



PACIFIC SALMON COMMISSION

ESTABLISHED BY TREATY BETWEEN CANADA
AND THE UNITED STATES OF AMERICA
MARCH 18, 1985

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Meeting Summary Record Pacific Salmon Commission Fall Session October 2012

The Pacific Salmon Commission met October 16-17, 2012 in Vancouver, British Columbia at the Commission offices. There were 32 attendees in total from both national sections (see attached attendance list) in addition to Secretariat staff members. No members of the public attended.

The Commission AGREED:

1. The minutes from the January and April 2012 Commission meetings are approved with edits provided by each national section.
2. The minutes from the February 2012 Commission meeting are to be clarified in specific sections and resubmitted for approval at the January 2013 PSC Post-Season Meeting.
3. In the future, a cover page will be provided for each set of minutes that summarizes decisions and recommendations with the same text highlighted in bold in the minutes.
4. Secretariat staff will collect outstanding material needed to finish incomplete PSC Annual Reports, working on oldest reports first and setting firm deadlines for submissions. If deadlines are missed, then the affected report(s) should be published in incomplete form with appropriate notation.
5. Secretariat staff will draft a short policy guidance document that summarizes the evolution and major issues in the PSC hydroacoustics program, and submit it to a bilateral set of reviewers (reviewers to be confirmed by each Section).
6. The Canadian section will draft Terms of Reference for a small group of Commissioners, and advisors as appropriate, to consider the policy guidance document mentioned above and report to the Commission on its findings.
7. The Performance Review Implementation Group (PRIG) will revise its questionnaire for subsidiary bodies as edited on October 17 and use it as appropriate without further approval from the PSC.
8. The instructions for the Fraser River Panel to negotiate a new Annex IV, Chapter 4 are approved as edited on October 17 (see attachment).
9. All workplans are approved as submitted with the following exceptions:

- a. Southern Panel: There are a number of issues identified in the workplan appendices that the Commission is not prepared to endorse, recognizing that national sections will address those as appropriate.
 - b. Joint Technical Committee on Habitat and Restoration: The workplan will be revisited at the January 2013 PSC Post-Season Meeting in a discussion with Committee co-chairs.
10. Instructions to Panels and Committees for future workplans should emphasize planning and caution against reporting of results to improve plan conciseness and utility.

ATTENDANCE
PACIFIC SALMON COMMISSION MEETING
OCTOBER 16-17, 2012
VANCOUVER, B.C.; PSC OFFICES

COMMISSIONERS

UNITED STATES

P. Anderson (Chair)
R. Allen
J. Bacon
D. Bedford
R. Elicker
M. Oatman
L. Rutter

CANADA

S. Farlinger (Vice-Chair)
R. Jones
P. Macgillivray
R. Rezansoff
B. Riddell
P. Sprout

ADVISORS

K. Adicks
W. Auger
B. Bohn
C. Bowhay
J. Carlile
J. Clark
G. Graves
C. Kern
L. Loomis
M. Matylewich
C. Ryder
P. Pattillo
C. Starger (phone)
G. Williams
T. Williams

A. Huang
B. Rosenberger
A. Webb
H. Wood

STAFF

J. Field
K. Forrest
M. Lapointe
T. Tarita

PACIFIC SALMON COMMISSION MEETING
OCTOBER 16-17, 2012
VANCOUVER, B.C.; PSC OFFICES

RELATED DOCUMENTS

1. Draft agenda
2. Report from 3rd Workshop: Evaluating the Effects of Salmon Fisheries on Southern Resident Killer Whales
3. Instructions for the Fraser River Panel to negotiate a new Annex IV, Chapter 4
4. Fraser River Panel and Fraser River Technical Committee workplan
5. Northern Panel and Northern Boundary Technical Committee workplan
6. Southern Panel, Coho Technical Committee and Chum Technical Committee workplan
7. Chinook Technical Committee workplan
8. Transboundary Panel and Transboundary Technical Committee workplan
9. Selective Fishery Evaluation Committee workplan
10. Data Sharing Technical Committee and Data Standards Sub Committee workplan
11. Sentinel Stocks Committee workplan
12. Habitat and Restoration Technical Committee workplan
13. Committee on Scientific Cooperation workplan

Draft Agenda

Pacific Salmon Commission Business Session

October 16-18, 2012
PSC Offices
Vancouver, B.C.

1) Adoption of Agenda and Introductions

- Introduction of new Commissioners
- Introduction of new Executive Secretary

2) Approval of Minutes (both sets recommended for approval)

- January 9-13, 2012
- February 13-14, 2012

3) Action Items Pending

- PSC External Review - Report from PRIG
- Sockeye Workshop - Development Integrated Plan - Update from Steering Committee
- Report from 3rd workshop: Evaluating the Effects of Salmon Fisheries on Southern Resident Killer Whales
- Hydroacoustics Working Group - Follow-up
- Cohen Commission Final Report - update from Canada

4) Tasks Arising from Bilateral Agreement

- Report - Fraser Panel Commission Guidance
- Timelines for revised Annex IV, Chapter 4 (Fraser River Sockeye and Pink Salmon)

5) Reports from Panels and Committees

- Presentation of annual work plans to reflect obligations and assignments
- Adoption of Instructions to Panels and Committees

6) Confirm Forward-Looking Agenda

7) Other Business

Evaluating the Effects of Salmon Fisheries on Southern Resident Killer Whales:

The workshops are done, now what?

- The Independent Science Panel will meet as necessary to write its final report, taking into account public and agency comments on its draft report and the presentations and discussions that occurred at the 3rd workshop.
- The Panel's final report is due no later than November 30, 2012. It will be posted on NOAA's website at:

<http://www.nwr.noaa.gov/Marine-Mammals/Whales-Dolphins-Porpoise/Killer-Whales/ESA-Status/KW-Chnk.cfm>
- Any interested party may submit comments on the Final Report to NOAA Fisheries and Fisheries and Oceans Canada (DFO). Written comments should be sent by January 31, 2013 by email to orca.plan@noaa.gov (all comments received by email will be shared with both agencies) or by regular mail sent directly to one or both agencies. Although we cannot commit to provide specific responses, all comments will be reviewed by the agencies to help inform future management decisions and recovery activities.
- NOAA Fisheries and DFO will confer with a view to coordinate their respective responses to the Final Report. Among other issues, they will consider how the findings and conclusions might
 - affect implementation and development of their respective recovery programs for Southern Resident Killer Whales
 - affect existing and future salmon fishery management decisions
 - influence priorities for research and monitoring
- After reviewing the findings and conclusions in the Final Report and conferring with DFO, NOAA Fisheries will decide whether to issue new guidance for U.S. fisheries or reinstate ESA consultations on existing U.S. fisheries. DFO also will review the findings and conclusions of the Final Report to help inform decisions regarding Canada's domestic responsibilities.
- If NOAA Fisheries and DFO conclude that changes in salmon fisheries are warranted, they will work within existing domestic processes and the Pacific Salmon Commission to address such changes, with a view to coordinating fishery management responses.
- NOAA Fisheries and DFO will continue their existing practice of cooperating and coordinating research to guide SRKW recovery efforts.

October 16, 2012

Pacific Salmon Commission instructions to Fraser River Panel:

Recognizing the need to review the Cohen Commission Final Report before committing to negotiate a multi-year renewal of Chapter 4 and Canada's need to conduct domestic consultations, the Commission supports the following direction to the Fraser Panel:

The Fraser River Panel (the Panel) will draft a revised Chapter 4, Annex IV of the Pacific Salmon Treaty, which will include changes reflecting the February 17, 2011 Commission Guidance to the Panel, and other changes identified and agreed to by the Panel. The Panel will provide an update to the Commission at the beginning of the February 2013 Annual Meeting. The Panel will notify the Commission during the January 2013 Post Season meeting should they detect difficulties with reaching agreement by May 2013.

September 28, 2012

PACIFIC SALMON COMMISSION WORK PLAN
2012-2013

Panel / Committee: Fraser River Panel and Fraser River Panel Technical Committee

Date: Provided at PSC Executive Session in Vancouver, BC on October 16-18, 2012

Update on Bi-lateral Tasks Assigned During the October 2011 PSC Executive Session:

In 2010, the Commission provided direction to the Panel on three issues pertaining to implementation of Paragraphs 3 and 8 of the Fraser River Sockeye and Pink Salmon agreement (Chapter 4, Annex IV) (“Commission Guidance to the Fraser River Panel, February 11, 2010”). This Guidance was originally intended to operate with the existing Chapter language for the 2010 season only, with both the Chapter and Guidance expiring at the end of 2010. On December 21, 2010, diplomatic notes were exchanged between the United States and Canada to formally approve the Commission's recommendation that Chapter 4, Annex IV of the Pacific Salmon Treaty be extended through 2012. Consistent with this extension, the Commission renewed Guidance on February 17, 2011 and directed the Panel to continue to implement the Commission Guidance for Paragraphs 3 and 8 in managing fisheries in 2011 and through the 2012 season. In 2012, the Commission agreed to extend Chapter 4, Annex IV, and the existing Commission Guidance as renewed in 2011, for an additional year, through the end of 2013.

The Panel implemented the Commission Guidance for the 2012 sockeye salmon fisheries season. Prior to the conclusion of the annual meeting cycle, the Panel also addressed the other “Special issues” identified in the 2011/2012 Work Plan submitted to the Commission on September 30, 2011.

Obstacles to Completing above Bi-lateral Tasks:

There were no obstacles to Panel implementation of the Fraser River Sockeye and Pink Salmon agreement, February, 2011 Commission Guidance, and the 2011/2012 Work Plan in 2012.

Potential Issues for Commissioners:

Chapter 4 of Annex IV expires at the end of 2013 along with the current Commission Guidance. The Panel is seeking direction from the Commissioners on actions to assist in the renewal of the Chapter prior to its expiration.

Proposed Meeting Dates and Draft Agendas:

October 16-18, 2012 PSC Executive Session

Present the 2012/2013 Fraser Panel/Fraser River Panel Technical Committee Work Plan to the Commission.

Special issues the Panel will address by the conclusion of the Annual meeting cycle including:

1. Review and provide a report to the Commission on the 2012 implementation of the provisions defined in the February, 2011 Commission Guidance to the Fraser River Panel.
2. Address management performance and accountability issues, including a review of "2012 Fraser Management Plan Principles and Constraints" and consistency in managing all fisheries to meet bilateral objectives.
3. Continue to review the technical information and modeling work being used as the basis for the Fraser Panel's Management Adjustments. Review the procedure for incorporating these adjustments into in-season management of Fraser sockeye.
4. Compare in-season estimates of run size by management group with observed spawning escapements, catches and any applied management adjustments, including review of upstream migration timing, en-route mortality and spawning success of late-run stock components. Where differences are observed, evaluate the potential causes of observed differences, including consideration of the potential contribution of fishery induced mortalities to any discrepancies.
5. The Panel will prepare recommendations on 2013 Fraser sockeye and pink salmon-related proposals to the Southern Endowment Fund (SEF) Committee. The Panel developed a list of specific funding priorities, which was used in the SEF call for proposals, so that applications will be focused on work of the most value to the Panel.
6. Review issues concerning the management of Fraser sockeye and pink salmon, including escapement goal determination, documentation of escapement levels, and variations in marine area migration timing that result in stock and/or species overlap and management complications in Panel fishery harvest areas.
7. The Panel will continue discussions on methods for determining allowable impacts on non-targets stocks and species, and necessary conservation actions, in Panel Area fisheries.
8. The Panel will review and discuss data and management implications relating to the placement of stocks within the Fraser River Sockeye Management Groups, including the changes made to the stock aggregations in 2012. As an outcome of this discussion and review, the Panel will determine whether further revision of stock management group assignments for individual stocks is warranted, and whether the

stocks would be more appropriately managed as part of other stock management groups for 2013 or longer term.

9. Respond to applicable portions of the of the 2012 PSC Performance Review, following instructions to be supplied by the Performance Review Implementation Group.

January, 2013 PSC Post-Season Meeting

Each National Section shall conduct detailed reviews of the 2012 Fraser River sockeye salmon returns, fishery performance, special conservation actions and escapement levels and provide a summary of this information to the Commission.

The Panel will discuss issues that may arise from the Final Report of the Cohen Commission, scheduled to be released by October 29, 2012.

The Panel will act on any directions provided by the Commission concerning renewal of Chapter 4 prior to its expiration.

February, 2013 PSC Annual Meeting

The Panel shall continue discussions of any unresolved special issues.

The Panel shall address "Other Activities" Identified for the Panel in the 2012/2013 Work Plan.

The Panel will initiate the 2013 Pre-Season Planning process consistent with the provisions of Annex IV, Chapter 4 of the Pacific Salmon Treaty, the February, 2011 Commission Guidance for Paragraphs 3 and 8, any additional Commission guidance, and the Fraser Panel Pre-Season Planning Process document. The Panel will require meetings in April and June 2013 in addition to the PSC Annual Meetings to complete pre-season planning tasks.

Outline of Other Activities of the Fraser River Panel for the 2012/2013 Cycle ***This list includes special items/topics of less time sensitive nature or one-time projects.***

Continue the Development of an Improved Fraser Fishery Model: The Panel will facilitate, monitor and provide guidance as necessary to the efforts of the PSC Staff and Fraser River Panel Technical Committee to develop the new Fraser Fishery Pre-season planning Model.

Continue to Review Essential Spawning Assessment and Enhancement/Operations Activities: The Panel will monitor the plans and funding intent for key spawning escapement assessment efforts and in-river enhancement/operations activities required to support priority conservation and management needs for Fraser River sockeye and pink salmon. The Panel will provide advice as appropriate.

Review 2012 Test Fisheries and Develop a Test Fishing Plan for the 2013 Season.

Review Progress in Completing the Canadian Sockeye Escapement Initiative: The Panel will receive a presentation on changes and updates to the Fraser River Sockeye Spawning Initiative (FRSSI).

The FRPTC will review and the Panel will discuss the performance of in-season update models for each Fraser Sockeye Management Group in 2012.

The FRPTC will review data comparing stock composition in 2012 Area 20 test fisheries to the stock composition in subsequent U.S. fisheries, and provide an update to the Panel on their comparability.

PSC staff will review and the Panel discuss options for in-season estimation of Pink Salmon escapement at Mission associated with species composition and acoustic methods.

PSC staff will provide a progress report on the sampling programs at Mission, including any issues that arose from modifications made to the program in 2012 in response to higher than normal water levels. The Panel will also receive a report on the 2012 Qualark acoustic program.

The FRPTC will review the 2010 and 2011 data updates to the Fraser sockeye catch and exploitation rate files, and make revisions as needed.

The Panel will review the PSC's proposed "Documentation of the Fishery Catch Proposal Table" (M. Hague, PSC File 6100 – 04, 9/2/2011) for its potential inseason use by PSC as a new tool for evaluating U.S. and Canadian Fraser sockeye and pink salmon fishery proposals.

The Technical committee will draft a memo on data sharing and co-ordination so that changes to production data can be tracked from various data sources.

Review Management Adjustment (MA) Models: The Panel will review MA models with particular emphasis on understanding the sources of bias in forecasts of river temperatures, potential alternative models and approaches including models based on subsets of years and/or component stocks, and conceptual approaches to quantifying the relative impacts of measure error and en-route mortality.

The Panel will receive an update of progress of the SEF project designed to address Runsize Adjustments for Fraser sockeye.

Identify Key Projects Through The Ad Hoc Fraser River Panel Southern Endowment Fund Scoping Group: This group, with the assistance of the PSC technical staff, will identify opportunities for the enhancement, restoration, and improved management of Fraser River sockeye and pink salmon. The Panel will provide advice to the Southern Fund Committee on the merit and value of Fraser sockeye and pink salmon related projects proposed by other groups.

Administrative Issues: Review and approve outstanding Panel minutes and Fraser River Panel Annual Reports.

Review the PSC proposed budget for 2013 Fraser River Panel Programs.

Review the Panel's standing document – "Fraser Panel Pre-season Planning Process."

