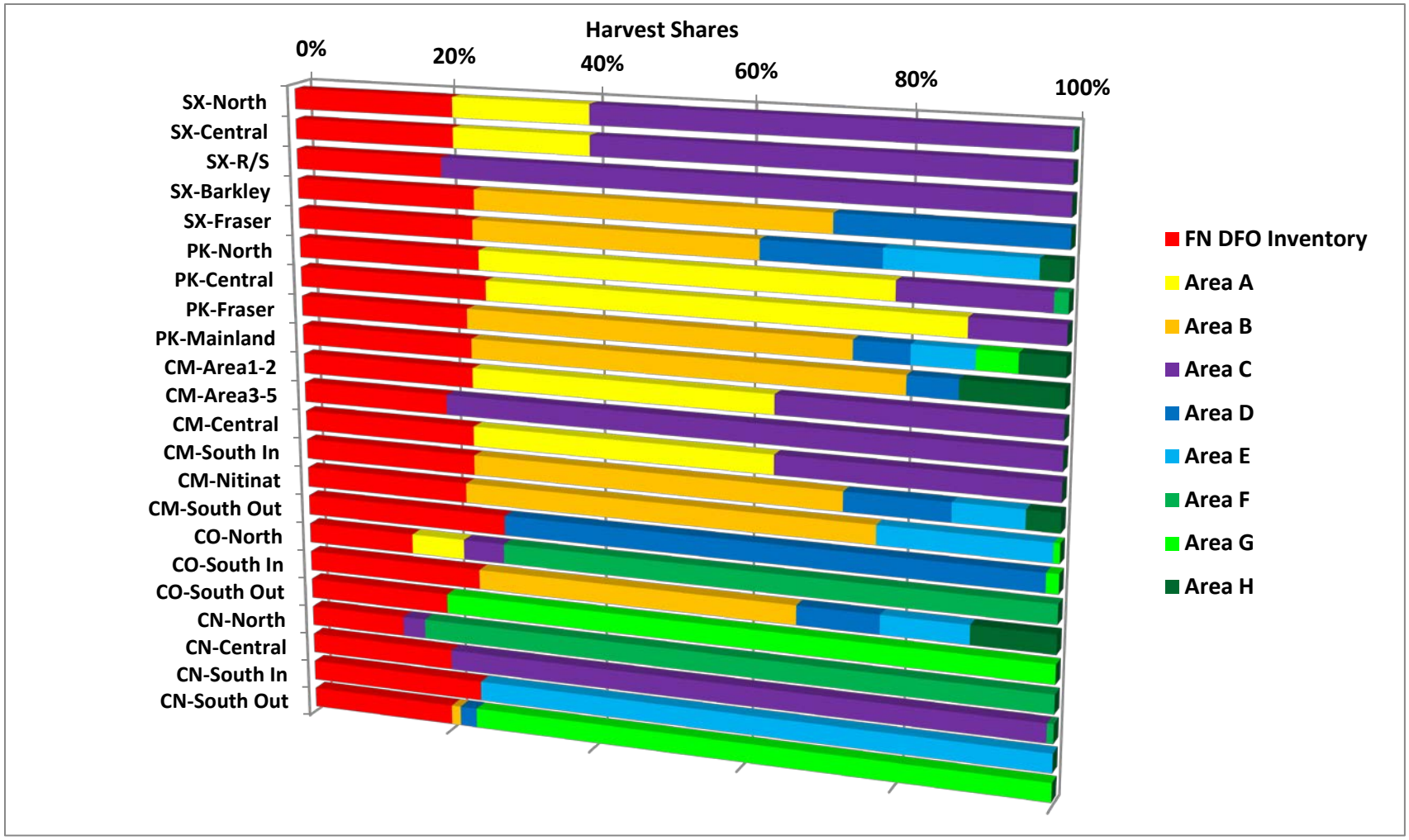


Figure 2. Preliminary estimates of harvest shares for each of the 22 salmon species-production areas, where all NNFC licences are fished in the general commercial fishery (Area C, D & E) and the First Nation fishery share is based only on the licences in the DFO Inventory.



APPENDIX F

MITIGATING CONCERNS MATRIX

Table 1: clarifying common understandings of the "middle ground proposals" for changing the commercial salmon allocation framework

May 8,2014

Key elements of the proposals	Principle(s) that seem in common	Could this change be Implemented now? (Yes/No) Conditions?	Are there Issues that need to be addressed?	Do we have examples of where this is working now?	Missing resource(s)	Considerations for mitigating the concerns
1. Defining the Allocation level						
	Shares (% of commercial TAC) by each species and category i.e., fleet (Area A-H) or First Nations and fishery production area	Yes, with limitations. While initial % of commercial TAC can be defined, not all fisheries can be managed to this i.e. TACs not available for some fisheries production areas (see point 3 below-re flexibility to manage share)	Would require discussion to set initial allocations. FN shares would need to be defined for each fishery production area.	Currently, annual process to set commercial allocations by fleet and fishery production area to meet coast-wide allocation targets (40:38:22). Other examples: Nisga'a, Maanulth, Tsawwassen Treaties, Somass/Fraser Economic Opportunity agreements.	Process to set initial allocations by CSAB to fill in fishery production area matrix. Also involves First Nations shares in other fisheries (e.g. Economic opportunity in lower Fraser previously mitigated). Historical information on commercial shares to inform process.	Suggestion to include First Nations at the CSAB table. Matrix clearly defining commercial sharing arrangements as % of commercial TAC for 8 commercial fleets and First Nations by fishery production area. All commercial harvest shares have same priority.
2. Assigning the FN share						
	FNs share based on voluntarily commercial relinquished licences; calculated as % of commercial share based on 1/ current total fleet size (e.g. 1/108 Area A licences)	Yes, the percentages can be calculated by fleet and fishery production area based on known numbers of licences set aside for First Nations.	2.1) Initial number of licences for First Nations (what's included?). DFO Inventory licences (e.g. PICFI, ATP	Current approach followed by DFO when assigning shares to relinquished licences for FN demonstration fisheries	Clear accounting framework that includes all commercial licences from the DFO inventory (e.g. 477 licences).	See points in section 3 re: flexibility for licences in marine area.
			2.2) Concern about viability of remaining marine commercial fleet to support coastal industry/services (i.e. by transfer/movement of licences from coastal to inland areas).	Approx. 200 of 477 DFO inventory licences issued for communal commercial access to coastal FN's in existing A to H fleets. Skeena Inland Demonstration fishery. IFMP outlines transfer arrangements for Area A and C licences to inland FN groups	Analysis required of potential use or movement of licences from coastal areas (minimum fleet to maintain supporting industry/infrastructure? Will there be an issue? Coastal FN general interest in more participation). Licence transfer rules would need to be clear, including temporary (in season) or permanent (voluntary relinquishments)	Assessment of "risk" of this issue (is this concern likely to be realized? Balance of coastal and inland FN interests mitigates concern in part).
3. Managing the commercial shares (how much flexibility can be provided?)						
both middle ground proposals seek flexibility on how shares may be harvested (e.g. derby, pool, IQ, ITQ, communal fishery) as best determined by the fleet and First Nation	Flexibility to manage shares subject to meeting conditions	Maybe, subject to a number of conditions including: pre-agreed fishing plan, compliance with conservation, meet stock assessment/monitoring/enforcement standards	3.1) What happens with fisheries where commercial TAC is not identified?	Most fishery production areas are managed using effort based approaches (e.g. Bella Coola chum, WCVI chum, NC pink, many others). Current examples: Area H southern chum effort quota (boat day allocation) demonstration, Skeena Inland demonstration - Area C transfer, Nisga'a and Tsawwassen Treaties.	Sufficient stock assessment to manage to TAC would need to be developed in many areas. Exploration of other ways to allocate / manage effort to meet share could be considered. Analysis of historical data/information to develop proxy for harvest share if no TAC.	Need to adjust effort-harvest rate relationships for arrangements over time, particularly, non-commercial vessels. Potential collaboration to improve stock assessment to identify or 'grow' the commercial TAC.

Key elements of the proposals	Principle(s) that seem in common	Could this change be Implemented now? (Yes/No) Conditions?	Are there Issues that need to be addressed?	Do we have examples of where this is working now?	Missing resource(s)	Considerations for mitigating the concerns
	Flexibility to manage shares subject to meeting conditions; stock composition must be accounted for and linked to share on a stock specific basis (not sockeye equivalents)	same as above	3.2) Address allocation / transfer of share between fishing areas where species/stock composition differs	Several FN demonstration fisheries provide for transfer to specific stocks including: Secwepemc FN fishery for S. Thompson Chinook in Kamloops Lake (based on area F licences and stock composition in NC AABM area), also Fraser River sockeye inland demos based only on stocks located in the demo area. Also examples for Skeena and Nass in inland demonstration fisheries.	Commercial TAC identification; stock composition information (DNA sampling); management adjustment considerations for Fraser sockeye to be resolved.	Additional stock composition sampling; use of information from commercial salmon fisheries. Some component of coastal harvest will be 'lost' for inland transfer reflecting US origin populations (e.g. AABM troll, US enhanced chum in Area 3, southern US pink salmon, etc...). Opportunities for increased role for First Nations to assist in collecting information.
First Nations seek flexibility to fish their share during commercial openings of A-H or outside of those opening and areas under certain conditions	Flexibility to manage shares subject to meeting conditions	same as above	3.3) Licence rules: Issue of concurrent openings in GN fleets (can't be everywhere at once); Transfer rules need clarity	Inland demonstration fisheries based on shares from commercial salmon licences (DFO inventory and/or lease arrangements)	Clear communication piece required (issues: commercial fishery 'windfall' from access relinquished for FNs will be fully utilized-voluntary relinquishment of licences by Gov't intended to benefit FN's). Issue re: ability of individual licence holder to 'decide' on how to fish/transfer share; currently fleet decision in commercial fisheries.	Common, transparent rules and/or licence conditions. Some portion of access for FN's likely to continue to be harvested in existing marine commercial fishery (more likely in low participation fisheries given potential value/licence, e.g. Central Coast?). First Nations choice to opt into the existing commercial fishery would include all Areas for that licence Area (timeframe?). Flexibility to have further discussion about licensing rules and regulations....
FNs seek flexibility to transfer shares to other FNs or Area A-H that could not be harvested in communal fishing area subject to conditions	Flexibility to manage shares subject to meeting conditions	same as above	3.4) Ability to access all shares associated with a licence; transfer rules need clarity	*Interim Guidelines for Temporary Salmon Share Transfers* in salmon IFMP's outline conditions under which this could be considered. Examples: Area H transfers to First Nations (proposed), Skeena inland demonstration (A/C shares moved to inland FN's), FN to FN transfer in lower Fraser and/or BCI for pink/chum.	Licence transfer rules would need to be clear, including temporary (in season) or permanent (voluntary relinquishments)	Common, transparent rules and/or licence conditions. Some portion of access for FN's likely to continue to be harvested in existing marine commercial fishery (more likely in low participation fisheries given potential value/licence, e.g. Central Coast?). Flexibility for harvest committees to decide how to manage.

Key elements of the proposals	Principle(s) that seem in common	Could this change be Implemented now? (Yes/No) Conditions?	Are there Issues that need to be addressed?	Do we have examples of where this is working now?	Missing resource(s)	Considerations for mitigating the concerns
	Flexibility to manage shares subject to meeting conditions		3.5) Temporary (inseason) transfers- concern in competitive fisheries about undermining certainty/stability (i.e. how many licences will show up for an opening/ how many licence shares will be transferred inland).	Concern with competitive fisheries - fleet share provided to active participants. ITQ fisheries amenable to inseason transfer as individual licence shares are specified.		Further discussion required
	Flexibility to manage shares subject to meeting conditions; opportunity to access defined harvest share inseason or with pre-agreed arrangements. (NOTE: this does not refer to ESSR fisheries)	Allocation Policy outlines transfer between existing commercial fleets, but silent on commercial fleet-FN transfers. Interim operational guidelines in the salmon IFMPs	3.6) Uncaught allocation	Yes, business arrangement examples for transferring share (e.g. pinks transferred from BC Interior FN to Lower Fraser FN). Skeena inland demonstration fishery sees unharvested FN shares transferred to upstream groups.	Choices: 1. uncaught allocation can be caught by parties 'upstream' if possible (no arrangements required); or, 2. require specific transfer arrangement to access uncaught TAC (e.g. business arrangement or fish remain unharvested to spawning grounds)	1. Business arrangements for share transfers; encourage collaboration between groups. 2. Manage to clearly defined shares of TAC in all areas. Further discussion required? 3. Identify fishing plans to optimize harvests of allocations.
	Flexibility to manage shares subject to meeting conditions		3.7) NNFC licences- party based. Flexibility to lease annually.			to be discussed along with other licensing rules
4. Coordinating the available commercial fishery harvests among participants						
	Collaborative commercial fishery planning (pre-, inseason, post-season) at appropriate geographic/fishery scale process including all participants (e.g. Tier 3-DFO, FN, Commercial). (Note: not exclusive of Tier 1, 2 discussions or other processes)	Yes, with conditions. Requires clearly defined shares for FN and commercial fleets. Informal meeting opportunities between FN and commercial harvesters continue.	Requires identification of management body for specific areas. FN "representation" needs to be identified.	Somass Round Table; Nisga'a/Nass commercial fishery management. Annual meetings to discuss fishing plan on the Skeena between commercial harvesters and FN's.	Resources to support planning forum(s); interest to minimize time consuming processes; updated CSAB ToR?	Formal advisory structures with clear membership and Terms of Reference.
5. Optimizing the commercial harvest potential						
	Fully utilize and increase the commercial TAC for all participants	Yes, with conditions. Requires population information in some cases and raises question of how to best address by catch as part of shares	Range of issues: Ability to plan fisheries to meet local needs; ability to harvest small TACs when available; ability to transfer shares between commercial fishery participants; improved stock assessment/manageability; improved selective fishing/by-catch management	Area B and H sockeye and pink ITQ demonstration (sockeye quota measured in mortalities, including retained and releases); Area E chinook pool fishery to harvest limited amount (e.g. 2K) of Fraser chinook using limited fleet. Inland demonstration fisheries including selective gear. Limited entry approaches (e.g. Area D WCVI chum fisheries).	Management controls to fish to defined share. Stock assessment information. By-catch monitoring.	Improved stock assessment; ability to leverage funding arrangements with FN agreements.
	Interest in reducing fishery costs associated with catch monitoring	Monitoring sufficient to provide confidence in catch.	Make better use of local monitoring capacity (incl. First Nations/local community)			

Key elements of the proposals	Principle(s) that seem in common	Could this change be Implemented now? (Yes/No) Conditions?	Are there Issues that need to be addressed?	Do we have examples of where this is working now?	Missing resource(s)	Considerations for mitigating the concerns
6. Achieving more certainty and stability						
	Adopt longer term allocation arrangements	Yes, allocations could be fixed for indeterminate of specified period.	6.1) Concern about instability from annual changes. Issue of distribution of licences in marine vs. inland fisheries (see 3.3, 3.4, and 3.5)	Treaty / Harvest agreement arrangements; Somass FNs economic opportunity arrangements cited as positive (but annual agreement)	explicit commitment to adopt multi-year arrangements and avoid annual uncertainty	Consideration of implementation for a specified time period with provision for assessment of results and comparisons with objectives after a specified interval (e.g. 5 years). Examples of revisions to Treaty Fisheries Operational Guidelines after Treaty implementation based on implementation and evaluation.

APPENDIX G

WRITTEN COMMENTS ON

SOCIO-ECONOMIC ANALYSIS AND DRAFT PHASE 2 REPORT

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UFAWU-Unifor response to

The Socio-Economic Implications of Suggested Approaches for Updating the Commercial Salmon Allocation Framework (Fraser Report Phase 3)

by Fraser and Associates

June 14, 2014

The United Fishermen and Allied Workers' – Unifor has concerns with the analysis as presented in the Fraser Report Phase 3. Much of the information presented is not footnoted, is outdated, inaccurate or unsubstantiated. Things of importance to the CSAB have been omitted.