Fraser River Panel 2012/2013 Meeting Schedule¹

January 14-18, 2013	PSC Post-Season Meeting	Vancouver
February 11-15, 2013	PSC Annual Meeting	Portland
March, 2013 – 1 day	Fraser River Panel Technical Committee	TBD
April, 2013 – 2 days	Fraser River Panel Technical Committee	TBD
April, 2013 – 3 days	Fraser River Panel Pre-Season Planning	TBD
May, 2013 – 2 days	Technical Modeling Meeting	Vancouver
June, 2013	Fraser River Panel Technical Committee	TBD
June, 2013	Fraser River Panel Pre-Season Planning	TBD
July 5, 2013	Fraser River Panel – In-Season Meeting	Call
July 12, 2013	Fraser River Panel – In-Season Meeting	Call
July 19, 2013	Fraser River Panel – In-Season Meeting	Call
July 26, 2013	Fraser River Panel – In-Season Meeting	Call
August 2, 2013	Fraser River Panel – In-Season Meeting	Richmond
August 9, 2013	Fraser River Panel – In-Season Meeting	Richmond
August 16, 2013	Fraser River Panel – In-Season Meeting	Richmond
August 23, 2013	Fraser River Panel – In-Season Meeting	Richmond
August 30, 2013	Fraser River Panel – In-Season Meeting	Richmond
September 6, 2013	Fraser River Panel – In-Season Meeting	Call
September, 2013	Fraser River Panel – Post-Season Meeting	TBD

1 – This schedule will be reviewed for opportunities to improve upon efficiency and reduce Panel costs.

PACIFIC SALMON COMMISSION WORK PLAN
2012-2013
[Accepted by Commission on October 16, 2012]

Panel / Committee:

The Northern Panel and Northern Boundary Technical Committee

Date:

For review at the Commission Executive Session October 16-18, 2012.

Update on Bi-lateral Tasks Assigned Under Current PSC Agreement:

Northern Panel:

1. Review Northern Boundary Area fisheries for 2012 and discuss compliance with provisions of the 2009 PST Agreement.
2. Review and approve the Northern Boundary Technical Committee's update of the 2010 and 2011 allowable and actual harvests of sockeye salmon, and 2012 allowable and actual harvests of pink salmon, as specified in Annex IV, Chapter 2.

Northern Boundary Technical Committee:

Complete the 2010 and 2011 boundary area sockeye salmon, and 2012 pink salmon run reconstructions, update the cumulative AAH harvest sharing agreements, and submit to the Northern Panel for approval. These will be the first sockeye salmon run reconstructions to use genetic stock identification analysis instead of scale pattern analysis for catches in the U.S. fisheries.

Obstacles to Completing above Bi-lateral Tasks:

None

Outline of Other Panel / Committee Tasks or Emerging Issues:

Northern Panel:

1. Review the status of the Northern Fund, receive updates on funded projects, and provide input as appropriate for project funding processes underway for 2012 - 2013.
2. Exchange information on fisheries in the Northern Boundary area.
3. Provide input on the Pacific Salmon Commission Performance Review as requested by the Commission.

Northern Boundary Technical Committee:

1. Review the scale and SNP analyses of matched samples collected from sockeye salmon caught in the 2009 Alaska District 101 gillnet and District 104 purse seine fisheries; these were not completed in time for last year's 2004-2008 matched sample review.

2. Review procedures for further substitution of SNP estimates for scale pattern estimates in estimating the stock composition of sockeye salmon caught in other Alaskan fisheries and the incorporation of these estimates in the run reconstruction model and AAH harvest sharing agreement.
3. Provide input on the Pacific Salmon Commission Performance Review as requested by the Commission.

Potential Issues for Commissioners:

None.

Proposed Meeting Dates and Draft Agendas:

Northern Panel:

1. The Northern Panel will meet in conjunction with the Commission Post Season Meeting in January 2013 and, as determined appropriate by the Panel in January, the Commission Annual meeting in February 2013.

The Panel will review relevant 2012 boundary area fisheries information; receive information from the NBTC on the utilization of genetics analysis for estimating the contribution of Alaska, Nass, Skeena, and Fraser sockeye stock groups in Alaskan boundary area net fisheries; discuss the status of Northern Fund projects and processes; and provide input as requested to the Commission regarding the PSC Performance Review.

Northern Boundary Technical Committee:

1. The full NBTC will meet in conjunction with the Commission Post Season Meeting in January 2013. The Committee will review the final year of Alaskan matched catch sample analyses, the initial years of SNP analysis, and procedures for further incorporation of SNP analyses into the run reconstruction and AAH calculations.

Status of Technical or Annual Reports:

The NBTC Annual Report for 2012 fisheries is expected to be available for the January meeting.

Comments:

None

PACIFIC SALMON COMMISSION WORK PLAN

2012-2013

[Accepted by Commission on October 16, 2012 ; not including appendices]

Panel / Committee:

Southern Panel, including the Coho Technical Committee and the Chum Technical Committee.

This work plan includes a summary of the work plans submitted by both the technical committees, and as such does not include all of the detail in those work plans. This is not intended to deny the importance of that detail, only to provide a high level summary of it for Commissioners.

Date:

October 16-18, 2012 (PSC Executive meeting, Vancouver, BC)

Update on Bi-lateral Tasks Assigned Under Current PSC Agreement:

Southern Panel:

- *Annual Post Season Review – A detailed bilateral review of the 2012 coho, chum and Chinook salmon abundances, fishery performances, and preliminary estimates of escapement levels will be conducted at the January 2013 PSC post season meeting.*
- *Conduct pre-season data exchanges.*
- *Review and recommend priorities for Southern Endowment Fund Committee consideration.*
- *Update reporting requirements, and assign work as required for completion.*

Coho Technical Committee:

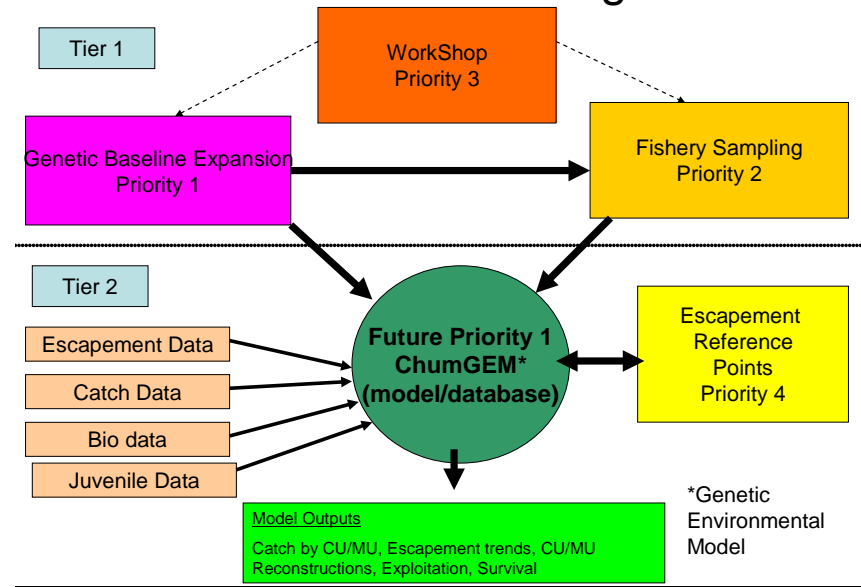
- *Coho Abundance Based Management (ABM) Implementation Requirements*
 - *Review Status of Management Units (MUs) and annual target exploitation rates.*
 - *Annual review of performance of ABM system*
- *Continue development of regional fishery planning model and tools.*
 - *Continue work on expanding the Base Period for FRAM to better represent variable fishery patterns and stock distribution profiles, which in turn is expected to improve model performance and utility. For example, different base periods could be chosen to represent inside or outside Vancouver Island distribution patterns.*
 - *Create terminal area management modules for use in Canada.*

- *Conduct a post-season comparison of exploitation rates as estimated independently by Coho FRAM and by CWT double index tag studies.*
- *Determine MU specific reference points for determining status and associated exploitation rate constraints.*
 - *Complete Canadian domestic benchmarks and align with PSC coho MUs for CSAP review in 2013.*

Chum Technical Committee:

- *The annual report covering 2011 fisheries and research will be the main focus during the PSC meetings in January 2013. It is expected that this report will be completed shortly after the PSC annual meeting in February, 2013*
- *The committee's other focus for the 2012-2013 time period will be to further develop the following aspects of the strategic plan (see attached Figure). These include:*
 - *Depending on SEF funding, begin developing the Chum GEM model (future Priority 1). This will include investigating database development for the ChumGEM model and starting to set out objectives, model structure, inputs and outputs.*
 - *Three projects have been supported through the first round of proposals by the SEF to support priorities 1 through 3. Members of the Chum TC have been assigned to lead each of these, and we anticipate successful completion of each of these projects by the end of 2013.*
 - *One of the currently funded SEF projects will support a genetic stock identification and assessment workshop, to be held in Canada and repeated in the US, to communicate the Chum TC's strategic approach to managers and biologists and obtain their support for implementing it successfully. These workshops will be held in conjunction with the 2013 Salmon Commission meetings in Vancouver and Portland (this latter workshop will be held in Olympia the Friday of the week of the Portland PSC meeting). Chum TC members will have leadership roles in these workshops.*
 - *Maintain a database of DNA samples collected in southern BC and WA that are available for genetic analysis*
 - *Continue developing a web-based map program that compliments the sample database to keep track of all samples and relevant metadata (e.g., adult run time, CU_ESU designation, processing laboratory, genetic data type, etc).*
 - *Identifying additional sampling requirements to complete and/or update the existing baseline collections Seeking other funding opportunities or resources to help with the database development, and other priority items such as the Escapement Reference Point development.*

Southern Chum Strategic Plan



Obstacles to Completing above Bi-lateral Tasks:

Southern Panel:

- The timing and mechanism for the required pre-season data exchange continues to be slightly problematic. In recent years an electronic data exchange in mid-March followed by a conference call, if required, has proven to be a cost effective method of exchanging the necessary data among fishery managers. Some panel members continue to prefer a formal meeting. We will continue to discuss the option in bilateral panel sessions, however, this issue may come to the attention of the Commissioners.

Coho Technical Committee:

- As in previous years, efforts of the CoTC have been affected by availability of key members of the CoTC and consultants to participate. Health issues of CoTC members continue to affect the capacity of the TC to meet its obligations.

Chum Technical Committee:

- *We appreciate the support of the Southern Panel for Southern Endowment Fund support for implementing our strategic plan. This is necessary for us to continue moving this plan forward*

Outline of Other Panel / Committee Tasks or Emerging Issues:

Southern Resident Killer Whale Recovery planning may require more information concerning Chum Salmon as a prey species.

Potential Issues for Commissioners:

None presently identified.

Proposed Meeting Dates and Draft Agendas:

Attendance at meetings for Technical Committee members may be dependent on available resources.

Southern Panel Meeting Schedule:

- *January 14-18, 2013 – PSC Post Season Meeting, Vancouver, BC.*
- *February 11-15, 2013 – PSC Annual Meeting, Portland OR.*

Coho Technical Committee:

- *November 2012– Coho Model Workgroup.*
 - *Continuation of efforts to expand Base Period data, MSM and cohort analysis*
- *November 2012– Coho Working Group teleconference.*
 - *Review performance of Coho Agreement and CoTC work plan. Provide policy guidance on prioritization of assignments.*
- *January 14-18, 2013 – PSC Post Season Meeting, Vancouver, BC*
 - *Work on CoTC assignments and prepare for backwards Coho FRAM post-season assessment of impacts.*
- *February 11-15, 2013 – PSC Annual Meeting, Portland, OR*
 - *Work on CoTC assignments and prepare post-season assessment of impacts.*
- *March 2013 – Electronic Data Exchange and Telephone Conference, as required*
 - *Annual information exchange*
- *June 2013– Coho Working Group teleconference.*
 - *Review status of CoTC implementation of work plan*
- *Summer 2013– CoTC Modeling Workgroup.*
 - *Evaluation of base period expansions, continuation of work on model improvements*
- *Fall 2013– CoTC Modeling Workgroup.*
 - *Evaluation of base period expansions, continuation of work on model improvements*

- *Fall 2013– Coho Working Group teleconference.*

Chum Technical Committee:

- *January 2013 – PSC post season Meeting Vancouver, BC*
 - *Review and discuss of preliminary post season 2011 fisheries information*
 - *Collate and review report items for 2010 final post season report*
 - *Initiate drafting of 2010 final report.*
 - *Continue work on Southern Chum genetic baseline inventory and expansion for adequately identifying stock origin of fish in mixed stock fisheries on both sides of the border.*
 - *Review and discuss research and analysis activities essential to the Committee tasks.*
 - *Provide any bilateral analyses, as requested by the Southern Panel.*
 - *Friday, January 18, hold workshop on Southern Chum Strategic Plan in Vancouver*
- *February 2013 – PSC Annual Meeting, Portland, OR*
 - *Address any specific tasks assigned to the Committee by the Southern Panel at the January meeting.*
 - *Continue work on tasks not completed at the January meeting*
 - *Assign workgroups and workgroup tasks for items still pending at the end of the February meeting.*
 - *Friday, February 15, hold workshop on Southern Chum Strategic Plan in Olympia, WA*

Status of Technical or Annual Reports:

Southern Panel:

- *To be reviewed at the Post Season meeting, with a plan developed to complete outstanding reporting requirements.*

Coho Technical Committee:

- *The 2011 Annual Report will be completed at the February 2013 meeting and made available on the PSC website.*
- *The committee is currently finalizing a periodic report covering catch years 1986-2009 with an anticipated completion date prior to the end of 2012.*

Chum Technical Committee:

- *2010 Annual Report is nearly complete and will be submitted for publication in September 2012. The committee anticipates having the 2011 Annual Report complete soon after the end of the February meetings in 2013.*

Appendices

1. Coho Technical Committee Detailed Work Plan
2. Coho Technical Committee Workplan - Coho ABM Implementation Requirements

APPENDIX 1

SOUTHERN COHO TECHNICAL COMMITTEE Workplan for October 2012 to September 2013

Panel / Committee:

Southern Coho Technical Committee (CoTC)
Southern Panel and Coho Work Group

Date: *October 2012 (Executive Session)*

Update on Bi-lateral Tasks and Summary of 2011 Workplan:

The CoTC has established several workgroups to work on various assignments in the following recommended order of priority:

(1) Regional fishery planning model development

- a) Bilateral interaction for the CoTC has centered on model improvements and continued extension of base period data sets for the regional planning model (FRAM). Much of the progress has relied on support from the Southern Endowment Fund which has funded the following activities:
1. The completed conversion of the FRAM from VB6 to VB.net.
 2. Ongoing preparation of documentation (programmer's and user's guides), code validation, and provisions for training and bilateral development/maintenance.
 3. Ongoing preparation of data for catch years 1998-2009 Cohort Analyses: Data compilation is ongoing with expected completion under projects supported by the Southern Endowment Fund. Further expansion to include catch years 1979-1985 will be undertaken after the recent data are completed.
 4. The conversion of RRTerm/MSM components to VB.net and development of algorithms and software for CWT-based cohort analysis to analyze catch years with mark-selective regulations: Substantial progress has been made on these support programs. Working versions are available but need further testing and debugging. Algorithms for the Mixed Stock Model (MSM) have not been finalized. Additionally, work awaits development of standardized estimation methods by Selective Fishery Evaluation Committee (SFEC). It is anticipated that the catch years in the period since 1998 have additional

computation difficulties resulting from widespread use of mark-selective regulations and reduced exploitation rates. The MSM/RRTERM programs will need to be modified for consistency with algorithms developed by the SFEC to quantify mark selective fishery mortalities and incorporate estimates of mortalities and encounters. The CoTC needs to review calculation methodologies for these cohort analyses and incorporate them into MSM estimation process. This will allow these additional catch years to be included in Coho FRAM base period analysis.

- b) Further refinements were made to the “Backwards” FRAM model to facilitate reconstruction of exploitation patterns and stock abundance from post-season data. The “Backwards FRAM” model is the primary source of estimates of post-season exploitation rates provided to the Southern Panel. Efforts to improve the data entry process for Backwards FRAM continued.

(2) Documentation of reference points for determining status and associated exploitation rate caps for individual management units (MUs).

The application of the Coho ABM plan requires reference points and exploitation rate caps for each Management Unit. This task was initiated at a Nov 2004, bilateral workshop to discuss and review current methods for determination of MU status, reference points, and allowable exploitation rates. These have been defined for US MUs. Development of reference points for Canadian MUs is proceeding in coordination with implementation of the Wild Salmon Policy (WSP) (in progress). To this end, Canada completed a meta-analysis of coho stock productivity and developed a Coho Harvest Optimization Model (CHOM) reviewed by the PSARC process and the CoTC during the January 2009 PSC meeting. This model simulates the dynamics of multiple populations of differing productivity and capacity and evaluates their performance under different harvest regimes based on simulated yield, inter-annual variability in yield, as well as conservation status of individual populations. The final step, to complete the determination of WSP benchmarks and MU reference points, is a priority for Canada to meet requirements for a review of southern BC coho status by the Committee on the Status of Wildlife in Canada (COSEWIC) in 2013-14.

- (3) Develop protocols for annual information exchange. The need for and role of the pre-season manager-manager meetings were discussed by the CoTC, Coho Work Group (CoWG), and Southern Panel and tentative agreements to meet were reached. In 2012, the Parties did not meet to exchange information on their domestic fishery management processes, concerns and priorities. Instead, planning data were exchanged electronically.
- (4) Identify information content and format for annual and five-year periodic post-season reviews. Efforts to standardize reporting formats and streamline data entry for Backwards FRAM have alleviated problems associated with collating and entering post-season data into model command files.

The CoTC completed the annual report for 2010 fishing season and a draft periodic report covering the years 1986-2009. Efforts are underway to make the annual estimates of exploitation rates available to the public as official records of the PSC. Additional

information will be produced upon request. The CoTC plans to provide the final 1986-2009 periodic report to the Southern panel in 2012.

The CoTC also recommends that a report be prepared to discuss the risks and consequences of failing to develop the details for implementation of the Coho ABM plan using criteria such as 1) conservation risk and stock outlook, 2) loss of fishing opportunity, and 3) utility of joint planning tools, etc. The result of this review would inform priority setting for work and funding required to complete the workplan tasks.

- (5) Develop agreed upon criteria and procedures for determining MU status. A common approach to data collection and parameter estimation, where feasible and appropriate, will facilitate implementation.
- (6) Complete MU descriptions. An outline of requirements was developed in 2003 and reviewed in 2009. A Coho database has been developed for U.S. stocks. Draft descriptions were prepared for Canadian MUs and will be finalized once reference points are determined. Draft descriptions for US MUs were completed in 2012 and are currently under review by local fishery managers.
- (7) Criteria for defining MUs: A draft discussion paper has been prepared and is available as a publication from the PSC. No further work on MU delineation is anticipated for the foreseeable future.
- (8) Assessment Framework. A presentation was made to the Southern Panel at the February 2012 Annual Meeting in Vancouver describing a draft framework to identify the biological and fishery assessments required for implementation of the Treaty provisions for Coho. The framework provides guidelines or criteria to help evaluate the adequacy of available information and the capacity of assessment programs to produce information required to implement the Southern Coho Agreement, highlights issues relating to CWT data for coho, and presents information needs within a decision-theoretic framework to help inform policy deliberations of relationships between uncertainty, risk, and potential requirements for assessment programs. Criteria discussed include: 1) conservation risk and stock outlook, 2) loss of fishing opportunity, and 3) costs for monitoring and assessment. A report on the assessment framework is in preparation.

Obstacles to Completing above Bi-lateral Tasks:

Efforts of the CoTC have been affected due to the availability of members of the CoTC and consultants to participate. In addition, the U.S. section continues to be concerned about (1) the capacity of Canada to maintain catch sampling and stock monitoring programs, provide required inputs into joint management planning models; (2) the need for additional dedicated staff to participate in activities of the CoTC

and (3) the need to improve information exchange on preseason FRAM model runs for impact projections (preseason model runs from Canada are needed to provide projections of planned fishery impacts on MUs).

Outline of Other Panel / Committee Tasks or Emerging Issues:

The Southern Panel established the CoWG in 2003 to provide guidance on policy-technical issues. The CoWG convened two times during 2011-2012 and provided substantive discussion and guidance on priority work tasks.

Budget availability and timing remain of concern. Uncertain appropriations and budget allocation decisions for both the U.S. and Canada impede the capacity of the CoTC to plan its schedule. The CoTC and CoWG may need to revise the workplan once budgetary and staffing limitations are clarified.

Potential Issues for Commissioners:

- (1) Establish a process that provides the CoTC the opportunity to review relevant proposals that are submitted for endowment fund support. In addition, progress and final reports for Southern Endowment Fund projects involving Coho should be routinely provided to CoTC for information.*
- (2) The membership of the CoTC and its various workgroups will need to be re-evaluated in light of the recent loss of key members.*

Proposed Meeting Dates:

When	Who	Location	Purpose
November 2012	CoTC Model Workgroup	Bellingham, WA	Continuation of efforts to expand Base Period data, MSM and cohort analysis
November 2012	CoWG	teleconference	Review performance of Coho Agreement and CoTC workplan. Provide policy guidance on prioritization of assignments.
Jan 2013 PSC Post Season Meeting	CoTC	Vancouver, BC	Prepare for 2011 post-season assessment of impacts and familiarize Canadian members of workgroup with methods for model parameterization. Present Periodic report to Southern Panel. Continue work on assignments, review Endowment Fund projects.
Feb 2013 PSC Annual Meeting	CoTC	Portland, OR	Use Coho Model to perform post-season assessment of impacts. Incorporate CWT data (phase 3) in post season reviews for years available.
Mar 2013	Coho Workgroup	electronic data exchange as needed	Annual manager-manager information exchange, continue workgroup deliberations
June 2013	Coho Workgroup	TBD – teleconference or Richmond, BC?	Review performance of Coho Agreement and CoTC workplan. Provide policy guidance on prioritization of assignments
Summer 2013	CoTC Model Workgroup	TBD – Seattle or Vancouver	Evaluation of Base Period expansions, continuation of work on model improvements
Fall 2013	Coho Workgroup	teleconference)	Review performance of Coho Agreement and CoTC workplan. Provide policy guidance on prioritization of assignments
Fall 2013	CoTCModel Workgroup	TBD – Victoria(?)	Continuation of work on model improvements

Status of Technical or Annual Reports:

- *Workplans and status were reviewed through presentations at the 2012 PSC meetings.*
- *2010 Post-season estimates of exploitation rates were presented to the Southern Panel at the February 2012 meeting in Vancouver.*
- *The committee is currently finalizing a periodic report covering catch years 1986-2009 with an anticipated completion date prior to the end of 2012.*

- *Draft descriptions for US MUs were completed in 2012 and are currently under review by local fishery managers.*
- *Completion of Canadian MU descriptions are pending finalization of data for the periodic report and domestic conservation unit benchmarks.*
- *Assessment Framework report will be finalized at the January 2013 meeting in Portland.*
- *Annual report on CoTC priorities will be developed for the Southern Fund Committee.*

APPENDIX 2

Coho Technical Committee Workplan Coho ABM Implementation Requirements

The following work plan has been developed to provide a guide for implementation of the Coho Abundance Based Management Regime (CoABM) approved by the PSC in June 2008. The work plan is generally directed at the Coho Technical Committee (CoTC), but also includes activities of the Coho Working Group (CoWG) and the Southern Panel. A description of general work requirements, timelines, and staff involved, are presented in order of priority, following a description of the annual cycle for the CoABM.

Annual Cycle

The CoABM is intended to facilitate each Party's domestic fishery planning processes by providing an early indication of the maximum impact that the intercepting Party may have on a given management unit (MU). Annual application of the Plan in any given season involves the following steps (also see Table 1):

- 1) **Each Party determines the status of individual MUs** and target exploitation rates (TERs) and transmits that information to the other Party. Domestic managers will be responsible for providing this information for the MUs within their respective jurisdictions. Each Party will be required to provide documentation of the basis for their determinations of resource status on a timely schedule so conservation concerns can be taken into consideration during annual domestic fishery planning processes in both countries. In order to accomplish this task by the February PSC meeting (see Table 1), the parties may need to modify their domestic planning deadlines.
- 2) **Apply Tables in Para 9(b)-(d)** to establish ER Caps for intercepted MUs.
- 3) **Identify needs for additional reductions** of impacts in the other Party's fisheries to address conservation concerns for MUs or individual stocks within MUs. A commitment to prevent overfishing of MUs may not meet conservation objectives for all stocks within these MUs due to variability in abundance, survival, productivity, and migration or harvest patterns. If additional constraints on fisheries conducted by another Party are required or desired to meet conservation needs for critical stocks, the proposing Party should be required to provide the basis for its determination on a schedule sufficient to permit timely consideration by the other Party.
- 4) **Identify domestic considerations** that will drive fishery management regimes and likely result in exploitation rates on intercepted ER Caps below levels allowed under Paragraph 9(b)-(d). It is anticipated that the Parties will conduct a "Manager to Manager" meeting in March to discuss this topic and the progress of fishing plan development.

- 5) **Complete domestic management planning** processes to shape fisheries to try to meet management objectives while constraining impacts on each MU below the limits established by Paragraphs 8 and 9. Each Party retains flexibility to allocate impacts among its fisheries so long as total exploitation on each MU is constrained to allowable levels and so long as the combined impact does not exceed ER caps established under the CoABM. A total impact regime provides the greatest flexibility for managers to allocate impacts among its own fisheries through domestic planning processes; however, the flexibility inherent with this approach comes at the cost of greater uncertainty over the impacts of decisions made by the other Party. Consequently, increased demands are placed on information sharing and bilaterally developed models to facilitate regional coordination.

To the greatest extent possible, each Party is expected to implement such additional management measures as are necessary to address conservation needs for critical stocks within the MUs originating within their respective jurisdictions.

Managers will be expected to accommodate all impacts within allowable levels on MUs established by the bilateral regimes, whether those impacts are due to directed or incidental fisheries.

Exchange annual management plans, including anticipated MU-specific exploitation rates.

- 6) **Collate information for post-season review.** Collect information on catches (including the harvest in mark-selective fisheries), estimates of non-catch fishing mortality, and escapement for MUs. There is growing interest in pursuing management regimes that selectively harvest fish in response to increasing concerns for impacts on individual stocks of fish. A variety of selective fisheries are under consideration. Mark-selective fisheries are intended to maximize the harvest of fish with a visible external mark while maintaining or reducing impacts on unmarked fish. Other types of selectivity may be based on time/area/gear restrictions that target on specific stocks or species. Taking advantage of fishing opportunities on stocks with harvestable surpluses will often require avoiding or minimizing by-catch or incidental mortality of weaker stocks.

Selective fisheries must be conducted within the constraints of allowable impacts on MUs or critical stocks and must not unduly compromise capabilities to complete stock assessments, or evaluate fishery impacts. Selective fisheries generally represent a “deviation” from historical fishing patterns that tended to impart equal harvest rates on all impacted stocks encountered in the area. Because impacts on stocks of concern may not be directly measurable in the catch under selective fisheries operating under non-retention restrictions, it is critically important that the data and tools used to estimate those impacts be bilaterally validated. The 1996 report of the PSC Ad-Hoc Selective Fishery Evaluation Committee provides some recommended procedures to mitigate impacts of selective mark fisheries on the CWT program.

The ABM requires the annual reporting of interceptions of mass marked fish.

- 7) **Perform annual reviews.** Technical aspects of regime implementation are to be reviewed regularly to determine if revisions are necessary and advisable. Reviews are to be directed at improving understanding, establishing standards, providing feedback and validation of model parameters and exploitation rates, and developing common methodologies, models, procedures, and research developments relating to

implementation of the CoABM. Monitoring, analysis, and reporting are important for identifying potential solutions to problems or limitations in the CoABM which are experienced during implementation.

Table 1. Annual calendar associated with the CoABM

Approximate time	Annual Cycle – tasks		Bilateral information flow	Applicable Rules, Procedures	
	Domestic	Bilateral		domestic	Bilateral
By February PSC meeting	<ul style="list-style-type: none"> determine status of MUs identify stocks of special concern requiring additional management measures 			<p>procedure: apply documented procedures to population and fisheries data and forecasts to determine status of MUs</p>	
February PSC meeting	<ul style="list-style-type: none"> Request additional actions to protect stocks of special concern 		<ul style="list-style-type: none"> Exchange of status determinations for all MUs Exchange of requests for additional actions to protect stocks of special concern 	<p>rule: estimate ER Caps from MU-status</p>	
February or later?	<ul style="list-style-type: none"> Consideration of any requests by the other Party for additional actions on stocks of special concern 	<ul style="list-style-type: none"> Review status of MUs and annual target exploitation rates TERS Review basis of requests for additional actions on stocks of special concern 	<ul style="list-style-type: none"> Provide advice regarding requests for additional actions 		<p>PST: Consideration of the general objectives of the Treaty and principles of Paragraph 7(a)</p>
February	<ul style="list-style-type: none"> Identify domestic factors that are likely to result in impacts on intercepted MUs which are below ER Caps 				
? March-April	<ul style="list-style-type: none"> Develop or modify fishery plans to accommodate target exploitation rates for MUs and incorporate information on factors driving fishery regimes of the intercepting Party Generate MU-specific expectations for exploitation rates anticipated under preseason plans. 		<ul style="list-style-type: none"> Bilateral information exchange through a manager to manager meeting in March 		
April-June			<ul style="list-style-type: none"> Over see exchange preseason management plans and anticipated MU-specific exploitation rates 		
June		<ul style="list-style-type: none"> Annual review performance of abundance based management system (Because of the time 			

Approximate time	Annual Cycle – tasks		Bilateral information flow	Applicable Rules, Procedures	
	Domestic	Bilateral		domestic	Bilateral
		constraints of data availability and analysis, reporting would likely be on season prior to the one just ended.)			
fishing season and fall escapement	<ul style="list-style-type: none"> Collate fishery and population data to evaluate performance and for use in next year 				
January-February			<ul style="list-style-type: none"> Prepare preliminary report on performance to PSC Because of time constraints of data availability and analysis would likely be on season two-years previous. 		process: Requirements outlined in the PST Annex and Management Plan.

Requirement 1. Development of Regional Planning Models and Tools

Requirement The Parties have jointly developed a preseason planning tool based on CohoFRAM and first applied it for preseason fishery planning in 2004. The CoTC is tasked with developing a regional coho model to provide a consistent means for evaluating the cumulative impact of U.S. and Canadian fisheries on MUs and component stocks of conservation concern.

Significance Bilateral fishery planning models and tools provide a consistent and convenient means to improve coordination between the domestic managers of the Parties and to facilitate the development and evaluation of fishery management plans to implement bilateral conservation obligations under the CoABM.