Objective 1 – Greater Certainty of Access to Salmon Resources.

In the Union's opinion, the over-riding theme of the commercial allocation modernization discussions in the CSAB is how to make allocations more stable; providing, through stability, more certainty in the percentage of salmon each gear can access. Discussion has been about shares, length of an agreement, transfer mechanisms, and how the varying arrangements might give fishermen greater stability and certainty.

Of the nine indicators suggested by the CSAB, which were listed in the Stage One Report under this Objective, four refer to explicit agreements on sharing arrangements among the gear types and between the marine commercial fleet and First Nations. They reveal the importance that the CSAB gave to stability and certainty of allocations.

Indicators Suggested by the Participants

- Explicit First Nations economic share, allocations for small boat fleet (gillnet/troll vs. Seine)
- Clear agreement on commercial allocations –explicit duration (time)
- % of allocations harvested, explicit mechanism for transfers
- Explicit requirements, compliance with standards

(The Socio-Economic Implications of Suggested Approaches for Updating the Commercial Salmon Allocation Framework Stage 1 Report March 12th 2014 p.15)

These important 'indicators' reflect the CSAB's allocation modernization discussions yet they are not referred to nor discussed under this Objective. The Key Indicators and the Metrics on page 14 do not evaluate any of the proposals against the desire to make allocations for all sectors more stable. The Stage One report states that these indicators may be better addressed under the 'Improved Governance' objective (Stage 1 p15), but they are not included in that section either.

Key Indicator 3, 'Projected changes in the TACC harvested', is not mentioned by the CSAB as an indicator under this Objective, yet it is used as a 'Key Indicator' for certainty. The proportion of the TTAC harvested is less an indication of how stable an allocation or sharing plan is and more the result of fisheries management methodology. If this Objective is to measure the potential of each allocation plan to make the fleet's access to salmon more certain, measuring changes to the proportion of TTAC caught is not a credible metric.

The TTAC is set by harvest rules in accordance with the Wild Salmon Policy and access to the full TTAC of a target species will increase or decrease depending on many factors other than allocation plans. Things like geographic locations and species of weak co-migrating stocks are much more important to the harvest of the full TTAC than allocation. In fact, the total harvest of the TTAC could be accomplished with a variable allocation plan with little stability for the marine commercial fleet – by allocating all surpluses created by weak stock management to terminal harvests by First Nations. The amount of fish harvested by each group would be, in this case, entirely dependent on the fishing plan.

How well an allocation plan can create stability in the face of changing fish management or changing environmental conditions would be a better indicator of greater certainty of access to salmon.

The 'Duration of the Allocation Agreement' is another Key Indicator in Objective 1. Eric Angel (M.R.M.,Resource and Environmental Management, SFU, Angel Research, Vancouver B.C.) writes the Union:

> Out of all the rules that DFO has to decide for a fishery, allocation is unquestionably the most controversial, but also the one that is most likely to come under pressure to be changed over time as social values and power dynamics in society change. In other words, views on what is fair and who should get what change as society changes. Just look at how First Nations allocations are talked about now compared with 20 years ago. Because of this, permanent allocations run the risk of entrenching a particular set of values and power relations, which will almost inevitably lead to increasing discord over time as society, the economy, communities and the political landscape changes. So, paradoxically, a permanent agreement can produce greater certainty in the short-term but in the longer-term it will produce just the kind of conflict and uncertainty it was designed to avoid or diminish.

Therefore, an allocation plan that can change with changing run sizes and changing DFO management regimes might spell more certainty for fleets and individuals from year to year than an allocation regime that locks each gear into a dependence on a handful of stocks. The Union's allocation plan (not analysed by Fraser) proposed changeability under the principal that no fleet should be out of the water; all fleets should have a chance to fish.

Objective 2 – Increased Economic / Financial Benefits from Fishing.

> Indicators 1 and 2: There is a deep conceptual divide (and confusion) here between the economist/business interest in growth and profits, as captured by the total net income indicator, and the distribution of benefits perspective, which is captured in the breakdown of net income (or profits) across licence area, fleet and First Nations in the first indicator, and the employee/owner and operator/armchair fishermen distinctions in the second indicator. Conceptually, the break out categories under indicator 1 are no different than those under indicator 2. They are all about who benefits. So really there is just one indicator here, total net income, which captures one aspect of the economic impact of the first stage of the fishing value chain, and then a bunch of ways of looking at how this part of the larger benefits pie gets carved up, which is a totally separate issue. (Letter to UFAWU. Eric Angel, M.R.M.,Resource and Environmental Management, SFU. Angel Research, Vancouver B.C.)

Fishermen, indeed, want increased economic / financial benefits from fishing. However, it is doubtful that allocation plans will change prices or run sizes. Allocation plans are about how to divide the catch up, fisheries management regimes decide how much of each species/stock can be caught, and the fisheries management plan determines where it shall be caught.

Within allocation plans, different tools can be used to enable fishermen to access their allocation. Regular competitive fisheries, pool fisheries, draw fisheries, effort fisheries, individual (non-transferable) quota fisheries are some of the strategies that the fleets can use to access their shares. Depending on many things, the different harvest tools may permit greater or less access to harvests (such as small bite fisheries) depending on the risk of overfishing (catching more than your allocation)attached to the particular 'tool'. While it is doubtful if any tool can have long term influences on prices, it is very conceivable that different fishing methodologies can have different costs, thereby impacting net income. However, to visit allocation plans with impacting financial benefits (other than the obvious – of having a larger allocation than before, as a result of a new allocation policy) is nonsense.

The exception is, of course, transferable quotas. Transferable quotas do create changes in the division of net income between 'social groups'. Simply put, the net income of those who fish goes down and the net income of those who don't fish goes up. Part of the Union's reply to the **Fraser Report Phase 3 is** a brief report written for the Union by Dr. Evelyn Pinkerton on the social and economic impacts of going to an ITQ system on salmon. Dr. Pinkerton shows that a vast body of literature takes the opposite view to that found in the Fraser Report; net income is reduced for most fishing vessels and working fishermen.

Objective 3 – Increased Social Benefits from Fishing

Again, the indicators suggested by the CSAB to determine the social benefits derived from the various allocation plans differs from the ones that the Report uses. The CSAB chose the number of vessels, the number and percentage of active licenses and the size of the small boat fleet compared to the seine fleet. These were proposed as indicators of impacts on community infrastructure and ancillary industries whose health is based on vessel numbers.

While the Fraser Report Phase 3 uses employment by social group and fleet as a Key Indicator, the CSAB was far more nuanced. The CSAB indicator looked at the distribution of jobs, the number of people employed (not just fishermen), and the geographic distribution of employment. The impacts on communities include the impact of allocation on fish processing jobs

The UFAWU-Unifor surmises that the different allocation plans will have little impact on geographic employment because the TTAC will remain the same and the allocation plans – other than the ITQ plan – keep the three gear types sharing the resource. We agree with the Report's analysis that the ITQ allocation plan will see a consolidation in the fleet and employment reductions. However, the Report does not address the ripple effects in the communities of a reduced fleet.

> Apart from the conceptual confusion, there is a lot that is missing here from both the economics and equity perspectives. In the first place, the direct economic impact of a productive activity – its contribution to GDP – is measured using revenues, not profits. Secondly, it is essential to look at the multiplier effects, indirect and, if possible, induced. Indirect effects take into account the purchasing of goods and services by firms in whatever sector is being studied, as well as sales and subsequent processing, distribution, etc. before the product reaches the end consumer. This is the value chain. In the case of fisheries, fishermen purchase supplies and fuel, they get repairs done,

they pay for insurance and accounting services, and so on. They sell their fish to processors who add value, and pay wages, before selling their product, etc. In addition, there are induced effects, which capture the fact that the wages and income generated by fishing, in this instance, stimulate further spending on consumer goods, housing, food, etc. In addition to the impact on GDP, there are direct, indirect and induced effects on employment which can also be calculated using multipliers. This method of quantifying the economic impacts of an activity was developed in the 1940s by a Nobel prize-winning economist and has become part of the standard economic analysis toolkit of governments and policymakers around the world. Statistics Canada publishes tables every year of the multipliers for a huge range of industries, including fishing. These deal with the impacts at a national scale, but provincial level multipliers for indirect effects are also available.

It is incorrect to say, as Fraser does, that net income "balances out" the other variables that produce it. If we treat all fishing enterprises as businesses, and treat wages or shares paid to crew as part of fishing costs, then total net income is equivalent to total profits, which, at the scale of the entire fishery consists of the normal (market) return to capital plus resource rent. It is perfectly acceptable to use total profits or net income as *one* indicator of the economic and financial benefits produced by a fishery. But to claim that this indicator alone captures the important economic and financial benefits is completely false. At the very least, a reasonable set of economic and financial benefit indicators would include the following (Sumaila et al 2012): total revenues, total profits, wages, number of jobs, and economic impact through the wider economy. (Letter to UFAWU. Eric Angel, M.R.M.,Resource and Environmental Management, SFU. Angel Research, Vancouver B.C.)

The UFAWU disagrees with the Report's conclusions regarding Key Indicator 3 Assessments of improvements to safety of the fishery. The following shows that 2007-2011 the number of vessels has gone down by 5%, while the number of serious injury claims remains relatively constant (other than 2007) and there is no real trend shown for deaths.

Vessel Information

Note: The Following pages, when printed, may be larger than the standard paper size, resulting in multiple pages.

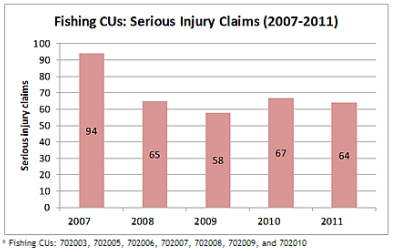
Due to the width of this table it may be necessary to scroll to the right of the page.

NUMBER OF VESSELS BY OVERALL LENGTH 1985-2012 FOR THE PACIFIC FLEET

Year	Overall Length							
	<35'	35' to 44'11"	45' to 64'11"	65' to 99'11"	100' to 124'11"	=>125'	Not Recorded	Total
2007	1213	1196	385	184	10	7	1	2996
2008	1156	1156	388	174	10	5	1	2890
2009	1138	1122	365	171	9	3	1	2809
2010	1072	1093	357	165	9	3	0	2699
2011	1063	1064	341	367	9	3	0	2847
2012	1032	1005	335	165	10	4	0	2551

Serious Injury Claims, 2007-2011

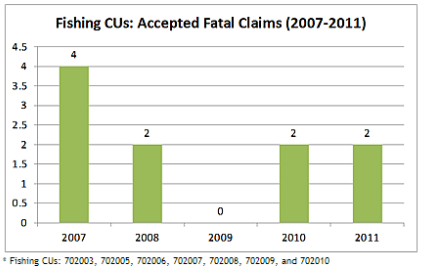
Between 2007 and 2011, 348 serious injuries were accepted in Fishing. The most common accident types that result in serious injuries include: water vehicle accident, struck by object, overexertion, and caught in or compressed by equipment or objects.



* Fishing CUs: 702003, 702005, 702006, 702007, 702008, 702009, and 702010
Prepared by: Business Information Analysis (BIA), March 2012
Source: BIA Datamart as of February 2012 and Fisheries and Oceans Canada

Accepted Fatal Claims, 2007-2011

Between 2007 and 2011, ten fatal claims have been accepted for Fishing. Many of the fatalities were drownings.



* Fishing CUs: 702003, 702005, 702006, 702007, 702008, 702009, and 702010
Prepared by: Business Information & Analysis (BIA), March 2012
Source: BIA Datamart as of February 2012 and Fisheries and Oceans Canada

http://www2.worksafebc.com/

Portals/Fishing/Statistics.asp

Objective 4 – Improved Financial and Social Viability for the Fishery

Objective 4 – Improved Financial and Social Viability for the Fishery and Objective 2 - Increased Economic / Financial Benefits from Fishing have very similar Key Indicators in the Phase 3 Report. Instead of a change in total net income, Objective 4 proposes changes in average income. The answers that the Report concludes are logically the same, because the questions are the same. However, the CSAB proposed other indicators of improved financial and social viability. One indicator was the distribution of licenses – would the allocation plan result in increased corporate concentration, would the fleet structure change, would there still be a strong owner-operator fleet? What would the impact be of alternate allocation plans on fishermen or First Nation's cooperatives? These issues impact the structure of the fleet and the well-being of fishing communities.

Nevertheless, the Union does not think that the 3 allocation plans will vary much from the present day in any income related issue. Except, again, for the ITQ plan, which Dr. Pinkerton demonstrates in her accompanying piece, increases corporate concentration, creates fleet structure change and reduces the numbers of owner-operators.

While we deplore the low prices that the lack of collective bargaining has brought about, we strongly disagree that large runs and good prices seldom result in good [income] returns. The Report says that "The fishery appears to be unsustainable in its present form" ((Fraser Stage 3 p8). This section concludes with the statement that the key common theme is a more self-sustaining fishery regardless of catch levels and market prices (Fraser Stage 3 p8). These assertions are the same mantra that is proclaimed by ITQ proponents across BC. It would appear to mean that with any allocation plan other than an ITQ plan, the fleet would remain unsustainable.

How can fishermen remain self-sustaining regardless of catch levels and market prices? In 2010, when catches were good, the fleet made very good returns. In 2013, when sockeye failed everywhere except for the Nass and Barkley, gillnet fishermen did very poorly. In years of poor abundance, fewer fishermen fish and the fleet size is reduced. The same will happen with ITQs, except that with ITQs, those that choose to fish will have to pay those that don't and in the regular fishery, those that choose to fish don't have to pay those who don't.

Fishermen know that they need a stable longer term allocation agreement with First Nations. They need an agreement that gains fish back from the sports sector. Fishermen know that they need to change DFO's ridiculous management regime that punishes the commercial fisheries but produces no increases in numbers of harvestable fish. There are solutions, but they are not in an allocation scheme that increases corporate concentration and creates higher fishing costs for those who are left.

The Union also disagrees with the Report's statement (Fraser Stage 3 p8) that there is an inability for the present fleet under the present allocation system to adapt to changing circumstances in the fishery. The fleet is adapting all the time. It shrinks or expands according to run sizes. It has developed and uses different tools to manage their fisheries so that they can harvest their target species even with weak stock bycatch problems. The fleet we have is extremely flexible and adaptable. The allocation plan is also adaptable - fishermen have accepted the management regime and management plan realities and have created allocation plans that reflect those realities. As many CSAB members have pointed out, there is little argument about allocation in the annual allocation meetings because DFO management plans have made choices so minimal.

Objective 5 – Improved Clarity and Fairness when allocations are transferred

Objective 6 – Improved Governance of the fishery

Objective 7 – Improved Resource Sustainability

The UFAWU-Unifor agrees that clarity, fariness and transparency are required in any allocation process and the more complex the plan, there is an increased need for discussion, clarity and transparency. The Union also agrees that a First Nations' allocation and an allocation process that is managed in a clear, transparent and fair manner would go a long way in co-operative fish planning and improved fisheries opportunities for all. However, the Union does not believe the report is very clear (Fraser Stage 3 p8) on how strongly the CSAB believes that the ESSR should become part of the TAC and that the benefits from an ESSR fishery should be shared by all fishermen.

Performance Indicators

The report discusses its methodology regarding performance indicators on pages 9-10. It is obvious to all, that income and employment impact fishermen and their communities. However, the flow charts showing the linkages without any discussion of other social impacts makes this study narrow in focus.

Other social indicators that are important are:

- Access to FSC and cultural activities is impacted by the number of fishing vessels in a community
- Community well -being and resilience
- Impacts among communities – fishing privileges or shares accumulating differentially among communities; social costs vs economic efficiency; communities that lose fishing access or allocation and communities that gain access/allocation
- Impacts within communities – distribution of costs and benefits; social distribution of fishing access and income; equity concerns; prospects of marginal participants; intergear relationships; owner-operator and sharecropper relationships
- fishermen interactions with each other (fishermen's community) – lifestyles, relationships, basis of distribution; capital ownership vs years fishing, winners and losers, differentiation between big boat and small boat survivals.
- Cost of the change in allocation – who bears it? Federal Government? First Nations? Fishermen? Communities? and implications.