Work

Coho Tech Committee Modeling WorkGroup				
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Work plan

	Task Description	Progress
1.	Draft model specifications developed.	Completed
2.	Modification of the US coho FRAM model to meet requirements of CoABM. Fishery and stock strata for Canada have been revised and CWT codes identified for characterization of distribution patterns for Canadian management units. New base period files have been completed. New report formats have been developed.	Completed
3.	Provide and/or develop documentation on Mixed Stock Model (MSM), Run Reconstruction (RR term), FRAM. Software has been integrated into a PC-platform package to support development of a database containing estimates of exploitation rates from cohort analysis for future modification of stock distribution patterns for use in FRAM. The new program provides Bayesian regression with fisheries weighting and a Monte Carlo simulation macro for evaluation & planning. The new methodology provides more reliable production expansion estimates through the inclusion of additional information or allows inclusion of incomplete information. A draft report by Bill Gazey on the use of the Mixed-Stock-Model to reconstruct cohort abundance and exploitation patterns	Draft documentation has been completed

	was distributed to the CoTC for review in July.	
4.	<p>Base Period Expansion: A database of historic catch & CWT recovery data has been compiled to expand the FRAM base period for 1998-2009 to better represent variable fishery patterns and stock distributional profiles. CWT groups groups were reviewed and selected for use in development of stock distributional profiles for the additional base period years. Cohort Analyses has been completed for catch years 1986-1997 and will be completed for 1998-2009. Expansion of cohort analysis for the 1979-1985 catch years will be undertaken after evaluation of 1998-2009 data have been completed.</p> <p>The availability of a set of years with complete cohort analyses will enable the CoTC to develop new base period data sets for use in Coho FRAM to improve model performance. For example, different base periods could be employed in response to expectations for stock distribution patterns inside/outside Vancouver Island.</p>	<p>Review of 1998-2009 catch year cohort analyses under review by regional fishery staffs.</p> <p>Methods to average base period years for Coho FRAM and evaluate implications have been initiated</p>
5.	<p>“Backwards” FRAM model. The CoTC has developed a “Backwards FRAM” model to facilitate reconstruction of exploitation patterns and stock abundance from post-season data. The “Backwards FRAM” model is the primary source of estimates of post-season exploitation rates provided to the Southern Panel and also provides estimates of exploitation rates for cohort analyses for untagged stocks.</p> <p>Methods to expedite the data entry process for Backwards FRAM.</p>	<p>Completed.</p> <p>Completed</p>
6.	<p>Create terminal area management modules for use in Canada. A module was developed to use in establishing effort scalars in Canadian fisheries for pre season planning. Scalars relate base period effort or catch for that predicted for the year to be modeled. Directed effort data, by fisheries and time periods as defined by FRAM base periods, was compiled. An algorithm was developed to approximate coho directed fisheries. User defined parameter tables include: value by species, fishery and period, base catch and effort, run size, and effort change and redistribution over time.</p>	In Process
7.	<p>Convert Coho FRAM and support programs from Visual Basic 6 to VB.NET. VB 6 is no longer supported by Microsoft. Conversion to VB.NET, publically available, object-oriented language, will facilitate future code development and maintenance. Work facilitated by Southern Endowment Funds.</p>	Completed
8.	<p>Improve algorithms for Mark Selective Fisheries. Development of Algorithms and Software to Analyze Catch Years with Mark-Selective Regulations. It is anticipated that the 1998-2005 catch years have additional computation difficulties resulting from widespread use of mark-selective regulations and reduced exploitation rates. The MSM/RRTERM programs and Coho FRAM (forward and backward</p>	Not Initiated. CoTC work awaits development of standardized estimation methods by SFEC

	versions) will need to be modified for consistency with algorithms developed by the SFEC to quantify mark selective fishery mortalities and incorporate estimates of mortalities and encounters.	
9.	Draft memo regarding computation of exploitation rates for component populations.	Completed – ready for review by Coho Work Group
10.	Develop methods and process for regular review of model performance and validation. Post-season comparison of exploitation rates estimated by Coho FRAM and CWT DIT groups. Facilitated by Southern Endowment Funds	In progress Joint effort with SFEC AWG. Post season Coho FRAM estimates have been generated and provided to SFEC AWG. Report on Validation of Coho FRAM completed by Bill Gazey in April 2012
11.	Investigate feasibility of establishing a discussion forum and data exchange capabilities for coho FRAM model development and CoTC.	Completed
12.	Develop position on estimation and implementation of uncertainty of exploitation rates.	Not initiated

Progress Summary:

The CoTC continues to develop Coho FRAM as a regional tool that can be used to support domestic fishery planning and performance evaluation in both the US and Canada. Fishery and stock strata have been tailored to fit available data and management needs for Canada and new reports have been designed and implemented to provide estimates of exploitation rates in relation to constraints established under CoABM regimes. A backwards FRAM model has been developed to generate post season estimates of exploitation rates and support the extension of cohort analyses methods to untagged stocks. Support programs for MSM/RRTerm have been consolidated, integrated, and improved. Additional effort will be required to develop and implement algorithms for estimating impacts of mark selective fishing.

Discussion

Coho FRAM model is catch accounting tool that can inform domestic and bilateral deliberations for fishery planning and performance. Expansion of the cohort analyses results to cover the years from 1979-2009 will enable the CoTC and CoWG to evaluate implications of variations in stock distribution patterns on estimates of exploitation rates on coho management units identified in the CoABM.

Requirement 2. Determining Management Unit (MU) specific reference points and associated exploitation rate constraints

Requirement The intent of the CoABM is to “constrain total fishery exploitation to enable key MUs of natural coho stocks to produce maximum sustainable harvests (MSH) over the long term while maintaining the genetic and ecological diversity of the component populations”. The establishment of reference points for status levels and the associated target exploitation rates (TERs) is essential to implementation of the CoABM because categorization of status and the establishment of TERs determines the ER Caps. The 2008 PST Agreement requires the Parties to identify MSH escapement levels and exploitation rates by the end of 2010.

Significance The formulae specified in paragraph 9 of the CoABM agreement are based on application of the TER for each MU. In addition, status determination will reference specific abundance levels (or other measure of status). The basis for the TERs and reference points will be of interest to the other Party because of obvious implications to fisheries. Consequently, common understanding of the methods employed to establish exploitation rate constraints will be required.

Timing Bilateral review of methods for determining reference points and TERs has been completed for US stocks but not for the Lower and Interior Fraser MUs and Georgia Basin Mainland and Vancouver Island MUs.

Workgroup

CoTC WorkGroup - Determination of Target ERs				
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Work plan

	Task Description	Progress
1	US descriptions of procedures for determining status reference points and TERs. Methods were presented at a workshop in 2004 and described for US management units in 2005.	Completed
2	Canadian descriptions of procedures for determining status reference points and TERs.	In process

Status

Canada completed a meta-analysis, “coho multi-population simulation model” (CHOM model) to inform decision makers on the implications of various fishery exploitation strategies on stock productivity and diversity. This model has the main attributes of prior models like the Skagit Model and simulates the dynamics of multiple populations of differing

productivity and capacity. The model uses a distribution of productivities (Ricker alpha parameters) which have been calculated from catch and escapement data from each MU coupled with geographic information on watershed size and suitability for coho. This will allow population diversity performance criteria to be addressed in simulations of harvest rate policies. Performance is evaluated under different harvest regimes based on simulated yield, inter-annual variability in yield, as well as conservation status of individual populations. The model was applied to two BC management units, Georgia Basin Vancouver Island and Upper Fraser, as test applications. The model has been reviewed and revised based on comments from the PSARC process. Copies were provided to the CoTC for review.

The next step is to complete Canadian domestic CU benchmarks and align with PSC coho management units. CSAP review of Canadian CU benchmarks is scheduled for 2013.

Discussion

Consistent use of agreed methods for determining targets for total exploitation rates (TERs) would greatly reduce the need for intensive, annual technical bilateral review of status assessments and allowable exploitation rates. Bilateral discussion of methods and approaches is intended to improve the transparency and objectivity that surround the establishment of the status-dependent exploitation rates.

Biological limits on exploitation of the component populations or stocks within the MU must be determined to identify the upper limits of sustainable harvest that can be allowed while maintaining genetic and ecological diversity within the MU. The CoABM embraces the concepts of sustaining fisheries while maintaining the genetic and ecological diversity of the MUs. The selection of the appropriate exploitation level for individual MUs to achieve this goal must therefore accommodate the inherent range in productivity of the component stocks through adoption of criteria for achieving acceptable levels of genetic and ecological diversity. Maintaining the genetic and ecological diversity of the component stocks requires adjustment of the target exploitation level for the MU to a level that protects the least productive stock that is deemed important for protection. Protection for less productive stocks within the MU would be at the discretion of the Parties, but would not be obligatory under the CoABM.

A margin for error and uncertainty should be incorporated into the allowable exploitation rates for management units.

In developing fishery regimes, variability in productivity, both on an inter-annual basis and between stocks within MUs, must be addressed. From year to year, the abundance of a single stock within a MU and its capacity to sustain harvest is expected to vary. Similarly, within a single year, stocks within a MU can have different productivities, depending upon biological characteristics and local environmental influences.

The determination of MU status is closely tied to processes now underway in both countries of determining “reference points”. In Canada's Wild Salmon Policy (WSP), two biological reference points are described. The Lower Benchmark is a biological reference point that describes a level of abundance high enough to ensure there is a substantial buffer between it and any level of abundance that could lead to a CU being considered at risk of extinction or the risk of not rebuilding to an Upper Benchmark (Target Reference Point) within a fixed time period in the absence of fishing. The Upper Benchmark will be established to identify whether harvests are greater or less than the level expected to provide, on an average annual basis, the maximum annual catch for a CU, given existing environmental conditions. Stock size at MSY might be such a reference point.

The WSP proposes two reference points and thus three categories of abundance. An implicit reference point, which is beneath the Lower Benchmark is the abundance where “Species-at-risk” considerations come into play. As currently envisaged, those considerations would likely apply to larger units smaller than the MUs. In the U.S., concepts analogous to the LRP and TRP reference points have been incorporated into the Comprehensive Coho plan for Puget Sound.

Wild Salmon Policy conservation units have been determined and approved by the PSARC process. Canadian draft Management units can now be reviewed for consistency with WSP and finalized. The Coho multi-population model is consistent with acceptable methodologies presented in recent PSARC workshop on determining biological reference points.

Requirement 3. Management Unit descriptions (profiles)

Requirement Provide descriptive profiles of the following key management units (MUs)

<u>Southern B.C. Inside Management Units</u>	<u>U.S. Inside Management Units</u>
Interior Fraser (incl Thompson)	Skagit
Lower Fraser	Stillaguamish
Strait of Georgia Mainland	Snohomish
Strait of Georgia Vancouver Island	Hood Canal
	Strait of Juan de Fuca
	<u>U.S. Outside Management Units</u>
	Quillayute
	Hoh
	Queets
	Grays Harbor

Significance MUs establish the basis for bilateral conservation obligations under the CoABM. Information pertaining to these MUs needs to be provided to provide a common basis of understanding.

Work group

CoTC WorkGroup - Description of MUs				
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Work plan NA.

Progress Maps identifying US and draft Canadian MUs were produced. A common format was developed by the CoTC in 2003 and reviewed in 2008. A Coho database has been developed for U.S. stocks. Drafts of MU profiles have been completed with the exception of MU status pending WSP benchmarks. Central repositories were set up for exchange of profiles and related information.

Discussion Canadian WSP conservation units have been finalized. Canadian draft MUs have been reviewed to ensure compatibility with CUs. Draft Canadian MU profiles have been developed as much as possible with the exception of MU status. Once domestic CU status is determined (2013) MU profiles will be finalized.

CoTC - Management Unit Profile Outline

	Description	Progress
1.	Geographic Description (including a map) and Rationale for MU being an MU	Completed
2.	Management Objectives, including recognized stocks within the MU, including current estimates of MSH escapement and associated exploitation rates (accompanied by methodologies)	Drafts prepared for Puget Sound MUs and Washington coastal MUs, but not completed
3.	Current Stock Assessment Methods, including: <ul style="list-style-type: none"> escapement monitoring and escapement estimation error: how is escapement estimated, what is counted in escapement, how is hatchery escapement into natural spawning areas or fish taken for broodstock from spawning grounds reflected in escapement statistics? CWT tags released, indicator stocks 	Completed
4.	Stock Status Indicators, including: <ul style="list-style-type: none"> present status, abundance trends, escapement trends, catch trends, marine survival rate trends ER history, catch distribution for 86-91 and 97-99 for comparison, Methods generally employed to determine Status and TERs, including, if applicable, how “breakpoints” are determined. Forecast Performance. forecast methods (last 3 yrs... if total run size forecasts aren’t available for recent years, use terminal run size forecasts & explain that the use of TRS reflects 2 levels of uncertainty) 	In progress
5.	Enhancement Status, including: <ul style="list-style-type: none"> total releases by fry and smolts, include brood source (i.e. locally derived brood stock); highlight most relevant trends in graph (school & community releases can be aggregated into a single release category in any charts or graphs), mass marking programs 	Completed
6.	Habitat Status (List of references)	Can.MUs initiated under WSP implementation
7.	Brief summary of limiting factors and degree/types of impacts	Completed
8.	Outlook – analogous to section in DFO’s thumbnail sketches	Annual for Can MUs
9.	References; For further info...contacts --When appropriate any data will be transformed into a graph for the synoptic document and the data can be displayed in this section --Each country will provide the other with one set of all referenced materials so that the US and Canada will each have a full set of references pertinent to these profiles	Completed

Requirement 4. Criteria for Delimiting Management Units

Requirement Delineation of MUs is a domestic task. However, the CoABM stipulates that both parties agree upon a set of criteria to be used to delimit MUs.

Significance MUs establish the basis for bilateral conservation obligations under the CoABM. Differences in scale and methods employed by the Parties led to the composite rules specified in the provisions of the CoABM.

Workgroup

CoTC WorkGroup - Criteria to Define MUs					
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Work plan A draft discussion paper on MU size options has been prepared and reviewed by the CoTC and CoWG. No further effort on this task is anticipated this year.

Progress The Parties have agreed to jointly develop common criteria for delimiting MUs. These criteria are to reflect their common understanding of fundamental biological and fisheries objectives of the Plan.

Discussion

A variety of criteria could be used to delimit the MUs. These include inherent properties of the fish themselves such as genetic relatedness, life-history characteristics and ecological similarity including ocean distributions. The criteria could use characteristics inherent in social and economic use of the fish such as fisheries profiles, treaty obligations, or other facets of social and cultural significance. The criteria could include measures that are unrelated to either the fish or our use of them. The criteria could be selected to control the extent to which arbitrarily small groups of populations could limit fisheries or to which arbitrarily large aggregations could avoid limits. Such criteria might include lower and upper limits on numbers of populations, total stream length or total number of animals at carrying capacity. To date, there has been little discussion on the criteria that have been used in defining the proposed MUs.

The MUs that would be identified using those criteria would strike a mutually acceptable balance between responsiveness to conservation concerns and avoidance of weakest-stock constraints. Nevertheless, it would be in the interests of both Parties to insure that the management system was sufficiently responsive to abundance to avoid situations where short-term harvest would risk severe limits to fisheries over the longer term.

There is no requirement for either Party to use the same MUs for domestic management and for the application of the PST arrangements, but the latitude for PST MUs to deviate from MUs used for domestic management purposes is unclear.

The delineation of MUs is interrelated to the issue of categorical status and status-dependent exploitation rates. Small management units and especially those consisting of a single stream or a few streams are more likely to exhibit wider variability than larger aggregates of stocks in which there are many populations.

Requirement 5. Procedures/rules to determine MU status

Requirement: Under the Plan, the Parties are to exchange information pertaining to the status of its MUs and TERs by February of each year. Status categories are “low”, “moderate” and “abundant”.

Significance: Annual categorization of status will determine the ER Cap for each MU. Although status determinations are a domestic responsibility, each Party will carefully scrutinize the methods and information employed because of obvious implications to its fisheries.

This work involves consideration of minimum stock assessments required to determine MU status.

Workgroup:

CoTC WorkGroup – Determination of Status-Dependent Target ERs				
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Work plan The work plan needs to determine the minimum information required to assess the status of MUs and evaluate performance with respect to CoABM obligations. The Parties should describe methods for determining status in MU profiles. Annual information, status reports, and deviations from general methods and status-dependent TERs are to be documented and exchanged in a timely manner for consideration during preseason planning processes. The scope of an annual bilateral review should be determined.

Progress

See discussion under requirement 2. The CoTC is developing an “assessment framework”. The objective of this task is to identify the biological assessments required for implementation of the Treaty provisions for coho. A common approach, where feasible and appropriate, will facilitate implementation. An explicit statement of what is required and what is desirable will provide clear direction for program planning. Sharing in this process toward a framework statement has been a requirement to do the same for Canadian coho assessment, which includes Wild Salmon Policy and other domestic considerations. The process has been facilitated by development of the multi-population simulation Model (CHOM model). A draft inventory of information requirements is prepared, the result of discussions within the CoTC this year and by DFO coho biologists. Revisions are expected. Development of the CHOM model has helped identify and prioritise requirements. A discussion paper on the framework is has been presented to the CoTC, CoWG, and Canadian and US coho experts.

Discussion:

There are three general approaches that could be taken to address this requirement:

- a) Each Party could declare status of each of its respective MUs with whatever level of technical documentation it thinks appropriate.
- b) The Parties could agree to pursue the joint development of common biologically-based procedures for determining status.
- c) The Parties could agree to a bilateral, technical review process where agreement on acceptable biologically based approaches would be sought.

Alternative (a) is the most respectful of domestic prerogatives and might be the only one practicable this year. Alternative (b) would be objective, transparent and would lend itself to the effective incorporation of new knowledge, but would not be respectful of domestic prerogatives. This approach could be viewed as the idealistic long-term objective.

Alternative (c) is respectful of domestic prerogatives because each Party would be able to choose from among the set of agreed approaches. This approach is also objective and transparent and might be the most effective means to accelerate the incorporation of new knowledge. Alternative (c) could be viewed as a pragmatic, long-term approach.

For all three alternatives, workshops will be required for a more formal information exchange on assessment methods and status determinations for each Party's MUs. For approaches (b) and (c), technical work would need to begin on investigating alternative approaches to determining status with the results to be presented at a second workshop. With approach (b), an attempt would be made at that workshop to develop a common, biologically-based process for establishing status. With approach (c), the common ground sought would be an acceptable set of biologically based methods. Both alternatives (b) and (c) would likely also benefit from improvements to data collection and forecasting methods requiring additional methods workshops. Improvements to data collection and forecasting would also benefit status determination under approach (a), but perhaps would be accorded lower priority as a bilateral process.

Status determination is dependent on forecasting methods. For some MUs, current forecasts have low precision. Although not critical to developing a Plan, improving forecasting ability is highly desirable from the perspective of resource management and for the credibility of the process.

Requirement 6. Information Exchange

Requirement	Under the terms of the CoABM, the Parties are obligated to exchange information on the status of each MU, the associated ER applicable to each MU, and other information relevant to development of fishing plans.
Significance	Information exchanged between the Parties will become the basis for fishery planning, compliance, and general progress toward a regional approach to coho management.
Work Plan	<p>The CoTC will be the main forum for exchange of information related to the development, implementation, and review of the CoABM fisheries. To facilitate this information flow, if it wishes, Canada can attend PSMFC committees such as the STT Review Committee.</p> <p>In addition, information related to fishery planning and policy issues will be exchanged at proposed manager to manager meetings, and within the CoWG. A manager to manager meeting is often scheduled for March of each year.</p>
Progress	<p>Agreed terms of reference were developed and the CoWG have been established, but meetings have not been consistently convened.</p> <p>Protocols and templates for information exchange were developed and utilized with the focus on data and information required for domestic pre-season fishery planning processes. Further staff discussions were required to clarify information needs. Additionally, there were difficulties in interpreting preliminary expectations for certain Canadian fisheries for U.S. domestic fishery planning processes. Technical information exchange on stock status and preliminary expectations for fisheries were centered on input data requirements of Coho and Chinook FRAM models. An in-person, manager-to-manager meeting to exchange information and perspectives for the United States and Canada was not convened in 2008. Instead, planning data were exchanged electronically. There was no opportunity for the Parties to exchange information on their domestic fishery management processes, concerns and priorities. The need for and role of the pre-season manager-manager meetings should be discussed and addressed by the CoTC, CoWG, and Southern Panel.</p>

Requirement 7. Annual Reviews

Requirement The PST Agreement specifies that an annual review be completed by February 1 of each year for the most recent year for which necessary data are available to:

- a) estimate exploitation rates by intercepting fisheries on MUs;
- b) determine the accuracy of pre-season expectations of status for MUs; and
- c) estimate total exploitation rates (by all fisheries combined) experienced for MUs.

Significance Annual reviews form the basis for addressing success in achieving goals of the Plan. In addition the technical aspects of regime implementation are to be reviewed regularly to determine if revisions are necessary and advisable.

Workgroup

CoTC WorkGroup - Annual Reviews				
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Workplan Receive direction from CoWG and Southern Panel.

Progress The official format for post season reviews has been reviewed and approved by the CoWG and Southern Panel for review. The CoWG has initiated discussions on requirements for monitoring. The COTC is working with the PSC secretariat to post annual reports on the PSC website.

Discussion

Collect information on catches (including the harvest in mark-selective fisheries), estimates of non-catch fishing mortality, and escapement for MUs. There is growing interest in pursuing management regimes that selectively harvest fish in response to increasing concerns for impacts on individual stocks of fish. A variety of selective fisheries are under consideration. Mark-selective fisheries are intended to maximize the harvest of fish with a visible external mark while maintaining or reducing impacts on unmarked fish. Other types of selectivity may be based on time/area/gear restrictions that target on specific stocks or species. Taking advantage of fishing opportunities on stocks with harvestable surpluses will often require avoiding or minimizing by-catch or incidental mortality of weaker stocks.

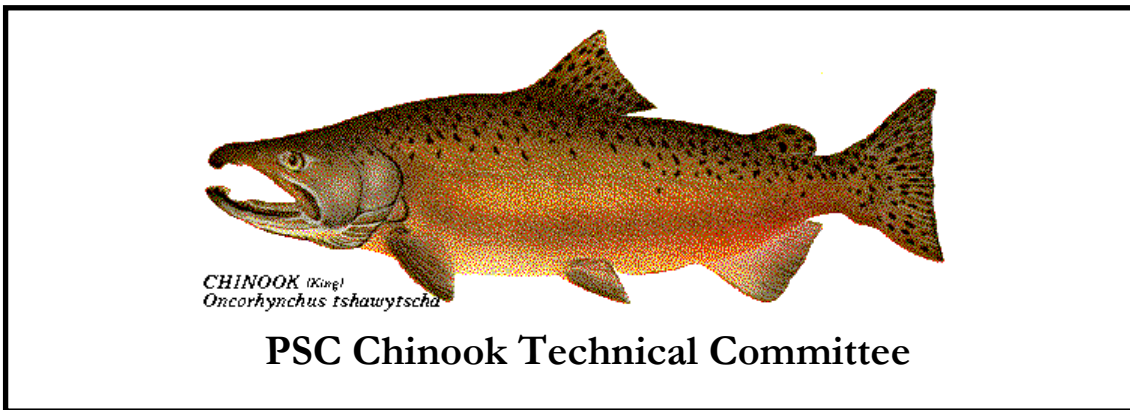
Selective fisheries must be conducted within the constraints of allowable impacts on MUs or critical stocks and must not unduly compromise capabilities to complete stock assessments, or evaluate fishery impacts. Selective fisheries generally represent a “deviation” from historical fishing patterns that tended to impart equal harvest rates on all impacted stocks

encountered in the area. Because impacts on stocks of concern may not be directly measurable in the catch under selective fisheries operating under non-retention restrictions, it is critically important that the data and tools used to estimate those impacts be bilaterally validated. The 1996 report of the PSC Ad-Hoc Selective Fishery Evaluation Committee provides some recommended procedures to mitigate impacts of mark selective fisheries on the CWT program.

The PST Agreement requires the annual reporting of interceptions of mass marked fish. US and Canadian estimates of interceptions in mark selective fisheries have been prepared and exchanged, but have not been reconciled.

Technical aspects of regime implementation are to be reviewed regularly by the CoTC, CoWG, and Southern Panel to determine if revisions are necessary and advisable. Reviews are to be directed at improving understanding, establishing standards, providing feedback and validation of model parameters and exploitation rates, and developing common methodologies, models, procedures, and research developments relating to implementation of the coho regime. Monitoring, analysis, and reporting are important for identifying potential solutions to problems or limitations in the CoABM which are experienced during implementation.

At its December 2008 meeting, the CoWG decided to eliminate the preparation of preliminary estimates of fishery exploitation rates for the previous year (provided to the Southern Panel in January or February) since those estimates can change significantly after escapement and catch data are finalized. Better estimates could be made in June; although an earlier review would be desirable, the practical logistics of processing CWT data would not permit assessment to be completed prior to that time. If annual performance reviews are required earlier, bilateral agreement on protocols and methods will be necessary.



PACIFIC SALMON COMMISSION WORK PLAN

2012-2013

[Accepted by Commission on October 17, 2012]

Panel / Committee:

The Chinook Technical Committee reports to the Pacific Salmon Commission.

Date: PSC Executive Session - October 16-18, 2012

Update on Bi-lateral Tasks Assigned Under the 2008 PSC Agreement:

1. Escapement Goal Reviews

Progress This Past Cycle: No new escapement goals were reviewed or adopted.

Anticipated Progress This Cycle: Work by the responsible agencies on establishing scalars to convert index escapements to total escapements will continue. This work will facilitate the application of the Parken habitat-based model in establishing escapement goals for data poor stocks. In addition, biologically based methods, such as EDT, the Parken model, and other model-based approaches (e.g., RERs), are being used by the southern U.S. to develop interim ESA recovery goals. The Parken model has been accepted by the CTC as an acceptable method of determining biologically based escapement goals. However, to date, the CTC has not accepted EDT as an approved method for determining biologically based escapement goals; nor have ER-based management objectives been accepted by the CTC to date. In addition, U.S. LOA monies are being spent to develop new escapement goals for several Oregon Coastal stocks.

2. Total Mortality Regimes

Progress This Past Cycle: The CTC is waiting for the Commission's instructions regarding when and how to proceed with implementation of a total mortality regime.

Anticipated Progress This Cycle: The CTC is waiting for direction and guidance from the Commission before proceeding on further TM work. If the commission decides to proceed with TM implementation or directs the CTC to proceed with further analyses the CTC will need to address two main issues. The first issue is to analyze the accuracy and reliability of the current IM data and predictive relationships as well as develop standards for any future IM estimates used for verification purposes. The second would be to develop the actual tools that the management agencies would need to use inseason to stay within their respective TM limits.

3. Model Improvements

Progress This Past Cycle: Model improvement activities began with the development of a prioritized work plan including; a) base period model calibration, b) improvements to the CWT cohort analyses database and algorithms, and c) development of a simulation model to evaluate whether the methods used by the current Chinook model or some other methods best represents the variations in the production dynamics and abundance of Chinook salmon. The AWG began work on the base period calibration in 2009 and they will meet in October, 2012 to continue its work. The subgroup focused first on achieving a successful recalibration using the current set of fisheries and stocks and subsequently making several different types of improvements to better represent stock composition, stock dynamics and the current design of fisheries. Several successful base period calibrations have been achieved during 2009-2012. However, test calibrations of the PSC Chinook Model that were performed using the outputs from the base calibrations from 2009-2011 identified issues that need further investigation. In 2012, the base period proportions of non-vulnerable Chinook cohorts (PNVs) for several fisheries were modified to better reflect the size limits. Also, many of the dubious stock composition estimates observed in the 2009-2011 base period calibrations were resolved.

Further work still needs to be done on the base period calibration before it can be used in an official PSC model calibration. In addition, work continues on improving the stratification of the model, and its ability to represent finer resolution fisheries and stocks. Improvements will seek to provide a better representation of stock composition (e.g. adding stocks, removing stocks or splitting stock groups), stock dynamics (e.g. age structure, distribution among fisheries, reproductive rates, timing of maturity for spring-run stocks, etc.), fisheries (e.g. modeling production of hatchery marked fish to represent mark selective fisheries, consideration of multiple time periods in a year, dividing fisheries into components when size limits differ), use empirical estimates of releases of legal and sub-legal Chinook, correct known problems with the SPFI estimator, and enable forecasts of pre-fishery ocean abundance to be used in the model calibration procedure. Several contracts have been completed and further contracts are being pursued to improve the CWT cohort analysis database and algorithms, to improve the accuracy of total mortality calculations in the Chinook model and cohort analysis, and to create the simulation model to evaluate various approaches to modeling the coastwide production of Chinook salmon. A design specification for an improved database design to deal with cohort analysis and model inputs and outputs was developed during the 2010-2011 cycle. A significant amount of work was done during the 2011-2012 cycle using CTC members and an outside contractor to begin building the database. Necessary modifications and design changes have been identified and implemented during the construction of the database. The database will continue to be implemented and modified as necessary during the coming cycle.

Work will continue on the data generation model (simulator) and the model evaluation framework. The AWG has taken over the primary responsibility for completing the data generation model and this work will be completed during this cycle. The design specifications for the model evaluation framework are currently being developed. Model Improvement funds will be used to secure a contract to build the model evaluation framework when the design specifications are completed.

Anticipated Progress This Cycle: Several model improvements should be addressed this cycle. A new base period calibration will be completed as a necessary precursor to other improvements (e.g. SPFI for WCVI and NBC AABM fisheries). Improvements to the CWT cohort analysis system will be completed. We expect to be using an improved cohort analysis program in the 2013 Exploitation Rate Analyses that will represent several fisheries at finer spatial and temporal scales. Modifications to the methods and the results will be reported in the annual CTC CLB & ER report. A new database will be ready for testing with the cohort analysis and model algorithms. The simulation model will be in development and analyses may be undertaken to evaluate approaches to represent Chinook salmon production and population dynamics, and alternative ISBM metric performance.

As a result of the CTC recommendation, contained in the HRI workgroup report, to replace the ratio-of-means (ROM) harvest rate indices (HRIs) for the WCVI and NBC AABM fisheries with SPFI HRIs and the subsequent acceptance of this recommendation by the commission, a modified PSC Chinook Model calibration will be performed that incorporates SPFI HRI information for the WCVI and NBC AABM fisheries. A report will be prepared that compares the results of the official 2013 PSC Model Calibration with the modified calibration. Any ramifications resulting from the change in model input data due to the replacement of ROM HRIs with SPFI HRIs for WCVI and NBC, such as potential changes to the 'Table 1' relationships in Appendix B to Annex IV, Chapter 3 will be identified.

4. Bilateral Data Standards

Progress to Date: Data standards were completed for escapement indicator stocks for use in Paragraph 13 and for the Sentinel Stock Program. Draft standards are being reviewed for other items (CTC Task 8) relevant to Paragraph 13, including data standards for management objectives based on escapements or exploitation rates, and forecasts of spawning escapement for escapement indicator stocks. The CTC reviewed a draft approach that would provide the Commission with the probability that conditions are met regarding Paragraph 13. Data standards for Total Mortality based management are being developed, however the priority of these standards depends on direction and guidance of the commission regarding the total mortality work.

Anticipated Progress This Cycle: The CTC is currently preparing a memo to the CIG that outlines the proposed approach for CTC Task 8 and to request guidance on how to proceed. Work will continue on draft data standards for the implementation of Total Mortality management, model stocks, exploitation rate indicator stocks, and fishery sampling.

5. Framework for Precautionary Management

Progress to Date: In January of 2012, the CTC presented a memo to the CIG requesting guidance on how to proceed on the PM report due to conflicting views within the CTC as to the focus and scope of the report. The CTC co-chairs met with the CIG during the PSC Annual Meeting in February 2012 and received the following guidance. The first chapter of the CTC report on precautionary management should focus on precautionary management in the context of the Pacific Salmon Treaty for Chinook salmon fisheries. The second chapter should focus on the desirable attributes of fishery regimes. The third should be a synthesis of stock status which includes some new analysis. The fourth chapter of the report should discuss uncertainty in the context of salmon management. Issues related to the current Chinook chapter will be the primary focus of the initial workgroup report, leaving alternative approaches for later reports.

Anticipated Progress This Cycle: The PM Workgroup and the CTC as a whole will proceed using the guidance from the CIG with the intent of completing a preliminary PM report sometime during 2013.

6. Individual Stock Based Management Index

Progress to Date: The CTC report TCCHINOOK(11)-4, “Methodologies To Monitor The Performance Of Individual Stock-Based Management Fisheries”, was completed in December of 2011. The report evaluated alternative metrics with respect to desirable attributes of an ISBM index. In addition, the 91-96 average was evaluated with respect to the general obligation, and pass through provisions for additional management actions taken in fisheries were evaluated. Finally, assessment of the weak stock paragraph and how it relates to ISBM performance was also included in this report. The report does not contain a comprehensive review of the alternative metrics since the evaluations were more qualitative than quantitative in nature. However, several metrics with desirable attributes were recommended for further investigation. In addition, a memo from the CTC to the CIG was delivered and discussed during the January 2012 PSC Post-Season Meeting and an additional memo from the CTC to the CIG was delivered and discussed during the February 2012 PSC Annual Meeting. These memos highlight some clarification that is needed on the interpretation of some of the language in the treaty regarding the conduct of ISBM fisheries as well as the interpretation of escapement as it relates to Chapter 3, Paragraph 13, Section 3 (c) (iv) of the 2008 Agreement.