Eric Angel explains it in this manner:

> Employment is certainly an important indicator of social benefits. The number of active fishermen and the number of fishing days per vessel are reasonable proxies for employment. The problem is that these two indicators fail to capture a wide range of other social benefits. For instance, employment in processing is very important to some communities and accounts for a large portion of the overall economic impact of the fishing industry. There are two ways to capture this, either directly, through employment in processing, which should be converted into person years of employment, or indirectly, through the use of multipliers, which includes both downstream and upstream employment impacts of the primary productive activity (fishing).

> Apart from employment, there are other important social benefits that ought to be considered. It is not acceptable to say that these benefits are difficult or impossible to measure. They can be… I'll provide one example here out of many possibilities. The wellbeing of individual fishermen is an important social benefit, for the simple reason that fishermen are not isolated individuals who exist on their own without contact with society. They have families, friends and neighbours. If the subjective perception of wellbeing on the part of fishermen is high, then this will have positive impacts on relationships, families and communities. Conversely, a lowered sense of personal wellbeing has been clearly linked to negative individual and social outcomes: things such as shorter life expectancy, higher rates of suicide, higher rates of family breakdown, and higher health care costs generally, across a community or region. (Letter to UFAWU. Eric Angel, M.R.M.,Resource and Environmental Management, SFU. Angel Research, Vancouver B.C.)

The UFAWU-Unifor is an industrial union. We represent all sectors of the salmon fishery – at sea and on shore. By narrowly defining Value Added as the surplus after operating expenses available to pay wages, interest payments, depreciation and profit and earnings to vessel owners (Fraser Stage 3 p24), the Report does not consider the Value Added by the processing sector. Therefore the Report considers an increase in Value Added and an increase in price paid to fishermen and ignores the Value Added by the processing sector which is a large community benefit.

Should the allocations be transferable
Proposed changes

The Union agrees with the last bullet in this section that ITQs are controversial. However, we strongly disagree with the characterization that 'some' strongly favour ITQs, 'others' are adamantly opposed. This infers that there is equal support for transferable quotas, which is not accurate. The majority of CSAB members, when acting on behalf of their Area Harvest Committees, have brought proposals to the table that are opposed to ITQs or propose to use ITQs within their own fleet Area as a management tool.

- Area A and Area B – have no official proposal but at least two representative says that ITQs will only work in a small number of fisheries and should not be imposed on all fisheries nor should one fleet impose ITQs on the other.
- Area C – opposed to ITQs – generally endorsed the Union's proposal
- Areas D and E – have no official proposal – their representatives fully support ITQs
- Area F – have an official proposal – they want to decide for themselves if they want more ITQ fisheries (so far they do not) and they do not want to impose ITQs on any other area
- Area G –opposed to ITQs - has an official proposal
- Area H – representatives support ITQs but no official proposal. A group of Area H fishermen sent in a position not supporting ITQs
- Native Brotherhood of B.C. – opposed to ITQs – generally support the Unon's proposal
- Processors – have not taken a position. Are part of Areas A and B
- UFAWU-Unifor – opposed to ITQs. Proposed an alternative. Sent out a questionnaire to Union and non-Union fishermen regarding ITQs and received well over 200 back. The result was 85% of the fishermen who returned the survey were opposed to ITQs.

Transferable quotas are a radical method of changing the allocation plan. Transferable quotas concentrate control over access to fish which fleet allocation plans do not. Where fleet allocation plans preserve and protect the small boat fleets, transferable quota fisheries see larger vessels with quota collections replacing the small operators.

Impacts of Change –

It is not clear to the Union why the Report increases prices by 5% in each allocation Change Approach except for the ITQ Change Approach where prices increase by 10%. Changing commercial allocation shares should not impact TTAC nor prices. (Fraser Stage 3 p26).

Change Approach 1

It is not clear why the distribution of impacts as a result of the new SE formula differs from the outcomes of the present formula - other than because of the new SE formula, the trollers would have a higher allocation of salmon in the future. It should be explained why the Area A seines are shown in Table 4 to have an increase of 1 million dollars in their fisheries' value when they will likely have fewer pink salmon to catch as the trollers increase their share. Area C should have no impacts because the trollers aren't able to catch the gillnet allocations. It is not clear why Area H gets less fish if Areas B, D and E also get less fish. Perhaps a table will help. (Fraser Stage 3 p27).

It should be clear where you get crew numbers from and what is the difference between a skipper and an owner-operator. (Fraser Stage 3 pp28-29).

The estimated employment/landed value relationship (Fraser Stage 3 p29) is not realistic. It is farfetched to assume that increasing numbers of vessels will enter a fishery until they are all equally broke. There are pragmatic variables preventing that, such as run timing , fishing alternatives and travel costs.

Change Approach 2

Your ESSR added value calculations should be described as they are impossible to follow. (Fraser Stage 3 pp33-34). By assuming a price increase of 5%, it is very difficult to follow what group is actually benefiting from allocation approaches and why.

Eg: "The inclusion of ESSR in the sharing arrangement only adds $72 thousand in value added to the marine fisheries." The agreement …. Is estimated to reduce value added in the in-river fishery by $72 thousand". How is this possible? Price differences between marine and inland are substantial. Why is there a net gain for coastal First Nations of $4 thousand and an overall coast wide gain of only $63 thousand? (Fraser Stage 3 p33).

Why are there" …substantial income gains to coastal First Nations… and total income gains of more than $100 thousand…" and why would you confuse everything if "These results are entirely dependent on the 5% price increases assumed in the analysis." (Fraser Stage 3 p34)

Change Approach 3

Again it the ESSR discussion is very confusing. By having all ESSR fish caught inland by Terminal First Nations, there will be a reduction of 26 fishermen in the marine area and an increase of 600 people employed in the inland fishery? (Fraser Stage 3 p34) Please explain. This is a very divisive issue and by not explaining your calculations, the Report might lead to further widening of the ESSR positions.

Again, the amorphous 5% increase in landed prices of salmon confounds understanding. The Report says that the number of operating vessels will decline because the value of the harvest decreases under this ESSR scenario. However, because the Report inserts a 5% increase in price, the fleet numbers do not decline. (Fraser Stage 3 p41)

In the verbal explanation of the Report, it was suggested that the ESSR fishery would benefit the inland First Nations if they harvested it but the ESSR would not benefit the marine commercial fishery if they had an allocation.

The Union is providing one example of a fabricated sharing arrangement on the Skeena. It has an exploitation rate of 30% to set the mixed stock ceiling, and it has a 30%-70% sharing allocation between First Nations and the marine commercial fishery (NNFC are commercial). Please refer to attached sheet.

The spreadsheet example shows 5 run sizes (RTC Return to Canada) and three scenarios of sharing arrangements. Firstly the ESSR becomes part of the TAC, and the share is portioned out according to the 30%-70% arrangement. The 30% ER sets the mixed stock cap which has to be shared out between the First Nations and the marine commercial fishery. In this scenario, the Tsimshian, Gitxsan, and Lake Babine Nations shares are very similar, with a small unharvestable Tsimshian Babine surplus. The marine commercial fishery is able to harvest only twice the First Nations' combined harvest (in spite of having a 70% allocation) and has a large Babine surplus. They have to make a business arrangement with the Lake Babine Nation if they want it harvested.

In the second scenario, the ESSR is not included in the TAC so the TAC is based on the 30% mixed stock ER. The ESSR is divided up between the Gitsxan and the Lake Babine Nation. The Tsimshian can only harvest about 1/3 of what the Gitsxan and Lake Babine Nations harvest. The commercial harvest is less and there is no ESSR for them or for the Tsimshian

In the third scenario, the ESSR is again not included in the TAC and the TAC is based on the mixed stock ER. The ESSR is taken by the Lake Babine Nation only (as it is today). The Tsimshian and the Gitxsan harvest the same amount of fish. The marine commercial fishery harvests the same amount as they did in the previous example. The Lake Babine Nation, at low run sizes, harvests 5 time the amount that the Gitxsan or the Tsimshian do, and ¾ of the marine commercial harvest, even though the sharing arrangements remain at 30%-70%. At higher harvest levels, the Lake Babine Nation harvests 11 times more fish than the Tsimshian and the Gitxsan and 1 ½ times more that the marine commercial.

This kind of arrangement makes for poor cooperation between the parties.

Run minus (esc + FSC) = TAC

ER =30% * run

run size RTC	Escape & FSC	Total TAC	Mixed Stock ER	DFO Mixed allowable	ESSR or Babine only
2,000,000	1,050,000	950,000	30%	600,000	350,000
3,000,000	1,050,000	1,950,000	30%	900,000	1,050,000
4,000,000	1,050,000	2,950,000	30%	1,200,000	1,750,000
5,000,000	1,050,000	3,950,000	30%	1,500,000	2,450,000

First Nations allocation is 30% of TAC. So FN get 30% of mixed stock TAC = 0.3*600,0000 = 180,000, which is their total allocation unless the ESSR also makes up part of the TAC

Reg comm, Tsimshian and Kitwanga are mixed stock fisheries and their allocation has to come from the Mixed Stock Allowable.

Gisgegas and LBN harvest Babine only

ESSR is the total sockeye allocated to each group that cannot be caught due to fish management plans

ESSR included in TAC

	Reg comm. & FN shares		ESSR
Total TAC	70% reg com	30% FNs	Over esc (Babine)
950,000	665,000	285,000	0
1,950,000	1,365,000	585,000	0
2,950,000	2,065,000	885,000	0
3,950,000	2,765,000	1,185,000	0

Gitxsan take 1/2 of their share in the mixed stock fishery at Kitwanga& half their share at Gisgegas from Babine only sockeye

					Kitwanga											
Total FN share	Tsimshian Mixed stock	Tsimshian Babine only	Tsimshian ESSR	**Total Tsimshian**	Gitxsan Mixed stock	Gitxsan Babine only	Gitxsan ESSR	**Gitxsan total**	LBN Mixed stock	LBN Babine only	LBN ESSR	**LBN total**	spawn chan reload	Reg comm mixed	Reg comm Babine only	Reg comm ESSR	**Reg comm Total**
285,000	90,000	0	5,000	**95,000**	47,500	47,500	0	**95,000**	0	95,000	0	**95,000**	**-**	**462,500**	0	202,500	**665,000**
585,000	135,000	0	60,000	**195,000**	45,000	150,000	0	**195,000**	0	195,000	0	**195,000**	**-**	**720,000**	0	645,000	**1,365,000**
885,000	180,000	0	115,000	**295,000**	60,000	235,000	0	**295,000**	0	295,000	0	**295,000**	**-**	**960,000**	0	1,105,000	**2,065,000**
1,185,000	225,000	0	170,000	**395,000**	75,000	320,000	0	**395,000**	0	395,000	0	**395,000**	**-**	**1,200,000**	0	1,565,000	**2,765,000**

2000-2010

ESSR not included

All 3 FN share in 30 % of mixed stock ESSR divided from Gisgegas up to L. Babine

	Reg comm. & FN shares		ESSR
Total mixed stock TAC	70% reg com	30% FNs	Over esc (Babine)
600,000	420,000	180,000	350,000
900,000	630,000	270,000	1,050,000
1,200,000	840,000	360,000	1,750,000
1,500,000	1,050,000	450,000	2,450,000

All 3 Skeena FNs share in the mixed stock allocation. ESSR is divided between Gisgegas and Lake Babine Fisheries

					Kitwanga											
Total FN share	Tsimshian Mixed stock	Tsimshian Babine only	Tsimshian ESSR	**Total Tsimshian**	Gitxsan Mixed stock	Gitxsan Babine only	Gitxsan ESSR	**Gitxsan total**	LBN Mixed stock	LBN Babine only	LBN ESSR	**LBN Total**	spawn chan reload	Reg comm mixed	Reg comm Babine only	Reg comm ESSR	**Reg comm Total**
180,000	60,000	0	0	**60,000**	60,000	0	115,500	**175,500**	60,000	0	115,500	**175,500**	115,500	**420,000**	0	0	**420,000**
270,000	90,000	0	0	**90,000**	45,000	0	346,500	**391,500**	90,000	0	346,500	**436,500**	346,500	**630,000**	0	0	**630,000**
360,000	120,000	0	0	**120,000**	60,000	0	577,500	**637,500**	120,000	0	577,500	**697,500**	577,500	**840,000**	0	0	**840,000**
450,000	150,000	0	0	**150,000**	75,000	0	808,500	**883,500**	150,000	0	808,500	**958,500**	808,500	**1,050,000**	0	0	**1,050,000**

2011-2014

ESSR not included

All 3 FN share in 30 % of mixed stock ESSR in Lake Babine only

	Reg comm. & FN shares		ESSR
Total TAC	70% reg com	30% FNs	Over esc (Babine)
600,000	420,000	180,000	350,000
900,000	630,000	270,000	1,050,000
1,200,000	840,000	360,000	1,750,000
1,500,000	1,050,000	450,000	2,450,000

All 3 FNs share in the mixed stock allocation. ESSR all taken by LBN

					Kitwanga											
Total FN share	Tsimshian Mixed stock	Tsimshian Babine only	Tsimshian ESSR	**Total Tsimshian**	Gitxsan Mixed stock	Gitxsan Babine only	Gitxsan ESSR	**Gitxsan total**	LBN Babine	LBN Babine only	LBN ESSR	**LBN Total**	spawn chan reload	Reg comm mixed	Reg comm Babine only	Reg comm ESSR	**Reg comm Total**
180,000	60,000	0	0	**60,000**	60,000	0	0	**60,000**	60,000	0	231,000	**291,000**	115,500	**420,000**	0	0	**420,000**
270,000	90,000	0	0	**90,000**	90,000	0	0	**90,000**	90,000	0	693,000	**783,000**	346,500	**630,000**	0	0	**630,000**
360,000	120,000	0	0	**120,000**	120,000	0	0	**120,000**	120,000	0	1,155,000	**1,275,000**	577,500	**840,000**	0	0	**840,000**
450,000	150,000	0	0	**150,000**	150,000	0	0	**150,000**	150,000	0	1,617,000	**1,767,000**	808,500	**1,050,000**	0	0	**1,050,000**

Change Approach 4

The UFAWU-Unifor is opposed to ITQ fisheries. However, we are certainly supportive of a socio-economic analysis of the ITQ approach.

However, we are horrified at the false advertisements for ITQ fisheries at the beginning of the analysis on page 43. It certainly slants the Report.

Firstly, if all the literature on ITQs had been examined, as stated on page 43, then a more careful analysis should have taken place. Dr. Pinkerton kindly forwarded a lengthy bibliography of ITQ studies and assures us that there are many other reports she did not have time to include.

We have appended Dr. Pinkerton's Report as part of our reply to this Report.

We are responding to those things in the Fraser Stage 3 Report that the Union has collective knowledge of.

1) Improved landed prices (p43) – In table 1.2, on page 56, prices for Area F ITQ chinook are only 2% higher than the Area G non-ITQ chinook. Eighty percent of the Sockeye harvested in the north is caught in the regular gillnet fishery, and prices are 24% higher than the on the south coast, where 65% of the sockeye is harvested in ITQ fisheries. There is nothing to show that the buyers will pay higher prices over the long term.

2)Price increase (p44): There is no rationale for a price increase of 10% for the ITQ fishery. The report itself says that price increases might not occur.

3) Slower and more controlled fishing (p43) – The Area F ITQ chinook fishery has been called the most intense derby fishery on the coast by leaders of Area F who support ITQs. On the north coast, quality was maintained in the 6 million Area 6 pink harvest by controls other than ITQs.