Anticipated Progress This Cycle: The ISBM Workgroup and the CTC are waiting for guidance from the CIG regarding how to proceed on the policy items identified in the memos to the CIG from January 2012 and February 2012. If guidance is forthcoming, the CTC anticipates initiating further work on the quantitative evaluations of the ISBM metrics recommended for further investigation in TCCHINOOK(11)-4. The CTC will continue development of a program that evaluates if conditions were met for ISBM fisheries pertaining to paragraph 13(d) and 13(e) and the results will be reported in the annual CTC catch and escapement report.

7. Annual Reports

Progress This Past Cycle: The CTC typically produces two annual reports each year: the Catch and Escapement (C&E) and Calibration and Exploitation Rate (CLB&ER) reports. The 2011

C&E report was not completed in 2011 but was finalized as TCCHINOOK(12)-1 in January of 2012. Likewise, the 2011 CLB&ER report was not completed in 2011 but was finalized as TCCHINOOK(12)-2 in June of 2012. The 2012 C&E report was also finalized in June of 2012. This report contains more stocks with agency goals and estimates of optimal escapement (Smsy) than previously reported. On March 29, 2012, the CTC sent a memo to the PSC containing the pre-season abundance indices for 2012 and the post-season abundance indices for 2011 from the approved 2012 model calibration (CLB1209).

Anticipated Progress this Cycle: The 2012 CLB&ER report is nearing completion and it is anticipated that the report will be completed in October or November of 2012. The 2013 C&E (data through 2012) and 2013 CLB&ER reports will be completed in 2013. The CTC plans to include a new set of figures in the Catch and Escapement report that summarize escapement and mature run exploitation rates relative to reference points identifiable in the Chinook chapter of the 2008 Agreement.

8. Recommended Research Projects

Progress This Past Cycle: No research projects, aside from those associated with the Sentinel Stocks Program, Coded Wire Tag Improvement Program, Model Improvements, and the U.S. LOA funding, have been proposed.

Anticipated Progress This Cycle: The CTC will again provide recommendations to the PSC regarding priorities for U.S. LOA funding. In addition, the bilateral CTC will discuss the use of the third and fourth year allocation of PST funds from the 2008 Agreement to fund improvements to the PSC Chinook model in 2013 and will also provide input to the Northern and Southern Endowment Funds as requested.

9. Alternative Fishery Regulatory Measures

Progress This Past Cycle: The differential impacts of mark-selective fisheries on marked and unmarked Chinook DIT stocks were again evaluated and will be reported in the CLB&ER report.

Anticipated Progress This Cycle: The CTC will continue to evaluate and report on impacts of mark-selective fisheries on Chinook stocks in its future annual reports. CTC members will also continue to work on mark selective fishery issues with the Selective Fishery Evaluation Committee. Analytical methods have been and will continue to be discussed and developed in anticipation of incorporating the effects of mark selective fisheries on the CTC Exploitation Rate Analysis and the PSC Chinook Model calibration.

Obstacles to Completing above Bi-lateral Tasks:

The primary obstacle is the amount of time and effort that are required to complete the large number of tasks assigned to the CTC under the 2008 agreement and the technical complexity of those tasks. Although the formation of smaller CTC workgroups to address the individual assignments to the CTC streamlines the process and creates some efficiency, the necessity of assigning CTC members to multiple workgroups creates some bottlenecks. There will

undoubtedly be scheduling conflicts for workgroup meetings and CTC members will have to prioritize their workloads among the workgroups to which they belong. Other obstacles to progress could result from any policy issues that arise in the workgroups.

Outline of Other Panel / Committee Tasks or Emerging Issues:

On May 25, 2012 the CTC sent a memo to the PSC with our response to the performance review of the PSC that was conducted by 49 Solutions. The memo addressed many items that were identified that affect the CTC. The memo provided the CTC's perspective and suggestions on how to improve the functioning of the CTC and identified ways in which the PSC secretariat staff could aid the CTC in the performance of its duties. The Performance Review Implementation Group (PRIG) has indicated that it would like to meet with the panel and committee chairs during the 2013 PSC Annual Meeting (Feb. 11-15, Portland, OR) to further discuss the recommendations in the performance review and how those recommendations might impact the functioning of the panels and committees. The CTC will gladly make itself available to meet with the PRIG to discuss the recommendations contained in the PSC performance review as well as the items that were identified in the May memo from the CTC to the Commission.

Potential Issues for Commissioners:

Chinook Model Improvements

As mentioned earlier, any modifications or improvements to the PSC Chinook Model, including the updated base period calibration, have the potential to alter the time series of AIs and the historical relationship between the AIs and the landed catches of Chinook. If the historic estimates of these indices change, the CTC will need guidance from the PSC in order to maintain the historic relation between catch and the abundance indices. Changing fishery indices used to monitor harvest rate changes in AABM fisheries is an example of a model modification that could result in such a change in the historical relationship between AIs and landed catch.

Chinook Model Improvement Funds

The CTC has been delayed in initiating some model improvement contracts from the second and third years of the model improvement funds because of time commitments required to complete the annual tasks and to deal with other assignments. Although these funds are definitely needed and we have identified work that needs to be done, the CTC has a fixed amount of human resources and time to be allocated among our normal work as well as working with contractors for the model improvement contracts. The CTC is making progress and anticipates using all of the allotted funds. However, the timelines for the grants have been extended to allow the CTC ample time to use the available funds.

Proposed Meeting Dates and Draft Agendas:

Work Flow: Many of the subcommittees/workgroups, such as those for precautionary management, model improvements, and bilateral data standards will be active again in October. The CTC will focus on other tasks arising from the 2008 PST Agreement, as outlined in Appendix A to Annex IV, Chapter 3. The CTC will plan for the five year review workgroup to

become active during the coming cycle. In addition, the CTC will plan for the Attachment I-V workgroup to become active as well (which depends on completion of model improvements such as an updated base period calibration).

October 1-5, 2012. The bilateral CTC will meet in Nanaimo, BC to finish work on the 2012 CLB&ER report and to allow the CTC workgroups to make progress on their assignments related to the 2008 PST agreement.

October 22-26, 2012. The bilateral CTC AWG will meet in Seattle, WA to work on updating the base period calibration.

November 28-30, 2012. The U.S. CTC will meet in Seattle, WA to hold the annual LOA workshop. The U.S. CTC will review continuing and past LOA projects, and will develop a request for proposals for the 2013 LOA funds.

January 14-18, 2013. The bilateral CTC will meet during the PSC Post-season meetings in Vancouver, BC. The AWG will begin work on the Chinook Exploitation Rate Analysis through 2011. The CTC will begin work on the Catch and Escapement report, and other assignments as outlined in the 2008 PST Agreement. The CTC workgroups will work on their assignments as time permits.

January 28-February 1, 2013. The bilateral CTC AWG will meet in Vancouver, BC to complete the annual Chinook Exploitation Rate Analysis.

February 11-15, 2013. The bilateral CTC will meet during the PSC Annual meeting in Portland, OR. The AWG will begin work on the 2013 PSC Chinook Model calibration. The CTC will continue work on the Catch and Escapement report and will work on other workgroup assignments as time permits. The U.S. CTC will reach consensus on its LOA funding recommendations for 2013.

March 11-15, 2013. The bilateral CTC AWG will meet in Seattle, WA to continue work on the PSC Chinook Model calibration in order to produce a final calibration for the year. The CTC will report the 2013 preseason AIs and allowable catch targets for the AABM fisheries to the PSC Commissioners prior to April 1.

April 22-26, 2013. Several of the bilateral CTC workgroups will meet in Seattle, WA to continue working on Model Improvements (Base Period Calibration), Precautionary Management and Bilateral Data Standards. The C&E report will be completed by the end of April.

June 3-7, 2013. The bilateral CTC will meet in Portland, OR to draft reports on the Base Period Calibration, Bilateral Data Standards, and the CLB&ER report. The CTC will review progress on workgroup assignments to date, plan for the 5 Year Review Workgroup and the Attachment I-V workgroups to begin meeting and will assign tasks for the summer. The PM Workgroup will continue work on the Framework for Precautionary Management document.

October 7-11, 2013. The bilateral CTC will meet in Parksville, BC to complete reports on the Base Period Calibration, Model Improvements, Precautionary Management, Bilateral Data Standards and the CLB&ER analyses.

Status of Technical or Annual Reports:

The 2012 C&E report is complete. The 2012 CLB&ER report will be completed by the end of 2012 and the 2013 C&E and 2013 CLB&ER reports will be completed in 2013.

Comments:

The CTC has no additional comments at this time.

PACIFIC SALMON COMMISSION WORK PLAN
2012-2013
[Accepted by Commission on October 17, 2012]

Panel / Committee: *Transboundary Panel and Transboundary Technical Committee*

Date: *For review at the Executive Session of the Commissioners on October 16 to 18, 2012 in Vancouver, British Columbia.*

Update on Bi-lateral Tasks Assigned Under the January 2008 PSC Agreement:

The Transboundary River chapter (Chapter 1) of Annex IV was revised and agreed upon in 2008. The revised language applies to the period 2009 to 2018. The revised agreement specifies:

1) The Parties shall improve procedures for coordinated or cooperative management of the fisheries on transboundary river stocks. To this end, the Parties affirm their intent to continue to implement and refine abundance-based management regimes for Transboundary Chinook in the Taku and Stikine Rivers, sockeye in the Taku and Stikine Rivers, and coho in the Taku River. Further, the Parties affirm their intent to continue to fully develop and implement abundance-based management regimes for Chinook and sockeye in the Alsek River and coho in the Stikine River during the Chapter period.

Abundance based management (ABM) fishery regimes are currently in place for: Taku River Chinook, sockeye, and coho salmon; and Stikine River Chinook and sockeye salmon. Assessment tools have been developed by the Parties for these stocks. Harvest sharing agreements are in place for the Stikine and Taku rivers and the respective U.S. and Canadian catches are regulated according to in-season estimates of total allowable catch and the objective of achieving agreed escapement and harvest sharing goals.

Implementation of an ABM regime for the Stikine coho salmon has not yet occurred and is challenging because of the difficulty in implementing in-season abundance estimation. The 2008 revised agreement calls for implementation of an abundance based regime for Stikine coho by 2018 with review of progress on this obligation in 2014.

Substantial additional post-season stock assessment information has been obtained over the past decade for Alsek Chinook and sockeye salmon. Fishery management of these stocks by the Parties is better coordinated, but development of, and funding for, in-season assessment tools has been difficult. Both Parties strive to manage fisheries to achieve mutual escapement goals as measured at the Klukshu River weir.

2) Develop agreed MSY escapement objectives:

The Parties have agreed spawning escapement objectives for Stikine, Taku, and Klukshu Chinook salmon. The agreement calls for development of a revised escapement goal for the overall Alsek Chinook run prior to the 2014 fishing season. A United States led LOA

(Letter of Agreement) funded project was implemented in 2008 for development of an Alsek Chinook goal. The analysis resulting from this project has undergone review and approval by the Alaskan review process, the Chinook Technical Committee review and the Center for Scientific Advice Pacific (Canada) process and is awaiting formal action by Canada.

The Parties have agreed spawning escapement objectives for Stikine, Taku and Klukshu sockeye salmon. The agreement calls for an updated analysis for Alsek sockeye prior to the 2014 fishing season. An updated scientific analysis was completed and has been reviewed and approved by the Alaskan review and the Center for Scientific Advice Pacific (Canada) review process and is awaiting action by Canada.

The revised agreement calls for establishing a bilaterally agreed to maximum sustained yield goal for Taku coho salmon prior to the 2010 fishing season. Work assignments for scientific analysis were made in 2007 but progress has been slow. The Panel is hopeful that progress will be achieved on this assignment in the near-term.

3) Continue the existing joint enhancement programs designed to produce annually 100,000 returning sockeye salmon to each of the Taku and Stikine rivers.

On the Stikine River, enhanced production has contributed significantly to existing fisheries harvesting Stikine sockeye (combined catch of 44,000/year), although annual production has fallen short of the 100,000 production target in most years. Additional resources have been provided to improve the likelihood that the Tahltan egg take goal would be achieved. Taku River enhancement has under-performed and has not contributed significantly to the Parties fisheries with total combined catches of enhanced sockeye averaging less than 3,000 fish per year. Assessment programs have been conducted to better understand why Taku enhancement performance has been poor. The 2008 revised agreement calls for annual development of a Stikine Enhancement Production Plan and a Taku Enhancement Production Plan. These plans continue to be completed and have improved the review of the joint enhancement program along with a better understanding of potential benefits and user expectations.

4) Harvest sharing performance.

Revised language concerning paragraph 4 of the Agreement was agreed upon by the Panel during the February 2009 PSC meeting. Since 2009 the Panel has exchanged papers and discussed implementation of the revised procedures which has been challenging. Additionally, interest in discussing the Guideline Harvest Level for Stikine sockeye for the US subsistence fishery, has been expressed as this matter is identified as a potential issue for Commissioners.

Obstacles to Completing above Bi-lateral Tasks:

Panel deliberations on new or improved ABM regimes are dependent on continued development of improved in-season and post-season abundance estimation programs.

Significant improvement in abundance based management of sockeye and Chinook in the Alsek River requires substantial (and costly) program development for improved dependable in-season assessment of run strength. Implementation of abundance based management of Stikine coho is anticipated to be several years away and is likewise dependent upon development of dependable in-season assessment of run strength that is both technically difficult to achieve and likely relatively costly.

Considerable effort has gone into determining reasons behind the low production of enhanced Taku sockeye and adjustments have been made to the program to seek improvement. However, these efforts have not proven very successful. The egg-take target for Taku (Tatsamenie) typically has not been achieved due to escapement (adult brood stock) limitations. Stikine egg-take targets were reduced mid-season in 2012 due to lower escapements reducing the availability of brood stock. The success of this project is significantly reliant on the availability of funding via the Northern Fund. Capture of terminal sockeye in the Tuya River continues to be complicated by high water, unstable/dangerous topography, and difficult access. Notwithstanding, an experimental test fishery was executed with the goal of exploring a harvest strategy for surplus Tuya sockeye.

Aspects of implementation of Paragraph 4 need additional discussion within the Panel. Several aspects of the calculations require discussion such as: the definition of “agreed to escapement goals” and the determination of how test fishery catches should factor into the calculations.

Outline of Other Panel / Committee Tasks or Emerging Issues:

Adequate, stable, long-term, funding of assessment programs is critical to improving and/or implementing ABM regimes for Taku, Stikine, and Alsek salmon stocks. Incremental project and overall assessment program cost increases are surpassing available (on-going) resources which has resulted in challenges to achieving the assessment and enhancement program goals.

- The lack of success of the Taku enhancement program and complications associated with the Stikine enhancement program offer challenges to the Parties in reaching the enhancement goals as specified in the Annex. Challenges with securing adequate funding has hampered the ability to effectively address these matters and limited the implementation of new enhancement provisions of the agreement.

Potential Issues for Commissioners:

A request by the managers of the U.S. subsistence fishery to increase the Guideline Harvest Level for Stikine sockeye in that fishery will be discussed within the Panel process. Such a change would require an alteration of Annex language or some other process as deemed appropriate by the Commission.

Proposed Meeting Dates and Draft Agendas:

Transboundary Panel:

1. PSC post season review:

- Review of the U. S. and Canadian fisheries in 2012 in the Taku, Stikine and Alsek Rivers and resultant spawning escapements.
- Review of egg takes and other enhancement activities that took place in 2012.
- Review of enhanced production returning in 2012.
- Review of preliminary Taku and Stikine enhancement production plans.
- Numbers of fry to be outplanted into Tahltan and Tuya lakes in 2013.
- Update on Taku coho escapement goal analysis.
- Continued discussion concerning Paragraph 4 details.
- Discussion of U.S. Stikine subsistence fishery including request to increase GHF for sockeye.
- Discussion of PSC external performance review of operations (49 Solutions) – task may involve producing response to performance review implementation group.
- TBR evaluation of enhancement operations.