4) Halibut example (p43): There are few halibut boats who are fishing their own quota. Most halibut boats are fishing leased quota for a landed value of between $1-$2 per pound while the absentee quota holder scoops $4-$5 per pound. The added value goes to the slipper skipper or the armchair fisherman. There has been at least two fishermen's 'movements' to try to create a fair lease price.

> BC LONGLINE FISHERMEN'S ASSOCIATION
> WWW.BCLONGLINE FISHERMEN.COM
> February 23, 2009
>
> Notice of Industry Standard for 2009
> Issued to all parties interested in leasing Halibut Quotas for 2009:
>
> The B.C Longline Fishermen's Association was incorporated in December 2008 by active hook and line fishermen with a mandate to bring viability and sustainability back to active fishermen.
>
> Our large and growing membership harvests the majority of coastal T.A.C of Halibut and they own or control a large portion of Halibut quota. Support from within the industry and the fishing fleet is strong and gaining significant momentum.
>
> For the long line fishing industry to remain healthy and prosperous in the future, it must continue to be sustainable. Sustainability is not only gauged by the health of the stocks, but also by the viability of the persons involved in the harvest. In the past year, the latter has been compromised and in order for the industry to survive, this has to change.
>
> Last year's high lease price resulted in a large portion of the T.A.C being left in the water. This was a direct result of the active fishermen saying "NO" to these high lease prices. This may be very detrimental to the Industry if it is viewed that we are unable to catch our 88% share. In fact, other parties are already making that very argument.

To that end, the proposal of this Association and its membership is to create an Industry Standard on leased quota of Halibut whereby the minimum price paid to the boat is $2.00 per pound on leased fish. When the fish price exceeds $4.00 per pound, this will be shared between the boat and the license holder on a 50/50 split.

It is also proposed that the license holder will be responsible to pay all license fees attached to that license as a cost of doing business. The active fishermen's cost of doing business is paying the escalating monitoring fees that are associated with catching the fish.

This proposal is the first step of our Association to bring viability back to the active fishermen who are the backbone of this industry. Furthermore, we feel it is in our best interest to work with the processing companies and individual license holders to foster a mutually beneficial and transparent business relationship. We look forward to your support.

The Directors, BC Longline Fishermen's Association

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5) Effort loss (p44):

The Area F troll is indeed instructive. It had a large and sudden loss in effort after the introduction of ITQs and had a further loss as they suffered through a number of Area repicks where the total fleet increased in size. In 2008, the Area F fleet increased to 282 vessels.

Catch per vessel and the number of active fishermen.:

Year	# licenced vessels	# Active vessels	# Inactive Vessels	Total boat days	Total Area F Chinook catch	Total Area F Coho catch	Chinook catch per active vessel	Coho catch per active vessel
2003	154	126	28	4740	137,329	213,362	1,090	1,693
2004	159	137	22	5196	167,508	257,185	1,223	1,877
2005	168	140	28	6361	174,806	307,906	1,249	2,199
2006	246	165	81	5571	151,516	161,857	918	981
2007	246	147	99	4367	83,235	180,634	566	1,229

One of the Union's committee members sent the following memo regarding hook and line groundfish.

> Someone gave me a five year chart on monitoring ground fish trips. This chart shows a steady decline of around 10% per year in trips made under the quota regime. The vessels involved have declined at a slightly greater rate. This trend varied in 2012/13 only because boats driven out of the tuna fishing by American closure tried to find work in the ground fishery. The decline continued the next year.

GHLCMP Landings / Trips History

Sector	2009/10	2010/11	2011/12	2012/13 FTYE	2013/14 Bu (All -10%)
Halibut	196	156	123	123	
Sablefish	53	57	59	59	
K/L Combo	80	85	91	100	
Dogfish	212	94	39	43	
Lingcod	177	184	140	192	
Outside ZN	215	216	225	239	
Inside ZN	60	53	45	39	
Charters	22	22	21	21	
Seamount	6	7	6	6	
Totals	1,351	1,204	1,049	1,122	

6) Effort loss (p44): On what basis does the report determine that there will be a 10% reduction in effort in the salmon fishery?

7) Small bite fisheries (p45): by definition only small harvests can be taken in small bite fisheries so the gain in value per fisherman would be low. However, small bite fisheries are taking place at present without ITQs – using pooled fisheries, non-transferable quotas, and draw fisheries.

8) Access to Fraser pinks (p46): The Fraser pink fishery has been an ITQ fishery for 4 years so the promise of an increased Fraser pink catch of 2 million make the page 46 calculation a large error.

9) Change in total net income from fishing(p.46):The Report should remove the calculations that include the increase in Area A seine pink harvests since they are already occurring. This reduces the 8.4 million dollars by 75%, according to the Report. The fleets should have the 10% price increase removed and the trollers in Area F and H are already engaged in ITQ fisheries so we shouldn't assume that the proposed 10% troll reduction (or any price increase) would apply to those fleets. Lease costs should be added.

10) Lease costs: The Union would challenge the Report to identify a fishery where lease costs were attributed as has been applied to Change Approach 4 on page 50 of the Report. The following are two examples of how big boat deckhands are treated in the real world.

TRAWL DECKHANDS AND ITQs

A report on quotas commissioned by the Canadian Groundfish Reasearch and Conservation Society, the Province and the DFO shows that ITQs have reduced crew shares for Trawl deckhands. The report, 'Analysis of Quota Leasing in the Groundfish Trawl Industry' says that deckhands' shares have been reduced to as low as 19% of gross stock.

The report looks at 6 scenarios using actual costs and fish prices. Two example use 2003 market conditions/fishing costs with 40% leasing and 100% leasing, two examples use 2006 firm market prices/2006 costs with 40% and 100% leasing and two examples use 2006 moderate fish prices/2006 costs.

The crew shares drop from 42% to 32% in the '2003 market scenario" when quotas move from 40% leased fish to 100% leased fish. In the '2006 firm market scenario' crew shares dropped from 34% to 26% and in the 2006 moderate market the crew shares dropped from 30% to 19% when leased fish increased from 40% to 100%.

Quota lease share of gross stock moved from 11% to 28% in the 2003 example, from 10% to 26% in the 2006 firm market scenario, and from 13% to 32% in the 2006 moderate market example.

	2003 40% lease	2003 100% lease	2006 firm 40% lease	2006 firm 100% lease	2006 mod. 40% lease	2006 mod 100% lease
Gross stock	57,510	57,610	41,708	41,708	33,932	33,932
Quota lease %	11%	28%	10%	26%	13%	32%
Crew share%	42%	32%	34%	26%	30%	19%

Nelson S. Analysis of Quota Leasing in the Groundfish Trawl Industry p. 21

When trawl quotas were first 'given out' or gifted to vessel owners, the owners agreed that the 'gifted' quota (which they had not paid for) would never be charged as a cost against gross stock. Only leased quota costs would be deducted. However, practices soon changed. Now it is common to charge a lease price against gross stock for the original quota which 'came with the boat'. The rationale for the charging of the gifted quota against the gross stock is because the vessel owner could have leased the fish out to someone else and have been paid the lease value, so he has every economic right to charge his own crew for it.

The report says that vessel owners are altering their settlement practices (moving from 40% to 100% leasing charges) in order to improve returns to the quota holders.

The report was commissioned in order to evaluate why the crew's take home pay was falling dramatically since 2003. The report says that the raising Canadian dollar, falling fish prices and increasing costs are other culprits for lower crew earnings. (The Fisherman December 2007)

$1.50/lb	**LEASED QUOTA 900+ SOCKS**			
	QUOTA ARRANGEMENT			
$4,950 TOTAL EARNINGS				$6,750
35% FOR QUOTA LEASE		35%	x	$2,363
65% FOR GROSS STOCK		65%		$4,388
$4,388	**GROSS STOCK**			**$4,388**
-$1,000	? FUEL		-	$1,000
$3,388	NET STOCK			$3,388
$3,388	**NET STOCK**			**$3,388**
			x	36%
BOAT SHARE 4/11 (36%)				$1,220
$1,220				
				$3,388
CREW SHARE: 7/11 (64%)			x	64%
$2,168				$2,168
		÷ tot lbs		4,500
PRICE PER POUND FOR CREW				$0.48
~$0.48 / lb				

2008 Salmon Seine Example

In the first Area A seine quota fishery the buyer leased the quota back to the crew and took it off the top.

Fishermen tied up over this breech of the UFAWU Share Agreement.

Fishermen were settled without any quota charges.

However, the buyer reduced the price of sockeye paid to the crew from $1.50 to $1.10.

The average lease cost of a Fraser sockeye quota this year is 25% to 40% of the value of the catch.

Change in Fishing Income by Social Group

Table 16 on page 47 shows (if you do the calculations) that with the north and south coasts combined, 50% of the 'Value Added' goes to the quota owner ($3.5 million) and 50% to the skipper and crew which, the Report says, is 3.5 million dollars. However, the $ 3.5 million is without quota costs, and if recent experiences are accurate, the 3.5 million to the working fishermen will be reduced by the subtraction of quota costs or by lower salmon prices.

Table 18 shows that most of the Value Added per Vessel goes to the seines ($29,000 and $66,000), a smaller amount to the trollers ($14k, 7k and 4k), with Area H getting the least, and next to no benefit to the gillnetters ($3k, 2k, 1k). ITQs would not have an even benefit for all gear types.

Improved Management Relations with First Nations

Although not noted under the other Change Approaches, once a First Nation has an allocation, they do not require ITQs to disaggregate licenses to create mosquito fleets. It would appear to us that it would be no more difficult to create a mosquito fleet under other allocation approaches.

There is nothing special about ITQs and DFO and cooperation. We would be surprised if DFO increased the Cultus or Nanika harvest rates because fishermen went to quota. In fact, seines have agreed to sockeye ITQs on both the Fraser and the Skeena systems and unbelievably the Cultus and Nanika remain bottle necks. The Union believes that cooperation between First Nations and the marine commercial fleet will bring management dividends to all. We should not have to privatize the fishery to 'buy' DFO cooperation.

Summary and Conclusions

This Report is difficult to understand. Many of the figures relied on in the Report are difficult to understand because their derivation is not explained. The 5% and 10% increases in landed value solely due to allocation plans are unsupported.

Social concerns are reduced to income and employment. Impacts of allocation changes on shoreworkers, processors and community infrastructure and effects on coastal cultural are not are not analysed. Geographic displacement through the Mifflin Plan was a tremendous negative force in the communities where our members lived.

The Socio-Economic Implications of Suggested Approaches for Updating the Commercial Salmon Allocation Framework (Fraser Report Phase 3) should be a linchpin for discussions between gear types, communities and First Nations. It is important. However**,** this report must be re-written to reflect the reality of ITQs on the BC coast. The Report's assumptions are flawed.

Problems/issues with Sandy Fraser's report related to his positive evaluation of ITQs

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Report for UFAWU-Unifor
June 14, 2014

The most overarching problem in this report is that Fraser appears to be unaware of the substantial peer-reviewed literature worldwide which has identified serious flaws in catch shares or ITQs systems, flaws which make these systems unable to meet the management objectives they are claimed to meet. Instead, they create another series of problems. We append a list of a small sample of this literature, and will gladly supply any papers which are not readily available, and/or a much longer list. In addition, Fraser is unaware of management systems worldwide which have addressed the problems ITQs are intended to solve with different approaches. Although we understand that he intends to limit himself to what has been suggested by industry groups, he does not hesitate to bring in outside examples of how ITQ systems work and to praise them. It would be a positive contribution to do likewise with alternative approaches to solving the problems he identifies.

(1) The report should consider the "true cost" as calculated by ecological economists (Daley and Cobb 1994, Victor 1998, Czech 2013, van der Bergh 2013), taking into account the strangling of coastal communities historically dependent on fisheries. Of course, the cost is related to the central objective. A central objective of coastal communities and fishermen's organizations is not simply to have a progressively smaller group of highly efficient fishermen who may not be locally-based, but rather to have livelihoods and infrastructure supporting a broader spectrum of fishermen. They don't necessarily want the most efficient system if it is at the expense of greatly increased inequality and if it creates a situation in which many families cannot access their traditional territory and fishermen don't have access to boats for basic transportation and subsistence. This is especially so for the many coastal communities that are not accessible by road, or whose roads are seasonally unusable. ITQs tend to eliminate the smaller community-based fishermen who are most involved in the local economy and who employ more people per boat. When economic change of this sort happens at the cost of increased social inequality, the social costs of dealing with rising inequality are higher than the benefits to the few. The costs imposed on government services and the declining health of the community have not been factored into analysis of these policies.

(2) The report should consider more thoroughly the implication of how the salmon fishery differs from the best case scenarios for ITQs, e.g., groundfish with relatively stable annual production. The OECD report by European and North American economists (Office of Economic Cooperation and Development 1999) found that pelagic fisheries

such as salmon did not make good ITQ candidates, because of the inter-annual variation in run size and the unpredictability of both run size and timing up to and beyond the beginning of the fishing season. In ITQed fisheries, quota is bought or leased well before the season, so one would expect problems when people have to invest in quotas before they even know if a fishery will occur or what size and time it will be if it does occur. Salmon fisheries are often shut down in season to protect various stocks whose migration timing is not known in advance.

(3) The report should consider that the reasons some salmon area associations support ITQs is not because they think it would meet management objectives effectively, but rather because it would benefit them individually: it would be a good way of being bought out by aboriginal fisheries at the highest price. Fishermen such as David Boyce have been quite public about this in the discussion of ITQs on BC FishNet. Indeed, it is amazing that any fishermen would object to ITQs in salmon, because it offers a way for them to capture the value of a publicly owned resource, and pass the costs on to all future generations of fishermen. Economist Tom Tietenberg (Tietenberg 2002) suggests that many government agencies grant a windfall of public wealth to the first generation of fishermen who transfer their license privilege into ITQs in exchange for the agreement of the first generation to take on many management costs and that it is ‘‘politically expedient to allocate a substantial part of the economic rent to existing users as the price of securing their support for moving to ITQs.’’ This finding is consistent with accounts of how ITQs were introduced in the BC halibut fishery, over considerable opposition from fishermen (Pinkerton and Edwards 2010). In contrast to the fishermen who support ITQs, First Nations' fishing organizations have consistently opposed ITQs and continue to do so today (Pinkerton and Edwards 2010). Fraser mentions toward the end of the report, in a different context, that First Nations "generally disapprove" of ITQs, which poorly captures the degree and depth of their opposition.

(4) The report should recognize that ITQs do not increase safety, but instead do the opposite: (Windle et al. 2008, Emery et al. 2014).

(5) The report is optimistic about the presumed record of avoiding corporate concentration in ITQed fisheries, but does not consider the evidence that corporate control and influence on price -- the presumed targets of limiting corporate concentration – escape detection under ITQs (Pinkerton and Edwards 2009). Unequal access to capital markets and the transfer of quota through the market has meant that quota has gravitated toward those who received an initial allocation of quota, at the expense of new entrants or smaller boats with less quota. Processor have acted as the initial lessees of quota and control the market (and often the price) and so it is inaccurate to suggest that ITQs have been successful in this regard and can serve as models.

(6) The report should consider that fishermen in a relatively homogeneous group in the same area (such as the area-based gear groups in the salmon fishery) have strong incentives to self-regulate, and can do this more effectively than a government imposed system (e.g., Schlager and Ostrom 1993, Wilson et al. 1994, Pinkerton 1994, Jentoft and McCay 1995, Dietz et al. 2003, Wilson et al. 2003, Armitage et al. 2009). Market mechanisms incentivize individualistic behaviour and self-interest rather than rule-making, monitoring and enforcement of rules by fishermen and their organizations. This year the fishermen's organizations on the east coast which fish Atlantic halibut are putting forth an industry-supported proposal to manage that fishery through a system similar to the former layup system in Pacific halibut (Pinkerton 2013) which ended the race for fish and delivered the

kind of market benefits (reduced costs, no racing or crowding on the grounds, etc.) (Thomson 1975) that ITQs are supposed to deliver.

(7) The report uses the ITQed BC halibut fishery as an ideal example of stopping the race for fish, and achieving increased value and product quality, but ignores that fact that these results were achieved in former decades by fishermen's associations making their own rules for how much time individual fishermen would spend on the grounds---the layup system. The report also ignores the literature on the problems of ITQs in halibut (Pinkerton and Edwards 2009) which has caused the academic economists to remove it from its former poster child status as the ideal example of ITQs (Pinkerton 2013).

(8) The report emphasizes the importance of output controls in ITQs, and suggests that the adoption of ITQs will allow input controls to eventually become irrelevant. The literature suggests that the opposite is true: that more input controls are necessary to make ITQs work (Emery et al. 2013).

(9) Former DFO employee Michele James (James 2008) notes that ITQs may lead to higher monitoring and enforcement costs for fishermen but lower costs for government, as indeed they have in the halibut fishery (Pinkerton 2013). Fraser's estimate of the increased costs of monitoring may be a significant under-estimate of these costs, which were about $9,000 for a halibut fisherman for a combination of on-board camera and dockside monitoring (Davidson 2010, Pinkerton 2013) (vs. The $2,500 Fraser estimates). Fraser later states that DFO's management costs might rise under ITQs, but we doubt this, because ITQ systems tend to download most management costs onto fishermen. In an environment of continual DFO budget cuts, there is indeed little likelihood that DFO would support a policy change which would impose increased costs on the agency. It would more likely seek the opposite. A number of analysts believe that greater opportunity to download costs is government's real incentive for instituting ITQs (Scott 1998, Tietenburg 2002, Pinkerton 2013).

(10) The report's projections about how leasing would operate is not consistent with how leasing is currently operating in other ITQed fisheries. It states that some fishermen would lease quota from others and hypothesizes how this would affect the lessees*:*
"In this study ***we have assumed that the additional cost*** [of leasing quota from other fishermen] ***is not included prior to the determination of crew and skipper shares.*** *This implies that the amount of revenue on the table in negotiations between the parties is limited to value added available net of wage payments in the fishery.* ***We have assumed that the entire difference in value added net of wage payments between the base case and this change approach are paid out for quota leases.*** *This amounts to about $5 million over the fishery as a whole or between 8% and 10% of the landed value in the fishery."*

Stuart Nelson (Nelson 2011) found that there was a ''high degree of leasing activity'' in the BC halibut fishery, with the lease price averaging $5.15/lb, or 72% of the average landed value. This figure is consistent with findings in other ITQed fisheries (van Putten and Gardner 2010)**.** Unfortunately, the impact of leasing on crew shares is not what Fraser assumes. It is standard industry practice in the halibut fishery for skippers to deduct the quota lease price from earnings, even if they own all of the quota being fished, and to pay the crew a share out of the remainder. A deckhand who formerly received a 20% share now receives 1-5% (Pinkerton and Edwards 2009, Butler 2004). Actually, what the crew receives with ITQs is no longer properly called a share, but is rather a wage: what the market will bear. This is a highly significant impact of ITQs that should be communicated in this report. It is therefore not accurate to state in the conclusion of

the report on option 4 that *"The overall impact on the financial and social viability of fishing is likely to be generally positive. Average incomes of crew and skippers in the fishery are projected to increase."* Pinkerton and Edwards (2009) found that even though the value of the halibut fishery has increased by 25% between 1990 and 2007, the proportion of that value retained by the crew share has dropped by 73%.

(11) Capital costs of quota for the second generation of quota owner has not been included in the cost estimates. Although the first generation is usually grandfathered into their quotas, the second generation normally incurs significant debt in acquiring quota, and thus no longer enjoys the lowered fishing costs of the first generation. Instead of having overcapitalized vessels because of a race for fish, they now have overcapitalized quotas (Edwards et al. 2006). The cost of licence and quota together is estimated to be c.600% higher in constant dollars than a licence was before ITQs (Pinkerton 2013).

(12) Fisheries management scholars in a report prepared for the Royal Society of Canada have noted that ITQs are not compatible with the precautionary approach, such as is being taken in the Wild Salmon Policy (de Young et al. 1999) for a number of reasons, including the ability of the management system to be adaptive to change, complexity and uncertainty. ITQs reduce these important capacities in a system and are very difficult and costly to reverse, although the Faroe Islands did reverse their ITQ system after only one year when they understood the implications (Gezelius 2008).

In contrast, the north coast region is in the process of organizing itself into a co-management system which would deal with these issues. In an era of rapid climate change, ocean acidification, and ecosystem uncertainty, the work going on to bring fishermen's groups and communities together to agree on multiple management issues has been progressing for the last five years (Pinkerton et al. 2014). This approach offers a far better prospect for building a management system which can cope with our uncertain future.

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Comments on Sandy Fraser's Preliminary Draft Report

Prepared by Karl K. English

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and circulated to the other SCC members on 11 June 2014

The preliminary draft report entitled "The Socio-Economic Implications of Suggested Approaches for Updating the Commercial Salmon Allocation Framework" has described a useful framework for assessing the different proposals for changes to the CSAF, however, there are several deficiencies regarding key assumptions and how the proposed changes were defined and affect the results presented in the draft report. The most important of these deficiencies are listed below:

1. The base case should include present fishery operations that would continue in the future if there were no changes to the CSAF:
    a. The number of active F and N licences fished by First Nation fisheries in Marine Area A-H fisheries would be equal to the 2010-13 average for each fleet (see red numbers in Table 1 below);
    b. The proportion of the Total Return to Canada harvested in marine fisheries would be equivalent to the proportions harvested in 2010-2013
    c. The number of licences allocated to First Nation Inland Fisheries would be equal to the current DFO allocation of these licences (see green numbers in Table 1);
    d. The seine and troll ITQ fisheries defined in the IFMPs for the last two years (e.g. Area A fisheries for Skeena sockeye and pink salmon, Area F troll fisheries for Chinook);
    e. Fraser River Economic Opportunity fisheries for sockeye, pink and chum; and
    f. Note: The Base Case forecasts of the average commercial harvest by species and production are in Table 1.1 in Sandy's preliminary report must be checked. The values for the chum and coho harvest in the South Inside in-river fishery appear to be reversed. The chum catch should be the 300,766 kg value shown in the coho row and the coho catch was likely closer to the 2571 kg shown in the chum row.

2. Both of the "middle ground" proposal described in the report do not reflect the proposals from the SCC or CSAB with regard to the creation of a First Nations harvest share that can be fished in First Nation fisheries outside of the times and areas defined for Area A-H fisheries.
    a. The net effect of creating new First Nation fisheries would be to increase the portion of F and N licences fished each year.
    b. Under Change Approach 2 (the CSAB "middle ground" proposal) all the inactive F licences would be activated through the transfer of harvest shares to Inland First Nation commercial fisheries and there would be no change in the portion of N licences fished each year.

c. Under Change Approach 3 (the SCC proposal) half of the inactive F and N licences would be activated through the transfers of harvest shares to Inland First Nation fisheries and the other half of the inactive F and N licences would be activated through increased participation of First Nation fishers in the A-H fisheries (see Table 1 for estimated changes in active licences and a Skeena sockeye example showing the change in harvest share percentages based on the changes in active licences).

3. There are several assumption associated with Change Approach 4 that are not realistic and should be modified as follows:
    a. The ability to transfer individual shares (ITQ) between fleets and First Nations can only be implemented for the six fisheries where CTACs are currently defined (i.e. North Sockeye, Barkley and Fraser sockeye, Fraser pink, North Chinook and South Outside Chinook) and a few other fisheries where conservative CTACs could be defined (North and Central pink, Nitinat chum and South Inside chum);
    b. For those fisheries where ITQ's are currently being implemented, the increase in price would be just 5% as per other Change Approaches rather than the 10% increase in the preliminary analysis. The 10% increase in price would only apply to the new potential ITQ fisheries listed in 3a above.
    c. For those fisheries where ITQ's are currently being implemented, there would be no change in the number of vessels fishing and fishers because the change (reduction or increase) in vessels fishing and fishers has already occurred. The change in vessels fishing and fishers resulting from Change Approach 4 would only apply to the new potential ITQ fisheries listed in 3a above.
    d. The entire unutilized surpluses of Fraser River pink salmon not be accessible just because of the move to ITQ fisheries for Fraser sockeye and pink salmon because of the overlap with coho run-timing and coho conservation concerns. A more realistic assumption would be that 60% of the unutilized surplus would be accessible. This is 100% of the 60% of the Fraser pink run available prior to the usual coho closure date in early September.

4. With regard to the key flexibility in the implementation of future salmon fisheries, CSAB and First Nations are seeking greater flexibility regarding how their respective fisheries are conducted. The socio-economic report should include the information contain in points 3 and 4 of the summary report entitled: "Summary of discussions regarding the CSAB "Evergreen" proposal and SCC First Nations proposal for changes to the Commercial Salmon Allocation Framework (CSAF)".

Table 1. Estimate of changes in First Nation's harvest share in marine and inland fisheries assuming all inactive F and N licences are activated through the SCC proposal with a 50:50 split between marine and inland fisheries.

													Split	50%	50%	
F and N Licence Types active in marine fisheries (i.e. at least one landing per year)										**Base Case Licences**				**SCC Proposal Licences**		
Licence Type	**Area**	**2009**	**2010**	**2011**	**2012**	**2013**	**2010-13 Average**	% fished of Total Marine Licences	Total Marine Licences	FN's Marine Area A-H Fisheries	FN's Inland Fisheries	FN Total	Additional F & N Licences Activated	FN's Marine Area A-H Fisheries	FN's Inland Fisheries	FN Total
F	**Area A**	4	1	5	4	6	4	40%	10	**4**	**19**	23	6	7.0	22.0	29.0
	Area B	6	8	10	10	11	9	75%	12	**9**	**23**	32	3	10.5	24.5	35.0
	Area C	17	8	20	26	24	19	46%	41	**19**	**87**	106	22	30.0	98.0	128.0
	Area D	18	35	44	40	25	36	46%	79	**36**	**14**	50	43	57.5	35.5	93.0
	Area E	0	5	6	4	5	5	26%	19	**5**	**70**	75	14	12.0	77.0	89.0
	Area F	4	5	5	8	12	7	58%	12	**7**	**21**	28	5	9.5	23.5	33.0
	Area G	6	6	8	6	7	6	25%	24	**6**	**0**	6	18	15.0	9.0	24.0
	Area H	1	1	0	0	0	0	0%	3	**0**	**20**	20	3	1.5	21.5	23.0
N	**Area C**	117	107	113	123	97	110	57%	193	**110**		110	83	151.5	41.5	193.0
	Area D	26	54	33	28	20	33	58%	57	**33**		33	24	45.0	12.0	57.0
	Area E	3	4	3	1	1	2	50%	4	**2**		2	2	3.0	1.0	4.0

All Area A-H licences active in marine fisheries (i.e. at least one landing per year)										**Base Case Licences (%)**				**SCC Proposal Licences (%)**	
	Area	**2009**	**2010**	**2011**	**2012**	**2013**	**2010-13 Average**	% fished of Total Marine Licences	Total Marine Licences	FN's Marine Area A-H Fisheries	FN's Inland Fisheries	FN Total		FN's Marine Area A-H Fisheries	FN's Inland Fisheries	FN Total
	Area A	68	27	61	40	59	46	43%	108	3.7%	17.6%	21.3%		6.5%	20.4%	26.9%
	Area B	109	102	104	88	90	96	57%	168	5.4%	13.7%	19.0%		6.3%	14.6%	20.8%
	Area C	431	337	366	383	336	355	56%	633	20.4%	13.7%	34.1%		28.7%	22.0%	50.7%
	Area D	203	274	270	230	192	241	63%	380	18.2%	3.7%	21.8%		27.0%	12.5%	39.5%
	Area E	189	308	296	166	171	235	61%	387	1.8%	18.1%	19.9%		3.9%	20.2%	24.0%
	Area F	150	147	143	160	133	145	60%	241	2.9%	8.7%	11.6%		3.9%	9.8%	13.7%
	Area G	101	103	110	97	88	99	79%	125	4.8%	0.0%	4.8%		12.0%	7.2%	19.2%
	Area H	42	57	42	26	19	36	49%	74	0.0%	27.0%	27.0%		2.0%	29.1%	31.1%
Example: First Nations share of Skeena Sockeye																
25%	Area A	4	1	5	4	6	4	40%	10	4.0	19.0	23.0		7.0	22.0	29.0
75%	Area C	134	115	133	149	121	129	55%	234	129.0	87.0	216.0		181.5	139.5	321.0
Skeena Sockeye share based on licence allocations*										16.2%	14.7%	30.9%		23.1%	21.6%	44.7%

* Even after all the F and N licences were activated there would still be 173 inactive Area C licences available for lease.

Comments on "The Socio-Economic Implications of Suggested Approaches for Updating the Commercial Salmon Allocation Framework"

Submitted by: Lower Fraser Fisheries Alliance (LFFA) and Okanagan Nation Alliance (ONA)

Draft Report provided by Sandy Fraser - May 23, 2014

Since the fall of 2013, members of the Salmon Coordinating Committee (SCC) and additional technical advisors selected by First Nations groups have been engaged in discussions with DFO about changes to the Commercial Salmon Allocation Framework (CSAF). This process parallels a similar process undertaken between the Commercial Salmon Advisory Board (CSAB) and DFO. The two processes were asked to consider the current CSAF and its deficiencies and then propose changes. A contracted economist (Sandy Fraser) then undertook a socio-economic analysis of the 14 proposals provided by the CSAB and the SCC (13 by the CSAB and 1 by the SCC). To do so, he had to group proposals and determine overarching objectives to compare the proposals and the status quo. Below are comments on his draft report.

- The draft does not contain an executive summary – this is a very important piece to review prior to a final draft.
- On page 3 in "Introduction" it says that DFO has been working with First Nations, commercial harvesters and the Province of British Columbia. However, the Province of BC has never been to the discussion tables. If they have been invited, but have declined to attend, that should be specified as opposed to implying that they have been part of the process.
- In that same paragraph it notes that the CSAB includes representatives of the Native Brotherhood of BC. Has anyone from the Native Brotherhood been present at meetings in the past few years? They have a seat, but I am not aware that they have been attending meetings (and the fact that commercial fishing interests of First Nations are not fully represented at the CSAB is a point of contention).
- Under the "Current Allocation Framework: Identified deficiencies" (pg 4) the report is missing important deficiencies.
    - It does not acknowledge that First Nations' communal-commercial licenses are not represented at the CSAB (First Nations fishing regular commercial licenses are represented by the Native Brotherhood)
    - Noting the First Nations and commercial fishers are frustrated with the priority given to recreational chinook fisheries misses the point. It isn't the priority on its own, it is that they are given a target harvest but if they go over, then those fish are taken away from commercial sector. This makes planning difficult.

- The report clearly divides Commercial fishers and First Nations (e.g., pg 15 it says "Commercial fishers favour including ESSR harvest within the TACC while First Nations generally disagree with this approach"). Many First Nations are commercial harvesters using regular licenses as well as communal-commercial licenses. The wording in the report creates a division that doesn't exist. An alternative phrase could be: "participants at the CSAB unilaterally agree that ... while SCC reps did not".
- Pg 16: First Nations favour a First Nations commercial allocation being explicitly identified at the community level... - remove "at the community level and recognized separately from the regular commercial fishery". The SCC proposal had it as a separate commercial category in the same way as seine, gillnet, and troll are separate commercial categories.
- S-E analysis says that Approach 3 wouldn't increase harvest of TACC. However, for First Nations, early knowledge of shares will increase the ability of FNs to plan for, prepare gear, and get a market for their allocations. They would then be better able to harvest their allocation.
- Table 11, like many tables, should show impacts of the change on FNs (coastal and in-river)
- Approach 3 would result in a $2.5 million decrease in value added. The report should be more explicit about why this will decrease when in reality, many FN small fisheries have an opportunity to market the product for a premium (this is shown for river fisheries in the PSF Commercial Salmon Fisheries Financial Analysis done by Counterpoint Consulting but is similar for small coastal FN fisheries such as in the Somass and T'aaq-wiihak. Perhaps the lack of full information in this S-E analysis accounts for this misleading result).
- Why would Option 3 decrease value for coastal FNs (see above)?
    - In Sandy's explanation of Objective 3, he assumes a decrease in the number of operating vessels. But the T'aaq-wiihak experience shows that transfer of share actually resulted in substantially more operating vessels than would have been realized if the license was fished under regular circumstances.
    - Sandy's analysis assumes that fishing would be taken away from the coastal fleets in order to provide in-land access. However, the SCC proposal dealt with mobilization of current licenses held in the inventory.
    - There are many problems with Sandy's interpretation of the SCC proposal and this screws his conclusion on this Approach.
- Overall comments
    - It would be good if all tables showed the changes to the A-H fleets as well as to inland and coastal First Nations. That information is described in the text, so it should be easy to transfer it over.

- Overall comment: it would be good to have references to examples used. For instance, on p 43 the report mentions that “there are many BC fisheries that have been managed under similar systems”. It would be good to have examples.
- Suggested indicator: feasibility to implement? For instance, for Change Approach 4, it looks good on paper but would be extremely difficult to see the benefits described if implemented. Many fishers say that the markets would not accept all of the pink salmon TAC. Consider doing case studies of the options to see how they would work in different areas.
- Flawed assumptions lowered the values of first 3 Change Approaches, especially # 3.
- Assumptions are flawed partly because there is still a lack of understanding about how fisheries are managed in some areas, like the Lower Fraser River. The studies available for this analysis were incomplete and this skews potential results.
- The indicators lack a value for conservation. Some of the proposals would encourage pooling quota which could lead to use of less selective gear. Meanwhile, some First Nations’ fishing methods would be more selective, yet that value isn’t reflected in the analysis.

Overall the analysis is a good start, but points towards important gaps in knowledge and understanding that should be addressed before recommending a change to the Minister.

DFO comments to Fraser and Associates on draft report "Socio-Economic Implications of Suggested Approaches for Updating the Commercial Allocation Framework (May 23, 2014)"

June 19, 2014

Thank you for your draft report on the "socio-economic implications of suggested approaches for updating the commercial salmon allocation framework". Your report provides a useful tool for reviewing the possible implications of some of the key change elements being proposed to update the commercial salmon allocation framework (CSAF). This work should also help to inform the SCC and CSAB on desirable changes to the framework and potentially to work collaboratively.

Before providing some comments on your report, the Department thought it would be helpful to provide some context for your analysis. The socio-economic analysis was intended to inform our broader objective of updating the CSAF by identifying key proposed changes to the framework and evaluating the potential impacts of those changes using criteria that were identified by participants to reflect their diverse interests and aspirations for the commercial fishery. As you observed in the May meeting, this project has been very challenging given the complexity of the species, fisheries, and interests; and, to structure the analysis you made a number of decisions to consolidate proposals for change and the criteria to evaluate them. As a result, the final analysis necessarily does not capture all of the specific details of any proposal or evaluate all of the criteria originally proposed. In addition, while your analysis was underway a small group of First Nations Salmon Coordinating Committee (SCC) and Commercial Salmon Advisory Board (CSAB) members continued to discuss and clarify the CSAB evergreen and SCC proposals. This has resulted in further refinements to clarify, understand and refine potential change approaches where there is substantial agreement and areas where further discussion is required. We note that this work was on-going while you were doing completing your analysis. It is our expectation that the facilitator's final report will help to integrate the findings from your socio-economic study with information, observations and findings from the SCC-CSAB small group discussions, as well as, meetings with broader groups.

The following provides some of the Departments' observations on the draft socio-economic report. These are mainly aimed at a general level and, as such, this is not intended to be a comprehensive or detailed analysis of the report. In addition to comments and suggestions made at the May meetings, we expect that your final report will also be informed by the comments provided by the SCC and CSAB.

The socio-economic study provides useful information for consideration of potential change approaches, or at least key elements of those, that merit further consideration by the Department and participants. Overall, it is our view that the socio-economic analysis and your draft report have helped to focus discussions on key aspects of some of the proposed changes to the CSAF. However, we should also note that that the descriptions of the four generalized change approaches in your report did not completely capture the complexity and range in the various suggestions to change the commercial salmon framework. At the May meetings, there were a number of comments from the SCC and CSAB, who questioned the whether these change approaches adequately reflected the complexity and specific details of their proposals. Although useful for ease of analysis and to facilitate comparison of options,

the distilling of the change options into a few succinct options may have oversimplified some of the proposals. For example, commercial troll advisors did not provide you with with a specific mechanism for revising the sockeye equivalents calculation for change approach 1 and you made some assumptions about potential pricing structure changes to analyze this approach. (The Department also noted that this change approach would require annual re-negotiation to balance coast-wide gear allocations based on the new price formula and that you did not attempt to redo that process in this analysis). In addition, we noted that many of the First Nations SCC members felt that change approach 3 no longer adequately represented the First Nations SCC proposal, although we acknowledge there were divergent views on this with some strongly supporting the use of active licences to determine shares. It was noted in the SCC-CSAB small group discussion it was agreed that most, but not all, support the principle that each commercial licence has an equal share of the commercial TAC (or harvest) based on the total number of eligible licences in that licence category.

A further observation relates to the assumptions used in your assessment of the options and indicators. Many assumptions had to be made and a number of suggestions were made to provide additional details to aid in understanding the results of the analysis. Participants also disagreed with a number of the assumptions and/or results for specific indicators used in your analysis. There are several areas where a number of participants identified issues for you to consider further including:

- Under change approach 1 (least change), DFO and many participants disagreed that a 5% price increase would result. This was based on the assumption that the current sockeye equivalent formula was an active disincentive to individual harvesters pursuing value added for their harvest, however, many felt individual harvesters are doing this under the current system and that this approach would not lead to a further increase.
- Request to document the importance of price assumptions for each of the options to aid in the understanding of the results.
- Improved collaboration: many participants challenged the direction of potential impacts on collaboration between First Nations and commercial harvesters. Several noted that there are examples where moves toward clearly defined shares for all participants has dramatically improved cooperation and collaboration and that this should be a consideration for change approaches 2 through 4. Examples of improved collaboration from defined First Nations shares were discussed at several meetings and included Barkley Sound / Somass roundtable (Somass First Nations economic agreements), Nass River (Nisga'a Treaty) and others.
- Several participants requested further clarification on how changes related to uncaught TAC, business arrangements and ESSR were analyzed.
- Several other examples were cited in submissions made from participants and in the meeting notes and these should be reviewed.

One area that the Department continues to pay close attention to is the feasibility of implementing any change options and the cost implications to the Department. We think your assessment that change approach 4 will likely have the highest costs for implementation is consistent with the experience in adopting individual transferable quotas. In addition, it should be made clear there is currently insufficient stock assessment information to permit TAC based quota management in most commercial

salmon fishery areas (i.e. only 5 of the 22 major fishery production areas are currently managed using total allowable catches). As a consequence alternate methods for assigning quotas would have to be developed and/or new information collected to implement an ITQ style system as envisaged in approach 4. This would be an expensive system to develop and would entail a significant transition period in its preparation. It seems likely that the costs of implementing change approach 4 will be high as you note in your draft report but its operational requirements will also necessitate significant changes to current fisheries management practices. Our observation is that it is not clear that these considerations have been factored into the assessment of this approach.

In concluding, notwithstanding some of the challenges of the socio-economic analysis noted above, your analysis has helped provide useful analysis to support discussion of the underlying assumptions implicit in the various change proposals and has served to put into perspective some of the concerns associated with these changes. We note your conclusions that there is no one perfect approach, but that some are definitely better than others or could be substantially improved by reconsidering certain elements. You noted that some proposed changes result primarily in a re-distribution of access and value among the fleets and First Nations while other approaches may create value for all. Your analysis also indicated that the inclusion (or not) of approaches to address ESSR harvest, uncaught TAC and transfers with or without business arrangements will require careful consideration. Your identification and analysis of these key elements of some proposals will likely provide avenues for continued collaboration between FN and commercial harvesters.

Salmon Coordinating Committee review of the "Updating the Commercial Salmon Allocation Framework [:] Phase 2 Report"

Report Summary

Pam Cooley of ChooseEthical Ventures Inc. was hired in the fall of 2013 to facilitate and report on DFO's processes of engaging First Nations (through the Salmon Coordinating Committee) and commercial salmon harvesters (though the Commercial Salmon Advisory Board) about the Commercial Salmon Allocation Framework . The discussions with the Salmon Coordinating Committee (SCC) and the Commercial Salmon Advisory Board (CSAB) intended to highlight deficiencies in the current framework and suggest changes, through the development of proposals, which would improve the long-term stability, certainty and resilience of the commercial salmon allocation arrangements. These proposed changes would ideally provide more flexibility to licence holders to make effective business decisions and to respond to uncertainty in salmon abundance and changing market conditions. Discussions with the SCC and the CSAB to develop proposals mostly occurred separately, but a small working group was established in early 2014 to discuss commonalities between the proposals and to identify areas of agreement. According to draft Phase 2 Report, the following points of common interests were identified:

- Allocation arrangements should move from annual to multi-year basis;
- Harvest shares should be defined for First Nations and commercial A-H licences at the species-production area level (e.g., 22 species-production areas have been identified);
- Sockeye equivalents may be used to inform the setting of the initial allocations at the fisheries production area/fleet/FN level but would otherwise no longer be used.

After the proposals were developed, Sandy Fraser of Fraser and Associates conducted a socio-economic analysis of the various change proposals (14 from the CSAB and one from the SCC). As is touched upon in the Phase 2 Report, many participants from the CSAB and the SCC were dissatisfied with the analysis and several changes were recommended. However, limited changes were made to the final document. The Phase 2 Report does emphasize that both groups preferred Change Approach 2 and 3.

Pam's report concludes by noting the recommendations suggested by the CSAB and the SCC to move forward. The CSAB has recommended that it meet this fall to identify the initial shares at the production and fleet level while SCC members plan on "informing its communities on the deliberations of Phases 1 and 2". Her report fails to mention that besides further engagement with their communities, the SCC had recommended that DFO engage in direct bilateral consultations with BC First Nations on the process and considerations to update the allocation framework. Furthermore, the SCC had indicated that it would also like to work to develop the proposal and model potential outcomes of CSAF changes on a small number of fisheries prior to DFO making a final recommendation to the Minister. Both groups have suggested that further meetings of both the SCC and the CSAB would be useful to address the outstanding issues that were noted in the "Small Group" meetings.

Inconsistencies with SCC input

In general, the facilitator's Phase 2 Report was well thought out and provided a very useful overview of the CSAF review process undertaken by DFO with the CSAB and the SCC in 2013-14. However, there are a few areas where she may have recorded ideas that are inconsistent with those put forth by the SCC. For instance:

- ***Satisfaction with engagement*:** In the Executive Summary, the report says, "the overall engagement approach has been robust and transparent and has provided for fulsome and thoughtful participation". While this isn't untrue, many Nations spoke of a lack of capacity to fully participate in the discussions. This is in part due to the complexity of the Framework and to the fact that they weren't able to fully engage with their communities during Phases 1 and 2. The SCC also recommended to DFO that it undertake direct bi-lateral consultations with First Nations in its process to update the Commercial Salmon Allocation Framework. While the process increased understanding considerably, participants at meetings often noted that more engagement with communities and fishers throughout the process would have been helpful. Because of the timing of the process, many groups could not fully engage with the groups that they work for (i.e., Lower Fraser First Nations).
- ***Division of the TAC amongst harvesters:*** In the Executive summary, the report notes that an area of consistency between the CSAB and the SCC is that *"Harvest shares associated with each licence in a fleet has an equal share or percentage of the commercial TAC or harvest based on the total number of licences that are eligible in that specific licence category*". The report further describes this to note that *"Harvest shares associated with commercial licenses for the transfer or relinquishment should be based on the principle that each license in a fleet has an equal share or % of the commercial TAC or harvest based on the total number of licenses that are eligible in that specific license category"*. Although many groups agreed with this, there was not consensus, even within the SCC. This was actually an area of divergence that would benefit from further discussions and modeling of implications using real world examples.
- ***Problems with the S/E analysis:*** The report notes that *"in general, the participants thought that the S/E analysis was important and most regarded this as a key feature of the initiative to update the framework".* However, the report accurately describes the SCC issues with the initial S/E analysis as follows: 1) the characterization of the change approaches were too simplistic or inaccurately described by the proposals, 2) the selection of the objectives and indicators favoured economic over social values and this biased the results, 3) some assumptions used in the analysis (e.g. price increases) were inappropriate.

  The report missed two other points that were made by the SCC:

  1. The assumptions are flawed partly because even after months of discussions, there is still a lack of understanding about how fisheries are managed in some areas
  2. The studies available for this analysis were incomplete and not necessarily representative of the diversity of First Nations' economic opportunity (EO) or demonstration fisheries and this potentially skews results.

The Final Socio-economic Analysis, initially supported for its potential to evaluate differences between the various proposals for change, did not address the serious concerns raised by both the SCC and CSAB after their reviews of the preliminary SE analyses:

- The characterizations of the 'Change Approaches' were too simplistic and in some cases inaccurately described – Change Approach 3 should not be defined as the SCC's proposal as it does not accurately reflect the current state of the SCC proposal.
- The assumptions used to define the Base Case scenario reflect a continued lack of understanding about how First Nations fisheries are managed, and the current diversity amongst First Nations fisheries.
    - As many First Nations fisheries are new and knowledge and information on these fisheries are highly localized, available catch data is sparse as compared to other commercial fisheries.
    - This combination of factors creates biases in the SE analysis, which relies heavily on catch data for economic valuation.
- The SE analysis did not consider many aspects that the SCC indicated as important in its proposal. Specifically, the SE analysis lacked a consideration of social indicators, therefore severely biasing the SE analysis against First Nations interests and values.
    - Intrinsic and intangible values are highly important from a First Nations perspective; not including social aspects undermines the utility of this SE analysis.
    - Additionally, the negative impact of DFO licence buy-backs on First Nations was not reflected in the SE analysis.
- The SCC and the CSAB made a strong case for flexibility in the types of fisheries that could be implemented in the future for all fishing groups to harvest their respective shares of the commercial TAC. The SE analysis was not able to assess the substantial benefits to fishers that could be realized through this increased flexibility in fishery operations and the potential improvements to stock assessment and fisheries management that have been demonstrated through several First Nations fisheries (e.g. Nisga'a Fisheries, Nuu-chah-nulth Fisheries).
- The SE analysis did not identify any economic benefit resulting from the recommendation to move away from the annual approach based on sockeye equivalents or the benefits of greater certainty that would result from defining harvest shares at the fishery production area or species level for each fleet and First Nation.

The failure of the final SE analysis to address any of the significant issues raised by both the SCC and CSAB make the SE analysis and accompanying results uninformative and misleading. Potential conclusions drawn from the SE analysis are very limited and not useful in the evaluation of the SCC proposal. The SCC was not informed as to why the requested changes, as a result of the SCC's significant concerns, were not made to the final SE analysis.

- ***The value of the small group:*** The report notes that in general the SCC and CSAB liked working together in the small group. Although it did provide tremendous benefits to the process, she may be overemphasizing the success of those small group meetings. The small group meetings worked well because there was thorough discussions at the SCC and CSAB tables and because the groups saw a value in working together to discuss differences and commonalities. But an outsider reading the report may be led to believe that the small group gets as much done as the SCC and CSAB do separately, and at a fraction of the cost. One issue is that the discussions at the small group table focused on topics that the full SCC and CSAB tables did not completely endorse, or on examples that were not fully explained to SCC members prior to small group meetings. These disagreements or areas of inconsistent understanding were never dealt with within the timeframe and may come up down the road because they were never addressed. There is a role for small group meetings, but many groups only feel free to speak openly within their individual SCC and CSAB processes. The report emphasises the value of the small group throughout the report, so it may be worth bounding the value.