2. PSC Annual meeting:

- Completion of the agenda from previous meeting.
- Follow-up to questions and issues that arise during post season review.
- Agreement concerning Paragraph 4 details.
- Final Panel review of SEPP and TEPP and development of recommendations to the Parties concerning Taku and Stikine enhancement production plan.
- Northern Fund, status concerning projects funded that involve TBR.
- Information update concerning adoption of revised spawning goals (Alsek Chinook and sockeye and Taku coho).
- Information update on Chinook stock status across Alaska (*No Panel Action concerning this topic, information only*).
- Information update from Canada concerning development in the Taku and Stikine watersheds (*No Panel Action concerning this topic, information only*).
- If warranted, discussion of PSC external performance review of operations (49 Solutions) – task may involve producing response to performance review implementation group.

Transboundary Technical Committee:

1. Fall meeting: November 27-28, 2012, Whitehorse, YT

- Finalize 2012 preliminary post season report including:
 - 2012 fishery review: review catches, management actions, Treaty compliance.
 - Update and review 2012 stock assessment projects: review escapement and other stock assessment projects including GSI sampling.
 - Transboundary sockeye enhancement update:
 - Outplants;

- Enhancement assessment project update;
 - Tuya terminal harvest;
 - Eggtakes fall 2012;
 - Recommendations for 2011 outplant destinations.
 - Review and update of GSI baseline
 - Review of preseason Taku and Stikine Chinook salmon forecasts.
 - Finalize outstanding final catch and escapement reports.
 - Enhancement planning
 - SEPP and TEPP – discussion of format and preparation/review of draft outline;
 - Proposed enhancement activities for 2013 including expected production.
 - Scheduling and assignment of tasks.
 - Update on Taku coho escapement goal.
 - Update on Northern Fund process for 2013.
 - Report publication schedule
- 2. Late winter project planning meeting: March, 2013, Juneau, Alaska:**
- 2013 program planning
 - Project list for 2013 fisheries management and enhancement plan.
 - Preliminary run outlooks and management plans 2013.

3. Spring management meeting: Whitehorse – April, 2013:

- Joint Transboundary fisheries management, stock assessment and enhancement plans for 2013.

Status of Technical or Annual Reports:

Annual Catch and Escapement Reports

- *Preliminary Estimates of Transboundary River Salmon Production, Harvest and Escapement and a review of Joint Enhancement Activities in 2012 – January 2013.*
- *Estimates of Transboundary River Salmon Production, Harvest and Escapement and a review of Joint Enhancement Activities in 2008 – TCTR (12)-2.*
- *Estimates of Transboundary River Salmon Production, Harvest and Escapement and a review of Joint Enhancement Activities in 2007 – TCTR (11)-1.*

Annual Management and Enhancement Plan Reports

- *Salmon Management and Enhancement Plans for the Stikine, Taku, and Alsek Rivers, 2012 – TCTR (12)-1.*
- *Salmon Management and Enhancement Plans for the Stikine, Taku, and Alsek Rivers, 2011 – TCTR (11)-3.*

Stock Assessment Reports

- *Stock Compositions of Sockeye Salmon Catches in Southeast Alaska District 106 and 108 Gillnet Fisheries, 1996-2000, Estimated with Scale Pattern Analysis. February 2011. TCTR(11)-2*
- *Contribution of Alaskan, Canadian, and transboundary sockeye salmon stocks to catches in Southeast Alaska purse seine and gillnet fisheries, Districts 1-8, based on scale pattern analysis, 2006. Alaska Department of Fish and Game, Fishery Data Series No. 11-38, Anchorage.*

Comments: None.

PACIFIC SALMON COMMISSION
SELECTIVE FISHERY EVALUATION COMMITTEE WORK PLAN
October 2012 – September 2013
[Accepted by Commission on October 17, 2012]

Panel / Committee:

Selective Fishery Evaluation Committee (SFEC).
SFEC Reports to the PSC Commissioners.
October 16-18 2012, (Executive Session)

Update on Bi-lateral Tasks:

The PSC established the SFEC to assess impacts of mass marking and mark-selective fisheries on the viability of the CWT system. The SFEC has three components: (1) an Oversight Committee, comprised principally of the Co-Chairs of the PSC SFEC, Coho, Chinook, and Data Sharing Committees; (2) an Analytical Work Group (SFEC AWG) which is responsible for developing methods and conducting analyses of impacts of mass marking and mark-selective fisheries on the viability of the CWT program; and (3) a Regional Coordination Work Group (SFEC RCWG) which coordinates information sharing on mass marking and regional sampling programs, including electronic tag detection.

One of the main tasks of the SFEC is to review the proposals for mass marking (MM) and mark selective fisheries (MSFs) that are submitted annually to the PSC by the agencies conducting these activities (Table 1). The annual report summarizing the MM and MSF activities proposed for 2010 was completed and submitted to the PSC. Completion of the reports summarizing activities proposed for 2011 and 2012 are in preparation.

Letter to agencies requesting the completion of proposal templates for MM and MSF activities planned for 2013 will soon be distributed by the PSC Secretariat. As in the past two years, agencies will have the option to provide MSF proposals in either a Word file format or in an Excel file format. Agencies have been requested to submit proposals to the PSC Secretariat by Nov. 1. The full bilateral SFEC will meet in December to review and summarize the proposed activities in the annual report for the PSC.

A meeting of the SFEC has been scheduled for early December 2012. The main objective of this meeting is to review MM and MSF proposals and continue working on the 'Lessons Learned with Mass Marking and Mark Selective Fisheries' report.

Obstacles to Completing above Bi-lateral Tasks:

Workloads of SFEC Members: Efforts of the SFEC have been affected due to workloads and other priorities that have constrained the ability of members of the SFEC to complete assignments.

Proposals: In 2011, proposals for MM and MSFs were not submitted by the requested deadline of November 1, but were received for review by the SFEC meeting convened in December. Delays in submission of the proposals continue to hinder the ability of the SFEC to complete its reviews during the short window available to prepare the annual report summarizing the MM and MSF activities and provide timely commentary to agencies.

Post-Season Reports: Post-season reports on MSFs are required for each MSF prosecuted. These reports are to be submitted in the form of three tables (Appendix I). The first two tables should be submitted by the PSC annual post-season meeting following the year of the fishery. The SFEC recommended that these tables with post-season information be included in the annual report submitted to the PSC by the US and Canada for the post-season meeting in January. This recommendation was intended to consolidate and simplify reporting requirement by agencies.

Problems continue with reporting post-season information on sampling methods and conduct of MSFs. Although post-season reporting requirements for MSFs that have been prosecuted have not been fulfilled, some progress was made in securing some of the requested data through efforts of SFEC members. The SFEC is aware that work was in progress to provide the post-season information and data but the work was not completed in time for inclusion in the annual reports to the PSC by Canada and the US. The SFEC recommends that agencies include post-season report tables 1, 2 and 3 for any year or all years up to 2011 in the 2012 reports by each country.

Prosecution of Mixed-bag Regulations: Proposals for Chinook and Coho MSFs from all agencies include various forms of mixed-bag regulations (e.g., daily bag of 2 Coho, 1 of which can be unmarked). Some of these are more complex than others, but methods and data required to estimate impacts on marked and unmarked fish under mixed bag regulations are generally lacking. In addition, catch sampling and stock monitoring programs are not designed to collect data required to evaluate impacts of the types of complex MSF regulations being employed. A description of the estimation methods being employed or envisioned to estimate MSF impacts under mixed-bas regulations will be requested from agencies. The increasing frequency of mixed-bag regulations adds uncertainty to estimates of MSF impacts on unmarked fish.

Travel budget constraints: The SFEC is aware of the uncertainty surrounding travel budget constraints and the ability to convene in-person meetings of the committee and its work groups. The proposed schedule below reflects our intent to perform as much of the MM and MSF review, analyses and report development as possible via independent evaluation, emails, and conference calls. The number of in-person meetings has been reduced to the minimum necessary for the tasks assigned to the SFEC by the PSC.

Outline of Other Panel / Committee Tasks or Emerging Issues:

The CTC and CoTC are incorporating estimates of fishery impacts on unmarked wild stocks in the annual analyses. Review of recoveries of Chinook DIT releases in non-selective and selective fisheries and the escapements and their utility for estimation of impacts on unmarked fish in MSFs is in progress by the SFEC-AWG. Results of these investigations will be summarized in the annual report by the CTC on the annual exploitation rate analysis and Chinook Model calibration. This work is of high priority.

The CTC has requested assistance from SFEC members regarding incorporation of MSF algorithms in the annual exploitation rate analysis and the annual Coastwide Chinook Model calibration. The required modifications are expected to occur in the next few years as the CTC-AWG proceeds with identified improvements to the structure and function of the computer programs currently being used. The priority to incorporate algorithms and data for MSFs may increase if recreational and commercial MSFs for Chinook continue to expand in WA and BC coastal areas.

Potential Issues for Commissioners:

Timely and accurate information via post-season reports on prosecuted MSFs is needed by the SFEC to assess the impacts of MM and MSFs on the CWT system. Little can be done without the post-season information from MSFs but to date, workload and other agency issues have resulted in few submissions. No post-season reports have been submitted within the year following the prosecution of MSFs. Nonetheless, contacts with at least some agencies indicate that new reporting systems under development should be able to more easily provide the summary information requested in the SFEC's MSF post-season report.

Status of Reports:

Technical or Annual Reports. Reports reviewing MM and MSF proposals for 2011 and 2012 activities are near completion and will be submitted to the PSC for publication prior to the January meeting. A report on Coho DIT analysis for brood years 1998-2005 (up to fishery year 2008) is in review. The analysis for stocks from WA is near complete and analysis for stocks from other jurisdictions is in progress. An evaluation of the utility of the DIT system for Chinook salmon is under review. A report documenting the actual MSFs conducted, MM releases, and DIT groups, from 2005-2009 is in final draft and is now available on the PSC web site.

Lessons Learned Report. During its October 2011 meeting, SFEC developed an initial detailed outline of the sections and contents of a report concerning 'Lessons Learned with Mass Marking and Mark Selective Fisheries' (hereafter, referred to as *Lessons Learned Report*). SFEC members were assigned responsibility for certain sections of the report, based on their expertise and experience by topic. In addition, an editorial oversight committee was created to focus on overall consistency, tone, and clarity of report. The editorial committee would also coordinate contributions of content from different SFEC members to insert into the overall report.

During the PSC's January 2012 Post-season Meeting, SFEC met again and made further progress on the *Lessons Learned Report*. The report coordinators (i.e., editorial committee) set up a spreadsheet tracking system for each section of the report, specifying the SFEC member responsible, section/sub-section titles, and a short description of the content. The report coordinators then sent out emails to each SFEC member to solicit contributions for their assigned sections by the specified deadline.

Content received from SFEC members thus far includes draft text developed for the following sections of the *Lessons Learned Report*: *Introduction*; *General Issues* (i.e., MM and MSF require more complex and flexible frameworks for reporting and storing data; coordination and communication among agencies is necessary); *Mass Marking* (i.e., MM

is an effective way to distinguish hatchery and wild fish in fisheries and escapements and creates opportunities for other types of fish tracking experiments), and the *Reporting and Analysis* (i.e., Budget pressures are continually increasing; MM and MSF place higher demands of reporting of CWT releases, catch-related data and CWT recovery data). During the December 2012 SFEC meeting, SFEC plans to continue making progress on detailed content needed for all sections described in the *Lessons Learned Report* outline.

Comments:

Some changes to the SFEC membership have occurred in the past year. Michelle Varney has been added as a representative for Oregon.

Proposed SFEC Meeting Dates and Draft Agendas:

When	Who	Location	Purpose
Dec 3-5, 2012	SFEC RCWG, AWG, and Oversight	Seattle, Washington, USA.	Review annual proposals for MM and MSFs submitted by agencies. Request clarifications from agencies as needed. Continue work on Lessons Learned Report. Prepare summary report for PSC Commissioners. Review and revise format and content of post-season MSF reports, as necessary.
Jan. 14-18, 2013 (PSC Post-Season Meeting)	SFEC RCWG, AWG, and Oversight	Vancouver, BC	Full SFEC review and completion of AWG and RCWG drafts of 2013 review report. SFEC Co-chairs provide summary to PSC Commissioners on agency proposals for 2013 MM and MSF. Full SFEC review of status of MM and MSF post-season reports submitted by agencies.
Feb. 11-15, 2013 (PSC Annual Meeting)	SFEC AWG and Oversight	Portland, OR	AWG completes 2012 review report and submits to PSC. SFEC Co-chairs identify to PSC Commissioners any issues or concerns regarding agency proposals for 2013 MM and MSF.
February – May, 2013	SFEC AWG	Nanaimo, BC, and Olympia, Washington, USA.	Work on “Lessons Learned” report for the PSC. Finalize SFEC Coho and Chinook DIT reports.

Table 1. Status of annual pre-season proposals for mark selective fisheries (MSFs).

Fishery, location, target stock by Agency¹	Proposal ID²	Most Recent MSF Proposal³	Years with MSF since 2003⁴
DFO			
Commercial, Southern BC, on hatchery coho	MSF-FOC-05	2012	2005-2011
Sport, Southern BC, on hatchery coho	MSF-FOC-02	2012	2003-2011
Sport, Lower Fraser freshwater, on hatchery coho	MSF-FOC-06	2012	2003-2011
FSC, Lower Fraser freshwater, on hatchery coho	MSF-FOC-03	2012	2006-2011
Sport, Strait of Juan de Fuca, on hatchery Chinook	MSF-FOC-07	2012	2009-2011
ODFW			
Sport, Willamette R, on hatchery Willamette spring Chinook	MSF-ODFW-01	2012	2003-2011
Sport, Oregon Coast, on hatchery fall Chinook salmon	MSF-ODFW-02	2012	2008-2011
Sport, Oregon coast, on hatchery coho	MSF-ODFW-03	2012	2003-2011
WDFW			
Sport, Washington coast, on hatchery coho	MSF-WDFW-06	2012	2003-2011
Commercial, WA areas 1-4, on hatchery coho	MSF-WDFW-15	2012	2003-2011
Sport, Puget Sound, on hatchery coho	MSF-WDFW-07	2012	2003-2011
Sport, Nooksack River, hatchery coho	MSF-WDFW-18	2012	2003-2011
Sport summer, WA areas 5-13, on hatchery Chinook ⁵	MSF-WDFW-35	2012	2003-2011 ⁶
Sport winter, WA areas 5-13, on hatchery Chinook ⁷	MSF-WDFW-36	2012	2005-2011 ⁸
Sport, Nooksack R, on hatchery Chinook	MSF-WDFW-13	2012	2004-2011
Sport, Skykomish R, on hatchery Chinook	MSF-WDFW-01	2012	2003-2011
Sport, Carbon & Puyallup R, on hatchery Chinook	MSF-WDFW-09	2012	2003-2011
Sport, Upper Skagit R on hatchery Chinook, summer	MSF-WDFW-12	2012	2005-2011
Sport, Nisqually R on hatchery Chinook, Jul-Jan	MSF-WDFW-14	2012	2005-2011
Sport, Skokomish River, hatchery Chinook	MSF-WDFW-20	2012	2010-2011
Sport, WA Coast Area 1-4, hatchery fall Chinook	MSF-WDFW-19	2012	2010-2011
Sport, L Snake River, hatchery fall Chinook	MSF-WDFW-05	2012	2008-2011
Sport, Quillayute River system, hatchery spring/summer Chinook	MSF-WDFW-32	2012	2003-2011

Fishery, location, target stock by Agency¹	Proposal ID²	Most Recent MSF Proposal³	Years with MSF since 2003⁴
Sport, Snake River, spring Chinook	MSF-WDFW-28	2012	2010-2011
Sport, Hoh River, hatchery spring Chinook	MSF-WDFW-33	2012	2008-2011
Sport, Willapa Bay, Marine Area 2.1, Coho	MSF-WDFW-29	2012	2010-2011
Sport, Willapa Bay, Marine Area 2.1, Chinook	MSF-WDFW-26	2012	2010-2011
Sport, Willapa Bay, tributaries, Chinook	MSF-WDFW-27	2012	2010-2011
Sport, Willapa Bay, tributaries, Coho	MSF-WDFW-22	2012	2003-2011
Commercial, Willapa Bay, Chinook	MSF-WDFW-25	2012	2010-2011
Sport, Quillayute River, Coho	MSF-WDFW-31	2012	2003-2011
Sport, Grays Harbor, Marine Area 2.2, Coho	MSF-WDFW-23	2012	2007-2011
Sport, Grays Harbor, tributaries, Coho	MSF-WDFW-24	2012	2003-2011
Commercial, Grays Harbor, Marine Area 2C, Coho	MSF-WDFW-30	2012	2009-2011
Sport, Yakima River, spring Chinook	MSF-WDFW-03	2012	2004,2008,2010-2011
WDFW & ODFW (jointly for Columbia River)			
Sport, Lower Columbia R on hatchery coho (since 1999)	MSF-OD&WDFW-04	2012	2003-2011
Sport, Columbia R, on hatchery Columbia summer Chinook	MSF-OD&WDFW-02	2012	2003-2011
Sport, Lower Columbia R, on hatchery spring Chinook	MSF-OD&WDFW-01	2012	2003-2011
Commercial, Lower Columbia R, on hatchery spring Chinook (large and tangle net)	MSF-OD&WDFW-03	2012	2003-2011
Sport, Columbia R., on hatchery fall Chinook	MSF-OD&WDFW-05	2012	2011
IDFG			
Sport, Snake River, on fall Chinook	MSF-IDFG-04	2012	2009-2011

1. Fishery, location, target stock for each Agency: Name of fishery, its location, and which stock is targeted for under mark selective fishery regulations.
2. Proposal ID: The proposal number assigned by the PSC secretariat on receipt of preseason MSF proposal from agency. This ID number remains the same for MSFs that are conducted with little change every year.