Missing Information

- When describing the context for conducting a CSAF review (pg 6-7), the report describes the needs as arising from climate change and other environmental factors contributing to uncertainty of returns, the fiscal climate overseeing management costs, changing markets and First Nations seeking flexibility to access commercial harvest opportunities. However, the report fails to mention that the rules that allow for First Nations' economic fisheries are at times unclear even to DFO and this has therefore led to opportunities that can be seen as unfair or unequal by some groups. The Lower Fraser EO fisheries are one example where opportunities are frustratingly complex, due in part to combinations of historic, Pacific Salmon Treaty and modern allocations which are tied to First Nations' section 35(1) fishing rights.
- The socio-economic analysis was meant to analyze proposals put forth by the CSAB and the SCC. However, because the CSAB put forth so many proposals, Fraser and Associates did not analyze the proposals in their entirety and instead analyzed them according to three key headings: 1) the scale of the allocation (geographic or biologic), 2) the method of distributing the allocation and to whom, and 3) the issues of transferability. This simplistic analysis left out many components important to First Nations representatives who took part in the discussions at the SCC level. This is clear in Appendix G where one can read through the submissions, but is not necessarily clear in the Phase 2 report.

Areas of Disagreement

- The Phase 2 report states that First Nations are speaking with their communities about the CSAF process during the summer of 2014. This did not occur in many areas.
- On page 12 the report notes the points of common interests between the CSAB and the SCC that were identified at the small group meetings. The 4th area of commonality was not agreed to by all SCC participants.

Recommendations to DFO

- The report notes that "if" an extension of the process occurs, it should focus on collaboration with the CSAB to look at Change Approach 2 and 3. It should be reiterated by the Nations that an extension is vital to the success of the initiative. A lot of progress was made but many

members of the SCC did not feel that the process was complete at the end of the fiscal year and would be unlikely to support implementation by 2015.

- The report recommends that work in the fall of 2014 should focus on how Change Approaches 2 and 3 could be made more acceptable factoring in the initial work of the small group. The SCC should consider this and decide if more detailed explanations of the examples should also be undertaken in order for all participants to understand the implications of changes.

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October 3, 2014

Sue Farlinger
Regional Director General, Pacific Region
Fisheries and Oceans Canada
Suite 200 - 401 Burrard Street
Vancouver BC V6C 3S4

Dear Sue Farlinger

Re: First Nations Salmon Coordinating Committee Overview and Recommendations on the DFO process to update the Commercial Salmon Allocation Framework

The First Nations Fisheries Council (FNFC) and the Salmon Coordinating Committee (SCC) write to you to highlight significant and ongoing concerns with the Commercial Salmon Allocation Framework (CSAF) review process. The issues outlined below include a summary of the SCC's concerns with First Nations consultation and accommodation, the socio-economic analysis and the division of Total Allowable Catch (TAC) among harvesters. The SCC has provided a list of recommendations to the Department of Fisheries and Oceans Canada (DFO) as next steps in the process.

Role of the Salmon Coordinating Committee

The Salmon Coordinating Committee is a coordinating body consisting of 14-members from First Nations communities and/or fisheries organizations from diverse geographic regions of the province. SCC members work together to identify and address issues of common interest to First Nations with respect to salmon management. Thus, the SCC is not a mandated decision-making body. The SCC is not a holder of Aboriginal Rights as defined in s. 35(1) of the *Constitution Act* (1982). As such, the Crown's legal duty to consult with First Nations regarding the process to update the CSAF remains on a bilateral basis between Fisheries and Oceans Canada and individual First Nations.

While the SCC has had valuable and engaging Tier 1 and Tier 2 discussions on the CSAF, the SCC proposal should not be characterized as a representative or comprehensive proposal of all BC First Nations. The SCC members each have to communicate back to their respective communities, organizations and leadership through various communication protocols that require time and resources. Significant differences relating to the capacities and existing processes in each region affect the amount of time and resources each SCC member requires to fully engage with the respective communities in their regions.

Bi-lateral Consultation and Accommodation of First Nations

The DFO consultation and accommodation approach for CSAF has been cursory and insufficient, given the depth of engagement required for a complex topic with important implications for First Nations

participation in commercial salmon fisheries. Full engagement with First Nation communities – members, fishers, Chiefs and Councils – has not yet been achieved due to several factors:

- DFO has focused its communication and engagement on the SCC and has initiated very little direct consultation with BC First Nation communities;
- The preliminary and evolving nature of the CSAF change proposals over the past several months;
- The multifaceted nature of the CSAF topic, how it could apply in various areas and its potential significant implications on First Nations access to economic fisheries; and
- Insufficient resourcing for adequate communication between SCC members and First Nation communities in their respective regions.

The SCC has recommended that DFO develop a comprehensive consultation plan to engage effectively with BC First Nations on this process and policy. The CSAF is a DFO management and policy guidance tool and as such, DFO is responsible for conducting meaningful bi-lateral consultations on its policies and management actions. Additionally, some First Nations have indicated difficulties in scheduling meetings with DFO staff when seeking more information about the CSAF review and the implications of proposed changes. Very few DFO staff understand the CSAF process and draft framework, further limiting the ability of DFO to consult with First Nations on the CSAF process.

Those SCC delegates that have had the opportunity to have DFO staff attend regional meetings are still experiencing numerous challenges communicating CSAF to regional First Nations fisheries organizations, political leadership and community members due to the complexity of the topic and the long-term implications for First Nations. The SCC is deeply skeptical that the proposed DFO budget for this work is adequate for regional and community-based discussion that would allow First Nations to make informed decisions at the appropriate scale of authority. Although the SCC is encouraged by the extension of the DFO timeline, the extended timeframe remains inadequate for DFO to engage with First Nations political leadership and community members.

Given these outstanding issues with First Nations consultation and accommodation, the SCC does not agree with the description of the overall engagement approach in the draft CSAF Phase 2 facilitator's report as "robust and transparent and has provided for fulsome and thoughtful participation".

Tier 1 Communication and Dialogue

The work of the SCC is constrained by the lack of adequate resourcing, which is insufficient for the amount of Tier 1 engagement required. SCC representatives are experiencing challenges communicating on this topic to community members and leadership due to the complexity of the topic and its significant implications to First Nations economic access. In addition to the consultation issues highlighted above, SCC members were unable to speak with their respective organizations or communities about the CSAF process during the summer of 2014 due to the commencement of localized salmon harvest activities during the summer. Despite numerous strong recommendations made by the SCC to be adequately supported to engage in Tier 1 dialogue with First Nations on the SCC's proposal to the CSAF, DFO has not been able to provide the requested resources to implement an SCC Tier 1 communication and engagement plan.

Dialogue with the Commercial Salmon Advisory Board

Although the small group of representatives from the SCC and the Commercial Salmon Advisory Board (CSAB) had useful discussions about the differences and commonalities in proposed approaches for an updated CSAF, many issues were not discussed, or if discussed, not resolved at these meetings. Additionally, the role of the small group was to present information on the SCC proposal, and not for negotiation with the CSAB representatives. Discussions at the small group table focused on topics that the larger SCC and CSAB tables did not completely endorse, resulting in disagreements that could not be dealt with at small group meetings.

Socio-economic Analysis

The Final Socio-economic analysis conducted by Fraser and Associates, initially supported for its potential to evaluate differences between the various proposals for change, however it did not address the serious concerns raised by both the SCC and CSAB after their reviews of the preliminary SE analyses:

- The characterizations of the 'Change Approaches' were too simplistic and in some cases inaccurately described.
- "Change Approach 3" should not be defined as the SCC's proposal as it does not accurately reflect the current state of the SCC proposal.
- The assumptions used to define the Base Case scenario reflect a continued lack of understanding about how First Nations fisheries are managed, and the current diversity amongst First Nations fisheries.
- The SE analysis did not consider many aspects that the SCC indicated as important in its proposal. Specifically, the SE analysis lacked a consideration of social indicators, therefore severely biasing the SE analysis against First Nations interests and values, nor did it reflect the negative impact of DFO licence buy-backs on First Nations.
- The SCC and the CSAB made a strong case for flexibility in the types of fisheries that could be implemented in the future for all fishing groups to harvest their respective shares of the commercial TAC. The SE analysis was not able to assess the substantial benefits to fishers that could be realized through this increased flexibility in fishery operations and the potential improvements to stock assessment and fisheries management that have been demonstrated through several First Nations fisheries (e.g. *Nisga'a* Fisheries, *Nuu-chah-nulth* Fisheries).
- The SE analysis did not identify any economic benefit resulting from the recommendation to move away from the annual approach based on sockeye equivalents or the impacts that would result from defining harvest shares at the fishery production area or species level for each fleet and First Nation.

The failure of the final SE analysis to address any of the significant issues raised by both the SCC and CSAB make the SE analysis and accompanying results uninformative and misleading. Potential conclusions drawn from the SE analysis are very limited and not useful in the evaluation of the SCC proposal. The SCC was not informed as to why the requested changes, as a result of the SCC's significant concerns, were not made to the final SE analysis.

Division of TAC amongst harvesters

While SCC delegates broadly support the establishment of a "First Nations" commercial allocation (harvest share), not all SCC representatives agree that the initial First Nations share should be

determined based on an equal division of all eligible commercial licence holders in a specific licence category. There is currently a lack of consensus within the SCC about how the First Nations initial harvest share should be determined as the method in which the TAC is divided can vary between production areas, and thus have different outcomes for marine and inland First Nations fisheries. This is a substantive issue within the SCC and requires more Tier 1 discussion and resolution in 2014/15.

Recommendations to DFO

- The Phase 2 Report must not be finalized in its current form. The substantive issues raised by the SCC and CSAB regarding the SE analysis must be more accurately and completely acknowledged in the Phase 2 Report.
- Further consultation is required with First Nations. Full engagement of First Nations communities has not been achieved due to inadequate resourcing and support to the SCC and lack of capacity within DFO. Legally, Canada represented by DFO is responsible for bilateral consultations with First Nations.
- The SCC requires an extension to continue working on priority issues within the SCC (e.g., the issue of initial determination of First Nation shares) due to the diversity of implications on Nations.
- As previously stated to DFO, the CSAF process is only a partial step toward solving allocation issues in BC, given that the recreational sector is not included. Many of the challenges arise from the limitations and infringements of First Nation's rights due to an outdated allocation policy. Until all aspects of inter-sectoral allocations are addressed, revising the CSAF will only deal with partial solutions.
- One of the objectives to review the CSAF is to establish a mechanism for flexibility, and to increase shares in the future. Thus, arrangements should be made to allow the evaluation of potential CSAF changes in a few years, such as through a 5-year review process.

In addition to some of the issues raised and recommendations provided in this letter, the Salmon Coordinating Committee also reviewed the facilitator's Phase2 Report on updating the Commercial Salmon Allocation Framework, and have provided additional comments in the attached document. The Salmon Coordinating Committee looks forward to working with the Department throughout the fall and winter to discuss proposed approaches to updating the Commercial Salmon Allocation Framework.

Sincerely,

Jordan Point
First Nations Fisheries Council

CC: Salmon Coordinating Committee

Enclosures: Salmon Coordinating Committee review of the "Updating the Commercial Salmon Allocation Framework [:] Phase 2 Report"

SKEENA FISHERIES COMMISSION

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Susan Farlinger
Regional Director General
Fisheries and Oceans Canada - Pacific Region
200 – 401 Burrard St.
Vancouver, BC V6C 3S4

Via email only to Susan.Farlinger@dfo-mpo.gc.ca

Dear Ms. Farlinger

Re: Commercial Salmon Allocation Framework (CSAF) Discussions

Thank you for your letter dated September 18, 2014 where you acknowledge our participation and efforts to help DFO develop a modern CSAF that better respects our rights to access salmon for commercial purposes and addresses some of the long outstanding deficiencies with the current framework.

The Gitanyow, Gitksan, Wetsuwet'en and the Lake Babine Nation have taken part in this review through their representative(s) at the Salmon Coordinating Committee (SCC). However, it should be made clear that these representatives are not mandated in any way to make decisions on behalf of any individual Nation. Changes to the CSAF that may impact current FN economic fisheries must take place through bilateral consultations at the Nation level. Our representatives took part in SCC-CSAF discussion only to facilitate dialogue, act as a medium to disseminate information and to help develop proposal ideas that could make commercial fisheries more viable for FN's and improve salmon management in BC. This point was made clear to your department by our representatives all through the SCC-CSAF discussions, a point that should not be lost.

In your letter you indicated that there appears to be broad support among SCC participants that key elements of a new CSAF should include: *fixing shares at the fishery production area level, maintaining shares for an indeterminate period (longterm stability), discontinue the use of sockeye equivalents and greater flexibility to make fishery plans*. Although in principle we

support the last three of these elements, it should be made clear that the Nations we represent do not support the first element as it stands. This is because the Skeena / Nass production areas are too broadly defined and only those interests who own or control commercial Licences would be awarded stable, economically viable, access. So, if in any way, shape or form the new CSAF results in the reduction of our recent in-river FN commercial allocations, or limits our ability to work within a revised CSAF to increase our access; it cannot not be supported by our Nations.

That said, we believe there has been some good work and progress made at the SCC-CSAF table to develop a FN proposal, but more discussion and agreement is required before we will agree to begin discussing implementation. Among the more concerning issues that may impact our decision to support a revised CSAF may include:

1. A revised CSAF is described by its proponents as a way to formalize the long-term allocation of salmon "shares" between all-citizen marine and FN's commercial fisheries. We believe this is incorrect. The process will lead to the long-term allocation of commercial fishing licences between the two entities. This may benefit those who own or control commercial fishing licences but it will significantly disadvantage those FN's who do not own or control commercial fishing licences, which is the case for most Skeena / Nass FN's.

2. The Commercial Salmon Advisory Board (CSAB) has a long established internal allocation framework that guides allocations between the 8 Area/Gear Associations. Each Area/Gear group, and the CSAB as a whole, can evaluate in a transparent manner the potential economic and social impacts of a revised CSAF on its constituents. FN's do not have an equivalent way to transparently evaluate the likely social and economic consequences of a revised CSAF on their commercial fisheries and communities. There is therefore no way for them to analyze the potential impacts and to employ the results of such analyses in consultations with their communities. This same point was made when SCC members provided comments on the Fraser and Associates S/E analysis. Where the fundamental social value of having FN's involved in fishing was lost because for the most part it focused on the economics and related matters of fisheries when that is not the most important aspect of fisheries for FN's in many cases. This point was emphasized during the S/E analysis review, but very few SCC recommendations were adopted in the final analysis.

3. The one method that may have buffered the impact of the proposed "First Nations proposal" on in-river FN's that do not own or control licences is to move away from the

current allocation scheme whereby DFO allocates salmon associated with inactive licences to marine fisheries. DFO and FN's participants in the "small group discussions" swept this option off the table without consulting with in-river FN's who are extremely disadvantaged by this situation. They have chosen to perpetuate an allocation framework, which allocates in-river FN's significantly less salmon than is allocated to similar marine licence owners (e.g. Skeena / Nass Area C in-river fisheries receive 1/3 the allocation as in the marine). This point was made extremely clear on numerous occasions through SCC-CSAF discussions, but it would appear that because no in-river FN representatives were appointed to the "small group discussions" the point was lost. DFO appears to be moving towards relying more on "small group discussions" between the CSAB and select FN representatives. This is unacceptable. All FN's who may be impacted by such discussions must have a seat at the table to ensure their interests are heard and considered.

4. Any independent analysis of the impacts of the current FN's proposal would have to conclude that it will disadvantage upriver FN's on the Skeena / Nass. This is because it would reduce the number of commercial licences available to us and remove the only current method by which to acquire additional licences in a cost-effective manner. The objective of the proposed CSAF is to allow those who currently own or control commercial licences to maximize their value. This will reduce the supply of licences available to our fisheries. We invested in our fisheries under the current CSAF policy. Moving to a new CSAF without adequate consultation or compensation may leave the Department in legal jeopardy.

5. DFO has compounded in-river FN fishery difficulties in recent years by imposing a calculation that reduces the proportion of target species allocated to upriver FN's because of management challenges, while not recognizing any of the conservation benefits of selective / terminal fisheries. This policy effectively penalizes more sustainably based fisheries and promotes FN's to fish with less regard for conservation so that their fisheries can compete with Marine fisheries and achieve higher economic gains by increasing catch.

6. All FN's involved in CSAF discussions agreed that the CSAF discussions could not replace DFO's obligation to engage in bilateral consultations with affected First Nations. Further, it was agreed that such consultations must occur before this fall. And that such consultations had to include an analysis of the potential advantages and disadvantages (winners and losers) of the current First Nations proposal on the affected communities. This has not occurred in the Skeena / Nass. It is inappropriate for DFO to move forward

with a process that could have negative impacts on First Nations without adequate consultations.

We engaged in this SCC-CSAF process in the last year in the hopes that the outcome of this process would result in stable, long-term access to salmon for commercial purposes for our people. In addition, it was hoped that by engaging DFO in these discussions the department would further recognize the real value and benefits that in-river FN fisheries provide (selective, terminal, social benefits) to British Columbia salmon fisheries and recognize the need to expand them for the long-term benefit of the resource and FN people.

Until the above issues are dealt with in a manner that is acceptable to the undersigned we withdraw our support for the current SCC - First Nations' proposal. Furthermore, we want to make it extremely clear that each of our nations expect bilateral consultation before any changes are made to the current CSAF. That said, we acknowledge that many of the common technical implications of a revised framework could be discussed at technical forum such as the SFC technical committee.

Yours truly,

Stu Barnes
Chairperson

Cc Pam Cooley (pmcooley@pamcooley.ca)

Paul Sprout (psprout@uniserve.com)

Deanna Machin (deana@fnfisheriescouncil.ca)

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October 3, 2014

Sue Farlinger
Regional Director General, Pacific Region
Department of Fisheries and Oceans
Suite 200 - 401 Burrard Street
Vancouver BC V6C 3S4

Dear Ms. Farlinger:

Re: North Coast-Skeena First Nations Stewardship Society Comments and Concerns related to the Draft Phase 2 Report on the DFO process to update the Commercial Salmon Allocation Framework

Thank you for the opportunity to provide our comments and concerns regarding the Draft Phase 2 Report for the Commercial Salmon Allocation Framework (CSAF) review process prepared by Pam Cooley. Representatives from the North Coast-Skeena First Nations Stewardship Society (NCSFNSS) have attended almost every meeting where the Salmon Coordination Committee (SCC) members have discussed proposed changes to the CSAF with the Department of Fisheries and Oceans (DFO) and the Commercial Salmon Advisory Board (CSAB). Our representatives have made substantial contributions to the CSAF review process by working with other members of the SCC to develop a clear and comprehensive proposal for changes that will benefit the entire commercial salmon fishery and provide First Nations with the opportunities they seek to develop and manage their own commercial salmon fisheries.

At considerable expense, the NCSFNSS hired a professional fisheries scientist, with over 30 years of experience working on salmon fisheries management issues, to find solutions that would work for NCSFNSS member communities and other First Nation communities in both coastal and inland areas. This individual has attended most of the CSAF meetings and conducted extensive work before and after those meetings to address the numerous questions and issues raised by participants. Consequently, we are in a position to provide very specific comments on the Draft Phase 2 Report and the Socio-Economic (S/E) analyses included as an appendix to this report. These comments and requested changes are provided in the attached document.

All of our comments are provided to ensure the report more accurately reflects the issues and concerns related to the S/E analysis conducted by Sandy Fraser. The NCSFNSS respectively requests Pam Cooley make all the proposed changes to the Phase 2 Report. If any of the proposed changes are not made or altered, we request that Pam Cooley provide the rationale for ignoring or modifying any of our proposed changes. As indicated in the attached document, NCSFNSS concerns related to the report and S/E analysis are serious and must not be relegated to yet another appendix that will not be read. NCSFNSS concerns are similar to those expressed by other members of the SCC that attended the SCC meeting on September 25 2014, and in some cases our concerns are similar to concerns expressed by the CSAB. Therefore, NCSFNSS and other SCC concerns must be addressed in the main body of the Phase 2 Report.

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The NCSFNSS is prepared to continue to work with the SCC, DFO and CSAB to identify the types of changes to the CSAF that will make commercial salmon fisheries more viable and benefit all participants in the commercial salmon fishery. In order to do this, we need to be confident that our ideas and issues will be addressed seriously and respectfully by DFO and any individuals contracted by DFO to facilitate this process or conduct analysis related to this process.

Sincerely,

Robert Grodecki
Executive Director

Attachment

cc Jordon Point, Executive Director, FNFC
Jeff Grout, Resource Manager, Salmon, DFO
Pam Cooley, Facilitator
Karl English, Fisheries Advisor, NCSFNSS
SCC Members

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Comments on Pam Cooley's Phase 2 Report and Associate Appendices

Prepared by Karl K. English

on behalf of

North Coast-Skeena First Nations Stewardship Society

October 2nd, 2014

This document provides a summary of the major concerns regarding several statements in Pam Cooley's Phase 2 Report and the majority of the analyses presented in Appendix C entitled "The Socio-Economic Implications of Suggested Approaches for Updating the Commercial Salmon Allocation Framework".

In June 2014, a sub-group of SCC members (Karl English, Don Hall, Larry Greba, Russ Jones and Marcel Shepert) provided specific comments on a preliminary draft of the Socio-Economic (S/E) report dated 23 May 2014**. It was very disappointing to see that most of the deficiencies identified in the draft report were not addressed despite significant efforts to describe how they could be readily addressed by modifying a few of the basic assumptions and definitions of proposed changes to the CSAF.** No explanation was provided in the Phase 2 Report or the S/E Report for why the SCC suggestions and substantive concerns were not addressed. Consequently, the NCSFNSS and most members of the SCC have concluded that the findings presented in the S/E Report are very limited and not useful in evaluating the SCC proposal for changes to the CSAF. The assumptions associated with the "Base Case" regarding First Nation (FN) fisheries do not reflect the recent average number of licences available for FN fisheries or used by FN fishers. Given the importance of potential changes to FN fisheries under any new CSAF, it is critical to get the Base Case correct for FN fisheries. Change Approach 3 (CH3) was initially proposed to represent an approach similar to that proposed by the SCC. However, CH3 is not consistent with the balanced and flexible approach described in the SCC proposal. The SCC proposal would result in FN's fishing all the allocations associated with both F and N licences. The increased utilization of these licences would result in increases in FN harvest in both marine and freshwater fisheries. CH3 analysed in the S/E Report only resulted in increased harvest in FN freshwater fisheries.

Specific Changes required to Pam Cooley's Phase 2 Report

For each of the following pages and sections, the edits are provided in blue bold font. All of these edits are necessary to ensure that the serious concerns regarding the results from the S/E analysis presented in Appendix C are clearly noted and acknowledged in the Phase 2 Report.

Page 11 – Change Approach 3 – Middle Ground 2 - This approach was intended to reflect several of the elements in the FN SCC proposal. **However, despite considerable efforts to clearly define the SCC proposal, the S/E analysis does not reflect the SCC proposal. Instead, the S/E analysis only reflects an increase in the number of fish transferred from marine fisheries to FN freshwater fisheries. A Change Approach where only FN freshwater fisheries would have an increase share of the salmon harvest is not supported by the SCC.**

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Page 13 – 7.1 The Socio-Economic Analysis approach - The SCC, CSAB and DFO all **initially** described the socio-economic analysis and its approach as a **potentially** useful framework or tool to inform discussions on potential changes to the commercial allocation framework. **However, most members of the SCC have concluded that the S/E analysis as presented in Appendix C is neither informative nor useful for evaluating proposed changes to CSAF.**

Page 14 - Notwithstanding the merits of S/E **analyses**, there were a number of serious concerns with aspects of the **S/E analysis presented in Appendix C** and its limitations, particularly related to the **assumptions used to define the Base Case and Change Approaches 3 and 4. There are also concerns related to** lack of data with which to effectively analyze some changes and differences in how individuals or groups might value certain objectives over others.

Page 14 – 7.2 Responses to the Characterization of the options for change – (Third bullet) First Nations noted that Change Approach 3 (containing elements of the SCC proposal) did not ~~adequately~~ capture the broad ideas for change noted in the current SCC proposal. **A Change Approach where only active licences are used to estimate allocations and only increase the harvest share for FN freshwater fisheries is not supported by the NCSFNSS. An approach where only active licences are used to define harvest shares would devalue the inactive F licences in the DFO inventory and the inactive N licences in the NNFC inventory.**

Page 14 - The SCC-CSAB small group discussion confirmed that the SCC change proposal was based on the understanding that each commercial licence had an equal share of the commercial TAC (or harvest) based on the total number of eligible licences in that licence category. It was observed that the considerable clarification of the SCC proposal and, to a lesser extent, the Evergreen proposals during the regular meetings was not reflected in the socio-economic analysis. However, it was also acknowledged that this work occurred after the Change Approaches for the S/E analysis had ~~already~~ been **defined** ~~confirmed~~ by the consultant **and requests for changes were ignored.**

Page 15 – 7.3 Perspectives on the assumptions and indicators (add new bullet) – **The SCC provided specific comments on the deficiencies in the assumptions used in the initial S/E analysis and provided solutions to each of these deficiencies (see SCC comments dated 11 June 2014). However, none of the key deficiencies in the S/E analysis were addressed in the Final Report for the S/E analysis. The only changes incorporated into the S/E Final Report were corrections to obvious errors in a few of the harvest statistics for coho and chum.**

Page 15 – Views on the preliminary analysis and its results – The first two bullets should be deleted since the S/E analysis did not identify any economic benefit resulting from the recommendation to move away from an annual approach based on sockeye equivalents or the benefits of greater certainty that would result from defining harvest shares at the fishery production area/species level for each fleet and First Nations. The following two new bullets should be added:

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- **The failure of the S/E analysis to address any of the significant issues raised by the SCC and CSAB make these preliminary analysis and results uninformative regarding the SCC proposal for change to the CSAF.**
- **The SCC and CSAB made a strong case for flexibility in the types of fisheries that could be implemented in the future for all fishing groups (A-H licence holders and First Nation communities) to harvest their respective shares of the commercial TAC. The S/E analysis was not able to assess the substantial benefits to fishers that could be realized through this increased flexibility in fishery operations and the potential improvements to stock assessment and fisheries management that have been demonstrated through several First Nation fisheries (e.g. Nisga'a Fisheries, Nuu-chah-nulth Fisheries).**

Page 16 - Change Approaches 2 and 3 (the middle ground proposals) received the most attention by both the SCC and CSAB participants likely reflecting the fact that these had the greatest overlap with several of the original CSAB proposals and the First Nation SCC proposal and therefore were seen by many as more credible. **However, Change Approach 3 did not reflect the balanced approach proposed by the SCC where First Nation harvest shares would increase in both marine and freshwater fisheries and thus the S/E results do not provide an assessment of the relative performance of SCC proposal which would provide more allocation stability and opportunities for co-management arrangements than any of the Change Approaches analysed.** ~~In general the participants thought that the S/E results might have underestimated performance in some areas. For example, the SCC thought that Change Approach 3 would provide more allocation stability, and that co-management arrangements among commercial fishery participants would be strengthened both of which were judged to be neutral or negative in the S/E analysis.~~

Page 19 – 9.2 Observations from the socio-economic analysis

The S/E analysis, although **initially supported for its potential for evaluating differences between the various proposals for change**, ~~generally seen as an important contributor to the overall initiative by the participants,~~ **has not addressed the serious concerns raised by the SCC and CSAB after their reviews of the preliminary S/E analyses.** ~~made any useful contribution to resulted in a consensus for change.~~ **These serious concerns related to the definitions of the Change Approaches analysed and the assumptions used to define the Base Case and three of the four Change Approaches.** ~~Questions on the descriptions of the Change Approaches, the type of indicators used and their relative importance and the assumptions applied in the analysis have been raised; opinion on these matters diverged within and between the groups. This was due in part to the fact that the Change Approaches were broad representations of potential changes and did not exactly reflect specific proposals that were made.~~

Due to these serious concerns raised by both the SCC and CSAB, the conclusions that can be drawn from the S/E analysis presented in Appendix C are very limited and not useful in the evaluation of the SCC proposal. ~~In spite of the issues and questions on the analysis, some conclusions can be drawn from the results of the four change approaches.~~

APPENDIX H

LETTER FROM CSAB TO DFO

CSAB Advice to DFO on Commercial Allocation Modernization: May 29, 2014

After meeting on May 29, 2014, the CSAB Allocation Working Group agreed on the following advice to DFO:

As the current process concludes, CSAB wishes to recognize the significant progress that has been achieved, in terms of improved understanding and convergence of views, both among CSAB members and in the small group meetings that involved CSAB, DFO and SCC representatives. The discussions have helped to bring CSAB members together, with a focus on the "Evergreen" proposal as a basis for moving forward to resolve some of the key issues in redefining the commercial allocation framework. The CSAB also recognizes the invaluable opportunity in being able to work collaboratively to develop a common understanding that will help to shape emerging First Nations commercial fisheries and contribute to the success of those efforts.

Notwithstanding this significant progress, the CSAB notes that PST Mitigation Funds were to be used to modernize the commercial allocation process and meet CSAB objectives for modernization. In CSAB's view, those objectives have not been fully achieved to date, as the structure/direction of the current process did not provide sufficient opportunity to complete the in-depth discussion required to resolve priority CSAB issues.

The CSAB therefore proposes that with a limited amount of further discussion time, CSAB can easily reach agreement and provide advice on resolving several outstanding priority issues, including:

1. Refine the Evergreen proposal and develop details of this allocation plan.
2. Decide on a fixed initial term for the Evergreen plan (review to follow the initial term).
3. Troll mitigation buy-down and effects on allocation.
4. Area re-reselection (permitted or not).

Further discussion will also provide more clarity and direction on how to deal with more challenging fishery management issues, including ITQs and/or partial fleet ITQs, even if fundamental differences among CSAB members with regard to ITQs are unlikely to be fully resolved.

Once CSAB has been able to discuss and resolve the above priority issues, we propose further CSAB meetings to discuss appropriate rules and management for First Nations commercial fisheries, as those relate to the future viability of commercial fisheries. CSAB will be able to contribute more effectively to further discussions with DFO and SCC once it has developed its own coherent internal approach on key issues, including:

- The need for appropriate definition and allocations for ESSR fisheries.
- First Nations commercial fishery rules for all fisheries in common areas (flexibility/fairness issues).
- Temporary leasing of licence shares (e.g. Area C issues)
- Tracking of allocation/transfers
- Monitoring, compliance and traceability.
- Cap on transfers from existing marine commercial fisheries, fleet size & viability.

If time permits, and once CSAB priority issues are tackled, CSAB also welcomes discussion of additional topics that DFO may propose.

Process:

CSAB will require appropriate funding and support to accomplish these objectives and we propose that Mitigation funds be allocated to fund a contract for an advisor/facilitator with appropriate technical experience, as selected by CSAB, to help with this work.

CSAB Advice to DFO on Commercial Allocation Modernization: May 29, 2014

We propose 6 days of meetings in fall 2014, with the initial 3 days allocated for CSAB meetings with the advisor/facilitator to resolve the CSAB priority issues identified above.

Once CSAB's priority issues are resolved, the remaining meeting days can be used to discuss the above issues relating to integration of First Nations and marine commercial fisheries.

Once CSAB has had the opportunity to resolve these issues internally, we will be able to contribute more effectively in a continuation of small group CSAB/SCC meetings.

CSAB also proposes to consult with constituents on these issues over the summer.

The intent would be to wrap up and provide final advice to DFO in time to implement changes in the 2015 fishery season.