3. Most recent MSF proposal: Most recent year that a proposal was received from the agency for this particular MSF. “Never” indicates that the SFEC has never received a proposal for this MSF.
4. Years with MSF: This indicates the years that each MSF actually occurred and, therefore, a post-season report is required to be submitted to SFEC. Years followed by a question mark (?) indicate that SFEC is not certain if this MSF occurred in that year.
5. Proposals MSF-WDFW-02 (Areas 5 and 6) and MSF-WDFW-11 (Areas 9, 10, 11 and 13) were both incorporated into MSF-WDFW-35 in 2012. This proposal covers all summer sport MSFs for Puget Sound.
6. Actual implementation of summer MSFs for Chinook in Puget Sound was step-wise over time, with areas added over the years as follows: Areas 5 and 6 summer sport MSF began in 2003; Areas 9, 10, 11, and 13 began in summer 2007. Each of these MSFs has continued each summer thereafter.
7. Proposal MSF-WDFW-36 in 2012 covers all sport MSF areas of Puget Sound (Areas 5-13) during the winter time period (October-April); whereas, in previous years (2005-2011) of WDFW’s equivalent winter sport MSF proposal for Puget Sound (proposal number: MSF-WDFW-16), fewer marine areas were included – i.e., limited to areas 6, 7, 8-1, 8-2, 9 & 10.
8. Actual implementation of winter MSFs for Chinook in Puget Sound was step-wise over time, with areas added over the years as follows: Areas 8-1 and 8-2 winter sport MSF began in October 2005-April 2006; Area 10 began in December 2007-January 2008; Area 7 began in February 2008; and Area 9 began in January 16-April 15, 2008. Each of these MSFs has continued each winter thereafter.

PACIFIC SALMON COMMISSION WORK PLAN
2012-2013
[Accepted by Commission on October 17, 2012]

Panel / Committee:

Data Sharing Committee and its subcommittee Data Standards Work Group.

Data Sharing, with input from other technical committees, defines changes needed in the CWT database and additional verification rules that would improve the integrity of the database; and then Data Standards determines how to do this and does the work of modifying the database and verification process.

Data Sharing reports directly to the Commissioners.

Date: This work plan will be presented to the commission during its executive meeting October 16 -- 18, 2012 in Vancouver, BC.

Update on Bi-lateral Tasks Assigned Under Current PSC Agreement:

There were no specific bi-lateral tasks for this committee under the 1999 or 2008 PSC agreement other than the general agreement to maintain and make improvements to the CWT system. Data Sharing and its workgroup, Data Standards, have, continually over the years, been maintaining and updating the CWT database.

Following the work of the CWT Expert Panel and that of the CWT Workgroup during the last cycle, we understand that the Commissioners want Data Sharing to examine issues pertaining to code-wire-tag collection and data storage (i.e., database). Data Sharing liaises with the Chinook Technical Committee, Selective Fishery Evaluation Committee, and Coho Technical Committee to improve the CWT data system to better support their analytical work.

The Data Sharing Committee will contribute to the PSC Performance Review process as requested by the Commission.

Obstacles to Completing above Bi-lateral Tasks:

Progress on addressing data sharing issues is not a high priority for some members with other competing PSC tasks.

Outline of Other Panel / Committee Tasks or Emerging Issues:

Issues of quality control for the CWT database are important following the findings and recommendations of the PSC CWT Expert Panel Review 2005 and the 2008 report by the CWT Workgroup. Data Sharing is improving quality control methods for the CWT database, which contains the data associated with CWT analyses for catch, fishing effort, and selective fisheries (e.g. mass marking, double index tagging (DIT), and catch sampling).

Mass marking, DIT, and selective fisheries have also introduced the need for new information to be included in the database in order to facilitate analyses by the PSC committees (e.g., Chinook and coho selective fishery evaluation). This has involved changing sampling methods as well as introducing new fields into the database and there is an ongoing need to ensure data quality achieves specific data standards. Data Sharing works with the Selective Fisheries Evaluation Committee, Chinook Technical Committee, and the Coho Technical Committee on this.

Potential Issues for Commissioners: None

Proposed Meeting Dates and Draft Agendas:

When	Who	Location	Purpose
October 2012	Data Standards	Vancouver, BC	Address quality control and database needs not currently supported by CWT database. Review updates needed for CWT database. Work on upgrade as required.
Summer	Data Sharing	By teleconference (e.g. GOTO Meeting)	Review updates needed for CWT database to address quality control and completeness of existing database (e.g. releases, recoveries, catch/sample). Discuss with Data Standards advice from other technical committees Prioritize work plan and data system improvements to address issues identified by technical committees and the 2008 CWT Workgroup report Coordinate with CoTC, CTC, SFEC regarding mark selective fishery CWT data coordination and reporting issues.
Summer	Data Standards	By email	Work on CWT data system improvements identified in work plan and any tasks identified by Data Sharing at their meeting.

Status of Technical or Annual Reports:

We have an outline for a report on current status of databases and emerging issues related to coded-wire tags and selective fisheries.

Comments:

No additional comments.

PACIFIC SALMON COMMISSION WORK PLAN
2012-2013
[Accepted by Commission on October 17, 2012]

Panel / Committee: Sentinel Stock Committee (SSC) of the Sentinel Stock Program reports directly to the Commission.

Date: This work plan will be presented to the commission during its executive meeting October 16 -- 18, 2012 in Vancouver, BC.

Update on Bi-lateral Tasks Assigned Under Current PSC Agreement: The sole task assigned to the SSC through the Sentinel Stock Program is to implement through the respective domestic management authorities a five-year research program. The purpose of which is to improve estimates of escapements of selected Chinook populations in British Columbia (along the north coast, along the west coast of Vancouver Island, and in the Fraser River), in the Puget Sound of Washington State, and along the north coast of Oregon. In FY2012 the SSC recommended and the commission funded 13 projects to estimate escapements for stocks in the Nass, Skeena (two projects), South Thompson, Chilko, Burman, Harrison, Snohomish, Stillaguamish, Green, Siletz, and Nehalem rivers and to develop a statistical framework for escapement estimation in the WCVI.

The Sentinel Stocks Committee will contribute to the PSC Performance Review process as requested by the Commission.

Obstacles to Completing above Bi-lateral Tasks: It has been challenging to develop escapement estimates for two of three rivers in the WCVI. The obstacles include factors that affect capturing Chinook salmon, either for marking, collecting samples, or examining fish for marks. These factors include large variations in river discharge, inefficient sampling effort, low fish abundance, etc. Development of a statistical framework funded in FY2012 should alleviate some of these problems. Previous difficulties with estimating escapement in streams around Puget Sound have largely been resolved through new approaches involving mark-recapture studies linked with genetic parental based tagging.

Outline of Other Panel / Committee Tasks or Emerging Issues: None

Potential Issues for Commissioners: The upcoming year 2013 is potentially the final year of the program. Funding in previous years has averaged less than \$2M, and funding may be available for some projects in 2014 (as per previous communications to the Commission).

Proposed Meeting Dates and Draft Agendas: The SSC will meet in Seattle from November 27 to 28 to review progress by projects funded in 2012 and to develop a request for proposals for work in 2013. The SSC will meet in Vancouver over three days during the week of January 28 to review proposals for 2013 and to develop a list of

recommended projects. The SSC plans to present the list of recommended proposals to the commission during its annual meeting in Portland, OR 11-15 February, 2013.

Status of Technical or Annual Reports: All project reports for 2011 are summarized in the 2011 Annual Report of Catches and Escapements, TCCHINOOK (12)-3.

Comments: None

PACIFIC SALMON COMMISSION WORK PLAN
2012-2013
[Commission decision postponed until January 2013]

Panel / Committee:

Habitat and Restoration Technical Committee (HRTC) reports to the Commission.

Date: October 16-18, 2012, PSC Executive Session.

Update on Bi-lateral Tasks Assigned Under Current PSC Agreement:

The HRTC held two working group meetings in addition to the Post Season meeting in 2012.

During the Post Season meeting, the HRTC developed the framework for this year's technical report that provides guidance on habitat issues including, habitat status and trends for stocks of high conservation concern to the Southern Endowment Fund (SEF), assessment protocols and approaches for restoration project effectiveness monitoring; a Northwest Pacific habitat restoration practitioners directory and a map based searchable inventory of SEF and NEF funded restoration projects.

At the May and September meetings the committee worked on various pieces of the technical report and met with representatives from PNWAMP, BC Hydro Evaluation Plus, the Pacific Salmon Foundation, Okanogan Nation Alliance and other programs and organizations to gain insights into other relevant programs, approaches. These meetings enhance the networking and information exchange between the PSC and other interests involved in habitat and restoration activities in the PST area of interest

In 2012-13 the HRTC will continue to focus on the following two objectives outlined in the 2011-12 workplan, as they apply to stocks of interest to the PSC:

1. Foster effective sharing of information on habitat restoration initiatives, activities and practices, and to promote the establishment of a network of individuals to exchange information and knowledge.
2. Upon request, provide strategic advice to the Commission and the Northern and Southern Fund Committees on emerging habitat issues.

Elements of 2012-13 HRTC Workplan

I. Information exchange

In 2012-13 the HRTC proposes to meet with (and discuss) the information and guidance provided in this year's Technical Report with the Commission, Fund Committees and others (as requested). Presentations may be made on any of the following items included in the HRTC's Technical Report:

- The new GIS based restoration project inventory product.

- The effective design, assessment and monitoring of habitat restoration projects.
- Habitat status and trends assessments of two stocks of conservation concern to the SEF.
- The checklist of components for effective habitat restoration funding proposals.
- The habitat restoration practitioner's directory.

Update products outlined in the Technical Report as required. This may include:

- Updating and revising contact information in the practitioners guide,
- Conducting additional habitat status and trends assessments for other stocks of interest.
- Incorporating better habitat project location and summary information provided in EF submissions into GIS based restoration project inventory.

II. Strategic Advice and Support to the PSC and Endowment Funds

Provide support for review of habitat and restoration submissions to the EFs (as requested).

Direct restoration practitioners to EF Committee's RFPs and the checklist of considerations for developing effective EF habitat proposals.

Review and evaluate the draft NOAA NWFSC 2013 report (when available), on Puget Sound Chinook habitat status and trends and stand prepared to provide advice to the SEF on potential habitat restoration projects.

Scope out a process to establish a habitat dimension (i.e., non-fishing constraints on production) for the prioritization matrix of the SEF Strategic Plan

Work with NEF to identify one or two stocks of conservation concern for which habitat status and trends information could be compiled.

III. Supplemental Issue - Respond to PRIG questions

Per Secretariat instruction, the HRTC is including this element in the workplan. The HRTC anticipates some time will be devoted toward responding to questions from the Performance Review Implementation Group (PRIG).

Obstacles to Completing above Bi-lateral Tasks:

- Changing composition and representation on the HRTC. The following new vacancies will need to be filled:
 - Canadian co-chair stepping down December 31, 2012 (early retirement),
 - Federal representative from Alaska is no longer employed (NOAA contract not renewed),
 - NW Tribes representative stepping down December 31, 2012 (workload issue).

- Vacancy from Washington State continues to be an issue and a hindrance to the HRTC.
- Lack of data/information on habitat indicators required to conduct habitat status or trends analyses for many stocks of conservation concern and fishery relevance to the EFs, particularly to the NEF.

The HRTC is pleased to report that it now has a representative from the Province of BC.

Outline of Other Panel / Committee Tasks or Emerging Issues:

- Issues may emerge as the HRTC develops information sharing projects and works with the Fund Committees to clarify support needs.

Potential Issues for Commissioners:

- As mentioned above, the HRTC will be down four members for an unknown length of time. The duration of these vacancies will impact the HRTC's ability to conduct work outlined in this plan, and impact the development of new initiatives for the PSC and EFs.

Proposed Meeting Dates and Draft Agendas:

- Jan Post Season meeting (Vancouver) Jan 14-18, 2013
 - Networking and Information Sharing
 - Upon request, meet with and update the Commission or Endowment Fund Committees
 - Liaise with Panels and other Committees
 - Conduct work detailed above
- The HRTC has an interest in meeting with Endowment Fund Committees to discuss next steps for habitat products of potential benefit to the committees. Approved meeting(s) may require travel of three members: the Alaskan representative and two co-chairs.
- HRTC will meet in September, 2013 – Bellingham, Washington. The meeting will be a working session dedicated to completing tasks described above, discussing emerging issues, and to identifying elements for the FY 2014 workplan.
- Conference/webinar meeting in April/May 2013 (no cost).
- Additional conference calls as required (no cost).

Status of Technical or Annual Reports:

Draft technical report is completed and will be edited by DFO contractor over the next 2 weeks. Final technical report will be available at the end of October.

Comments: None.

PACIFIC SALMON COMMISSION WORK PLAN
2012-2013

[Approved by the Pacific Salmon Commission October 17, 2012]

Panel / Committee: Committee on Scientific Cooperation (CSC)

Date: October 16-18, 2012

Update on Bi-lateral Tasks Assigned Under Current PSC Agreement:

A newly reconstituted and resurrected Committee on Scientific Cooperation (US: David Hankin (Chair) and Alex Wertheimer; Canada: Laura Richards, Mark Saunders) was established and charged with operation under a newly modified Terms of Reference adopted on February 15, 2012. No specific tasks are currently assigned to the CSC, but the CSC will be actively soliciting input and direction at the January meeting.

Obstacles to Completing above Bi-lateral Tasks: N/A

Outline of Other Panel / Committee Tasks or Emerging Issues:

The CSC reiterates its previously expressed willingness to provide follow-up on previous projects with which the CSC had been actively involved, including the Coded Wire Tag Expert Panel Report and the PSC response to issues in the report; the PSC-sponsored workshop on use of genetics in management of ocean salmon fisheries; and the Fraser Sockeye Report, including the recommended research plan suggested by the expert panel.

Members of the CSC met at the February 2012 meeting to discuss the future role of the CSC generally and to specifically discuss the desirability of formalizing the process by which the CSC identifies problems or issues that seem most worthy of attention. Discussions with co-chairs of various PSC technical committees indicate that there is broad support for an annual process whereby the CSC solicits input from PSC technical committee co-chairs to assist in identification of important issues and there seemed agreement that the January meeting would be the most productive time to accomplish this. Details of just how the CSC might most efficiently meet with co-chairs will be worked out in conference calls this fall, but we intend to initiate this kind of process at the January 2013 meeting.

Potential Issues for Commissioners: N/A

Proposed Meeting Dates and Draft Agendas:

Some CSC representatives will attend the post-season and annual meetings. Other meetings can be convened inter-sessionally by teleconference as required.

Status of Technical or Annual Reports:

NA

Comments: