Executive Secretary's Summary of Decisions
2013 Fall Meeting of the Pacific Salmon Commission
October 22-24, 2013; Ketchikan, Alaska

The Pacific Salmon Commission held its 2013 Fall Meeting from October 22-24 in Ketchikan, Alaska at the Cape Fox Lodge and discussed a number of topics (see attached agenda).
The Commission AGREED:

1. The minutes from the 28th Annual Meeting (February 2013; Portland, OR) are approved with edits as provided.
2. The Administrative Working Group on bylaws review will highlight the suggested amendments that are substantive changes from the existing bylaws, and the Commission will revisit those during the January 2014 post-season meeting.
3. The Commission accepts the recommendation from the Chinook Interface Group (CIG) regarding Chinook Technical Committee (CTC) work plan priorities, and will instruct the CTC to a) complete Tasks 1 and 2 by the fall of 2014 and b) address other tasks as long this does not impede completion of the first two. The Commission notes that the five-year review of the Chinook conservation program articulated in Annex IV, Chapter 3 will not be completed on schedule.
4. The Executive Secretary will identify those capital investments that will generate long-term savings for the Commission, and work with the Standing Committee on Finance and Administration (F&A Committee) and others to identify appropriate funding for them.
5. The infrastructure and software needed for SharePoint work platforms is a key priority for implementing the Pacific Salmon Treaty, and the Executive Secretary should explore funding for these with the F&A Committee and possibly through proposals to the Northern and Southern Fund Committees.
6. There is established an Interim Advisory Committee to identify questions and issues for the Commission to consider in its strategic planning beginning in February 2014;
7. Correspondence will be sent to the co-chairs of all Commission Panels and Committees asking them to identify near-term reductions in their meeting schedule that will generate savings for national sections while not impeding work plan completion.
8. Work Plans of the Commission Panels and Committees are approved as submitted, noting the specific guidance regarding Chinook Technical Committee priorities and additional input on the Habitat and Restoration Technical Committee from the U.S. Section by February 2014 and noting that Work Plans may be modified in conjunction with near-term meeting reductions.
9. Amendments to Annex IV, Chapter 1, paragraph 4 should not occur in conjunction with amendments to Annex IV, Chapter 4 in 2014, and the guidance adopted in February 2009 for implementation of transboundary river fisheries under Annex IV, Chapter 1 shall remain in force until superseded by Treaty amendment or subsequent Commission decisions.
10. Past and future minutes of Commission meetings not held in executive session will be made available to the public upon request, and all meeting summaries will continue to be posted on the Commission website. Minutes of the International Pacific Salmon Fisheries Commission will remain unavailable for public distribution consistent with IPSFC practice.

ATTENDANCE
PACIFIC SALMON COMMISSION
FALL MEETING
OCTOBER 22-24, 2013
CAPE FOX LODGE, KETCHIKAN, AK

COMMISSIONERS

CANADA	UNITED STATES
S. Farlinger (Chair)	D. Bedford (Vice-Chair)
P. Macgillivray	R. Allen
J. McCulloch	P. Anderson
M. Ned	W. Auger
B. Riddell	R. Elicker
P. Sprout	M. Oatman

PACIFIC SALMON COMMISSION FALL MEETING
OCTOBER 22-24, 2013
CAPE FOX LODGE, KETCHIKAN, AK

ATTENDANT DOCUMENTS

1. Draft Agenda
2. Summary of Recordkeeping and Public Access to Meeting Records in North American Regional Fisheries Management/Science Organizations
3. Transboundary Panel and Transboundary Technical Committee Workplan, 2013-2014
4. Northern Panel and Northern Boundary Technical Committee Workplan, 2013-2014
5. Fraser River Panel and Fraser River Technical Committee Workplan, 2013-2014
6. Southern Panel, Coho Technical Committee and Chum Technical Committee Workplan, 2013-2014
7. Selective Fishery Evaluation Committee Workplan, 2013-2014
8. Chinook Technical Committee Workplan, 2013-2014
9. Data Sharing Technical Committee and Data Standards Work Group Workplan, 2013-2014
10. Committee on Scientific Cooperation Workplan, 2013-2014
11. Sentinel Stocks Committee Workplan, 2013-2014
12. Coded Wire Tag Implementation Team Workplan, 2013-2014
13. Progress Report for Projects Funded through the Sentinel Stocks Program 2013
14. Recommendation to the Commission concerning Extension of the Sentinel Stocks Program
15. Pacific Salmon Commission Slate of Officers for 2013/2014

Draft Agenda

Pacific Salmon Commission
Fall Meeting

October 22-24, 2013
Cape Fox Lodge
Ketchikan, Alaska

1. Adoption of Agenda and Introductions
   - Introduction of new Commissioners

2. Approval of Minutes
   - February 11-15, 2013

3. Executive Secretary's Report

4. Action Items Pending
   - Update on Annex IV, Chapter 4 renewal
   - Hydroacoustics review update, as needed*
   - Operational Plan for Secretariat*
   - Policy on public release of minutes, practices in other organizations
   - Review of "special issue" committees*
   - Update on bylaws review*
   - Report on Secretariat support for CTC*

5. Reports from Panels and Committees
   - Presentation of annual work plans to reflect obligations and assignments
   - Adoption of Instructions to Panels and Committees
   - Guidance for the 2014 Sentinel Stock Committee RFP in December 2013

6. Other Business
   - National sections' budgeting approach for 2013/2014 meeting cycle and beyond

* Agreed action item from Performance Review Implementation Group report (February 2013)

Summary of Record Keeping and Public Access to Meeting Records
in North American Regional Fisheries Management/Science Organizations

October 9, 2013

	Meeting record details	**Minute takers/ support**	**Public access to minutes**
Inter-American Tropical Tuna Commission IATTC	Minutes	Secretariat staff takes minutes assisted by recordings of meetings	Published online
North Pacific Anadromous Fish Commission NPAFC	Minutes	Secretariat staff (with assistance fr. committee member for some committees)	Commission delegates only
Great Lakes Fisheries Commission GLFC	Minutes	Secretariat staff	Public access at office only. May consider publishing online if need arises.
North Atlantic Fisheries Organization NAFO	Minutes/ reports	Secretariat staff	Initially restricted for members only. Once reports adopted, published annually in Meeting Proceedings book and available to the public.

North Pacific Marine Science Organization PICES	Summary reports (no minutes)	Executive Secretary (Governing Council, F&A) Deputy Executive Secretary (Science Board) Others committees/ working groups produce their own reports	Summary reports for all groups become part of Annual Report - available on website
International Pacific Halibut Commission IPHC	Minutes and webinar recordings for most types of meetings	Secretariat staff	Audio recordings and webinars of sessions posted on website and YouTube channel (excluding F&A and Executive sessions)

PACIFIC SALMON COMMISSION WORK PLAN
2013-2014

Panel / Committee:
Transboundary Rivers Panel (reporting to the Pacific Salmon Commission)
Transboundary Technical Committee (reporting to the Transboundary Rivers Panel)

Date: *For review at the Executive Session of the Commissioners on October 22 to 24, 2013 (in Ketchikan, Alaska), to be presented at the Post-Season Meeting on January 13 – 17, 2014 (in Portland, Oregon), and reported on at the Annual Meeting on February 10 – 14, 2014 (in Vancouver, British Columbia).*

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

1) *Development of Abundance Based Management Fishery Regimes*

The Transboundary River chapter (Chapter 1) of Annex IV was revised and agreed upon in 2008. 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. Harvest sharing agreements are in place for the Stikine and Taku rivers and the respective U.S. and Canadian fisheries are regulated with the objective of achieving agreed escapement and harvest sharing goals. The Agreement calls for implementation of an abundance based regime for Stikine River coho by 2018, with review of progress on this obligation in 2014; anticipated to occur at the Annual Meeting (February 2014), in addition to a discussion regarding progress on developing an ABM regime for Alsek River Chinook and sockeye.

2) *Maximum Sustained Yield (MSY) Escapement Objective (Taku Coho):*

The (2008) Transboundary Rivers Agreement calls for "*establishing a bilaterally agreed to maximum sustained yield goal for Taku coho prior to the 2010 fishing season*". Work assignments for scientific and technical analysis were initiated in 2007 however progress has been slow.

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 to better understand why Taku enhancement performance has been poor are anticipated to continue. The Agreement calls for annual development of a Stikine Enhancement

Production Plan and a Taku Enhancement Production Plan[these will continue to be completed in 2014.

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. Although progress has occurred, discussions need to continue to enable implementation of the revised procedures.

Obstacles to Completing above Bi-lateral Tasks:

1) The Parties shall improve procedures for coordinated or cooperative management of the fisheries on transboundary river stocks.

An ABM regime for Stikine coho has not yet occurred and is anticipated to be several years away due to difficulties in implementation and cost for in-season abundance estimation. Significant improvement in abundance based management of sockeye and Chinook in the Alsek River requires substantial (and costly) program development.

2) Maximum Sustained Yield (MSY) Escapement Objective (Taku Coho):

The establishment of a bilaterally agreed-upon maximum sustained yield goal for Taku coho prior to the 2010 fishing season has been delayed due to the completion and provision of scientific and technical information to the Transboundary Technical Committee and Panel. It is anticipated that Canada will present scientific and technical analysis (and recommendations) to support the establishment of a MSY escapement objective for Taku River coho; however the Transboundary Technical Committee will require time to review and assess this information. Bilateral agreement from the Panel will require discussion and deliberation. In addition to the MSY goal, the Panel recognizes that fishing / harvest allocations will need to be agreed-upon.

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

Considerable effort has gone into determining reasons behind the low production of certain Taku River enhanced sockeye salmon, and in turn, adjustments have been made to the program to strive to achieve improvement. Despite these efforts, success has been limited in certain programs / area. In general, the success of sockeye enhancement projects / programs in the Transboundary Rivers area is significantly reliant on the availability of funding via the Northern Fund, although Canada is working towards reducing reliance on this source of funds to support egg-take activities. Support for future production of enhanced sockeye salmon in the Stikine River (Tuya) will require concurrence from the Panel on an approach to address concerns regarding terminal harvest beyond 2014.

4) Harvest sharing performance.

Although productive discussions occurred in 2013, implementation of Paragraph 4 requires additional discussion within the Panel (and analysis / interpretation from the Transboundary Technical Committee). 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.

Potential Issues for Commissioners:
None

Proposed Meeting Dates and Draft Agendas:

Transboundary Panel:

1. Pacific Salmon Commission Post-Season Review (January 13 – 17, 2014):
    - Review of the U. S. and Canadian fisheries in 2013 in the Taku, Stikine and Alsek Rivers and resultant spawning escapements.
        - Review of 2013 Canada / U.S. Chinook assessment program on Taku River.
        - Stikine subsistence fishery; 2013 Chinook management and request to increase sockeye harvest guideline.
    - Review of egg takes and other enhancement activities that took place in 2013.
    - Review of enhanced production returning in 2013.
    - Review of preliminary Taku and Stikine enhancement production plans.
    - Discuss numbers of fry to be outplanted into Tahltan and Tuya lakes in 2014.
    - Discuss Taku coho salmon escapement goal analysis.
    - Continued discussion concerning "Paragraph 4" details.
    - TBR evaluation of enhancement operations.
    - Panel and Committee discussions concerning potential cost savings as requested by the Commission.

2. Pacific Salmon Commission Annual meeting (February 10 – 14, 2014):
    - Completion of the agenda from previous meeting.

- Follow-up to questions and issues that arise during post season review.
- Strive to achieve 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 for 2014.
- Northern Fund – update on projects to be funded in the Transboundary Rivers area (2014).

Transboundary Technical Committee:

1. Fall meeting: November 19-20, 2013, Seattle, WA
   - Finalize 2013 preliminary post season report including:
     - 2013 fishery review: review catches, management actions, Treaty compliance.
     - Update and review 2013 stock assessment projects: review escapement and other stock assessment projects including GSI sampling.
     - Review Taku Chinook expansion
     - Discuss / prepare presentation for Panel on Canada / U.S. Taku River Chinook assessment activities undertaken in 2013.
     - Taku and Stikine coho assessment / test fishery
     - Transboundary sockeye enhancement update:
       - Outplants;
       - Enhancement assessment project update;
       - Tuya terminal harvest;
       - Eggtakes fall 2013;
       - Recommendations / Approval of 2013 brood year outplant destinations (Tahltan/Tuya split).
   - Review and update of GSI baseline
   - Review of preseason Taku and Stikine Chinook salmon forecasts for 2014.
   - U.S. provide Canada revised Stikine and Taku Chinook salmon harvest estimates for Districts 8 and 11, 2004-2014 based on GSI.
   - 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 2014 including expected production.
     - Scheduling and assignment of tasks.
     - Review 2012 SEPP/TEPP releases.
   - Update on Taku River coho escapement goal.
   - Update on Northern Fund process for 2014.
   - Report publication schedule.

2. Late Winter Project Planning Management Meeting: February 2014, Vancouver BC:
   - 2014 Program planning -Stikine, Taku, Alsek
   - Enhancement
   - Run outlooks (Chinook, sockeye, coho) – Stikine, Taku, Alsek
   - Preliminary management plans 2014
   - Genetic baseline update and sampling plan 2014

- Enhancement Sub-committee update on hatchery activities, egg take targets, assessment studies, data summary updates and 2014 management plan.

3. Spring Management Meeting: April 2014, Teleconference:
- Transboundary Technical Committee Management Plan 2014
  - U.S. Management Plans and activities
  - Canada Management Plans and activities
  - Joint activities

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 2013 – January 2014.*

Annual Management and Enhancement Plan Reports
- *Salmon Management and Enhancement Plans for the Stikine, Taku, and Alsek Rivers, 2014 – May 2014*

Comments: None.

PACIFIC SALMON COMMISSION WORK PLAN
2013-2014

Panel / Committee:

The Northern Panel and Northern Boundary Technical Committee

Date:

For review at the October 21 – 24, 2013 Commission Executive Session

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

Northern Panel:

1. Review Northern Boundary Area fisheries for 2013 and discuss compliance with provisions of the 2009 PST Agreement.
2. Review and approve the Northern Boundary Technical Committee's update of the 2012 allowable and actual harvests of sockeye salmon, and 2013 allowable and actual harvests of pink salmon, as specified in Annex IV, Chapter 2. Depending upon the availability of a report from the NBTC, may also review preliminary 2013 allowable and actual harvests of sockeye salmon.

Northern Boundary Technical Committee:

Complete the 2012 boundary area sockeye salmon and 2013 pink salmon run reconstructions, update the cumulative AAH harvest sharing agreements, and submit to the Northern Panel for approval. Depending upon availability of data, may also review preliminary 2013 boundary area sockeye salmon run reconstruction.

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 2013–2014.

2. Discuss Commission instructions for Panels to identify, and implement as feasible, cost saving measures given the bilateral challenges with funding.

Northern Boundary Technical Committee:

Discuss Commission instructions for Technical Committees to identify, and implement as feasible, cost saving measures given the bilateral challenges with funding.

Potential Issues for Commissioners:

None.

Proposed Meeting Dates and Draft Agendas:

Northern Panel:

The Northern Panel will meet in conjunction with the Commission Post Season Meeting in January 2014 and, as determined appropriate by the Panel in January, the Commission Annual meeting in February 2014.

Northern Boundary Technical Committee:

The full NBTC will meet in conjunction with the Commission Post Season Meeting in January 2014. The Committee will complete the 2012 boundary area sockeye salmon and 2013 pink salmon run reconstructions, update the cumulative AAH harvest sharing agreements, and submit to the Northern Panel for approval. The Committee may also review a preliminary 2013 sockeye salmon run reconstruction.

Status of Technical or Annual Reports:

The NBTC Annual Report for 2013 fisheries is expected to be available for the January meeting.

Comments:

None

PACIFIC SALMON COMMISSION WORK PLAN
2013-2014

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

Date: Provided at PSC Executive Session in Ketchikan, Alaska on October 22-24, 2013

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

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 2013 sockeye and pink salmon fisheries season.

The revised Chapter 4 was negotiated and will come into effect January 1, 2014.

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 2012/2013 Work Plan in 2013.

Outline of Other Panel / Committee Tasks or Emerging Issues:

There were no other Panel/Committee tasks or emerging issues in 2013

Potential Issues for Commissioners:

There are no potential issues for the Commissioners following the 2013 fishing season.

Potential Issues for Committee on Scientific Cooperation

There are no potential issues for the Committee on Scientific Cooperation following the 2013 fishing season.

Proposed Meeting Dates and Draft Agendas:

October 22-24, 2013 PSC Executive Session

Present the 2013/2014 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 2013 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 2013 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 sockeye 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. Review in-season estimates of pink run size based on marine and in-river test fishery information combined with Mission hydroacoustic and catch estimates.
6. The Panel will prepare recommendations on 2014 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.
7. 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 and diversion that result in stock and/or species overlap and management complications in Panel fishery harvest areas.
8. 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.
9. The Panel will continue to 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 2014 or longer term.
10. The Panel will respond to applicable portions of the of the 2012 PSC Performance Review, following instructions to be supplied by the Performance Review Implementation Group.
11. Interact as needed with the Fraser Strategic Review Committee and the Commission during the review of in-river sockeye and pink salmon hydroacoustic programs

January, 2014 PSC Post-Season Meeting

Each National Section shall conduct detailed reviews of the 2013 Fraser River sockeye and pink salmon returns, fishery performance, special conservation actions and escapement levels and provide a summary of this information to the Commission.

February, 2014 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 2013/2014 Work Plan.

The Panel will initiate the 2014 Pre-Season Planning process consistent with the provisions of the renewed Annex IV, Chapter 4 of the Pacific Salmon Treaty, any Commission guidance that comes forward. The Panel will require meetings in April and June 2014 in addition to the PSC Annual Meetings to complete pre-season planning tasks.

Outline of Other Activities of the Fraser River Panel for the 2013/2014 Cycle
This list includes special items/topics of less time sensitive nature or one-time projects.

Continue to consider 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 2013 Test Fisheries and Develop a Test Fishing Plan for the 2014 Season. Develop clarity regarding triggers for stopping or extending test fishing, and clarify the authority of the Panel in making these decisions.

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 run-size update models for each Fraser Sockeye Management Group in 2013 as well as pink salmon.

The FRPTC will review data comparing stock composition for both sockeye and pink salmon in 2013 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 provide a progress report on the sampling programs at Mission, including any issues that arose from modifications made to the program in 2013. The Panel will also receive a report on the 2013 Qualark acoustic program. Review proposal for changes to Mission program design in 2014.

The FRPTC will review the 2009, 2010, 2011, 2012 and 2013 data updates to the Fraser sockeye catch and exploitation rate files, and make revisions as needed.

The Panel will review tools for evaluation of US and Canadian pink and sockeye potential catches in fisheries.

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 and review updates of progress of the SEF priorities designed to address Fraser River Panel issues

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 2014 Fraser River Panel Programs.

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

Fraser River Panel 2013/2014 Meeting Schedule[1]

January 13-17, 2014	PSC Post-Season Meeting	Portland
February 10-14, 2014	PSC Annual Meeting	Vancouver
March, 2014 – 1 day	Fraser River Panel Technical Committee	TBD
April, 2014 – 2 days	Fraser River Panel Technical Committee	TBD
April, 2014 – 3 days	Fraser River Panel Pre-Season Planning	TBD
May, 2014 – 2 days	Technical Modeling Meeting	Vancouver
June, 2014	Fraser River Panel Technical Committee	TBD
June, 2014	Fraser River Panel Pre-Season Planning	TBD
July 3, 2014	Fraser River Panel – In-Season Meeting	Call
July 11, 2014	Fraser River Panel – In-Season Meeting	Call
July 18, 2014	Fraser River Panel – In-Season Meeting	Call
July 25, 2014	Fraser River Panel – In-Season Meeting	Call
August 1, 2014	Fraser River Panel – In-Season Meeting	Richmond
August 8, 2014	Fraser River Panel – In-Season Meeting	Richmond
August 15, 2014	Fraser River Panel – In-Season Meeting	Richmond
August 22, 2014	Fraser River Panel – In-Season Meeting	Richmond
August 29, 2014	Fraser River Panel – In-Season Meeting	Richmond
September 5, 2014	Fraser River Panel – In-Season Meeting	Call
September, 2014	Fraser River Panel – Post-Season Meeting	TBD

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

Status of Technical or Annual Reports:

Note the reports scheduled for completion during the year and the progress toward completing them. Identify any impediments to completing these reports where not included in "Obstacles to Completing above Bi-Lateral Tasks", above.

Comments:

Include any additional comments not included above that you think that would be useful to the Commissioners.

PACIFIC SALMON COMMISSION WORK PLAN
2013-2014

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 22-24, 2013 (PSC Fall Meeting, Ketchikan, AK)

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.*
- *The Panel informed by reviews conducted of the chapter and annex deliverables will develop a plan to address deficiencies in preparation for the scheduled triennial review of the Chapter.*
- *Seek funding support from NOAA to support completion of the Coho Management Unit Profiles (estimated abundance and criteria determination) The completed profiles will inform work planning and Endowment Fund Priorities.*
- *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:

- *Model improvements and continued extension of base period data sets for the regional planning model (FRAM).*
    - *The completed conversion of the FRAM from VB6 to VB.net.*
    - *Ongoing preparation of documentation (programmer's and user's guides,*
    - *Ongoing analysis of data for catch years 1998-2009. Further expansion to include catch years 1979-1985 will be undertaken after the recent data are completed.*
    - *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.*

- *Further refinements were made to the "Backwards" FRAM model to facilitate reconstruction of exploitation patterns and stock abundance from post-season data. Efforts to improve the data entry process for Backwards FRAM continued.*

- *Documentation of reference points for determining status and associated exploitation rate caps for individual management units (MUs).*
    - *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). The final step, to complete the determination of WSP benchmarks and align with MU reference points, is ongoing with expected completion in 2014.*

- *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 2013, the Parties did not meet to exchange information on their domestic fishery management processes, concerns and priorities. Instead, planning data were exchanged electronically.*

- *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.*
    - *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, were reviewed by local fishery managers, and are currently being finalized.*

Chum Technical Committee:

- *Begin drafting the 2012 annual report, assign tasks and timelines*
- *Assembling draft annual report covering 2011 fisheries and research will be a principle focus during the PSC meetings in January 2014. It is expected that this report will be finalized shortly after the meeting.*
- *The committee's other focus will be continued development of the following aspects of the strategic plan (see attached Figure). These include:*
    - *Finalizing details with contractor on the development of the ChumGEM model (SEF project). This will include database development, identification of data needs, potential model structures and required model inputs and outputs.*
    - *Review and develop summary reports for 3 projects funded (SEF) and completed in 2013; 1) Chum workshops held in B.C. and the U.S. communicating the Chum TC's strategic plan to managers and biologists and specifically focusing on genetic tools being developed to meet PSC obligations and inform domestic chum management. 2) final report on boundary area fishery sampling to collect stock information using genetic*

analysis in mixed stock fishing areas. 3) expansion and implementation of web-based mapping program to facilitate data compilation and accessibility. 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.*

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:

- *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).*

Chum Technical Committee:

- *While support from the Southern Endowment Fund has facilitated our efforts to implement the ChumTC strategic plan, time and travel approval constraints for committee members remains a challenge to task completion.*

Outline of Other Panel / Committee Tasks or Emerging Issues:

Coho Technical Committee:

- *The Southern Panel established the CoWG in 2003 to provide guidance on policy-technical issues. The CoWG convened two times during 2012-2013 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.*
- *Need to 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.*

Chum Technical Committee:

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

Potential Issues for Commissioners:

Coho Technical Committee:

- *The membership of the CoTC and its various workgroups will need to be re-evaluated in light of the recent loss of key members.*

Potential Issues for Committee on Scientific Cooperation

None 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 , 2014 – PSC Post Season Meeting, Vancouver, BC.*
- *February , 2014 – PSC Annual Meeting, Portland OR.*

Coho Technical Committee:

- *Fall 2013 CoTC Model Workgroup Bellingham, WA*
  - *Continuation of efforts to expand Base Period data, MSM and cohort analysis*
- *November 2013 CoWG teleconference*
  - *Review performance of Coho Agreement and CoTC workplan. Provide policy guidance on prioritization of assignments.*
- *Jan 2014 PSC Post Season Meeting CoTC Portland, OR*
  - *Prepare for 2012 post-season assessment of impacts and familiarize Canadian members of workgroup with methods for model parameterization.*
  - *Continue work on assignments, review Endowment Fund projects.*
- *Feb 2014 PSC Annual Meeting CoTC Vancouver, BC*

    - *Use Coho Model to perform post-season assessment of impacts. Incorporate CWT data (phase 3) in post season reviews for years available.*
- *Mar 2014 Coho Workgroup*
    - *electronic data exchange as needed Annual manager-manager information exchange, continue workgroup deliberations*
- *June 2014 Coho Workgroup TBD – teleconference or Richmond, BC?*
    - *Review performance of Coho Agreement and CoTC workplan. Provide policy guidance on prioritization of assignments*

Chum Technical Committee:

- *January 2014 – PSC Post-Season Meeting, Portland, OR*
    - *Review and discuss preliminary post-season 2013 fisheries information*
    - *Collate and review report items for 2011 and 2012 final post-season report*
    - *Finalize 2011 annual report for submittal*
    - *Initiate drafting of 2012 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.*

- *February 2014 – PSC Annual Meeting, Vancouver, BC*
    - *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*
    - *Continue work on 2012 annual report.*

- *May 2014 – PSC Chum TC Spring Meeting, location to be determined*
    - *Continue to define and develop Tier 2 components of the Southern Chum Strategic Plan*
    - *Meet with contractor on ChumGEM model development to work through specific data and assumption issues anticipated during phase I.*

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:

- *Workplans and status were reviewed through presentations at the 2013 PSC meetings.*
- *2011 Post-season estimates of exploitation rates were presented to the Southern Panel at the February 2013 meeting in Vancouver.*
- *Assessment Framework report was provided to the Southern Panel for consideration.*
- *Draft descriptions for US MUs were completed in 2012, were reviewed by local fishery managers, and are currently being finalized.*
- *Completion of Canadian MU descriptions are pending finalization of data for the periodic report and domestic conservation unit benchmarks anticipated in 2014.*
- *Annual report on CoTC priorities will be developed for the Southern Fund Committee.*

Chum Technical Committee:

- *The committee anticipates having the 2011 Annual Report complete by the end of the January meetings in 2014.*

PACIFIC SALMON COMMISSION
SELECTIVE FISHERY EVLUATION COMMITTEE WORK PLAN
October 2013 – September 2014

Panel / Committee:

Selective Fishery Evaluation Committee (SFEC).
SFEC Reports to the PSC Commissioners.
October 22-24 2013, (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). During the 2012-13 work cycle, SFEC completed two annual reports, summarizing the MM and MSF activities proposed for 2011 and 2012. These reports were submitted to the PSC in spring 2013 and were posted on the PSC web site. The report summarizing activities proposed for 2013 is in preparation and will be submitted to the PSC prior to the December 2013 SFEC meeting.

A letter to agencies requesting the completion of proposal templates for MM and MSF activities planned for 2014 will soon be distributed by the PSC Secretariat. As in the past three 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 November 1.

The full bilateral SFEC is scheduled to meet in early December 2013. The main objective of this meeting is to review MM and MSF proposals for 2014 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. Nevertheless, during 2012-13 some SFEC members worked throughout the year (not just at SFEC meetings) to make progress on the backlog of review reports, via email and in-person small work group sessions for members in the same town. This extra work effort helped SFEC complete two more review reports (2011 and 2012) and submit them to the PSC.

Late Proposals: Late submissions of MM and MSF proposals hinder the ability of SFEC to complete its annual report summarizing the proposed activities and to provide timely commentary to agencies during the short window available. However, agencies have shown improvement in their timeliness of submitting, and in fall 2012, SFEC received all MM and MSF proposals by the requested deadline of November 1.

Late Post-Season Reports: Post-season reports on MSFs are required for each MSF prosecuted to provide data needed by the chinook and coho technical committees for implementation of PSC fishing regimes. The data are to be reported in two tables (Appendix I) and submitted prior to the PSC annual post-season meeting following the year the fishery was conducted. The SFEC recommends 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 to simplify MSF reporting by agencies.

The timeliness and consistency of agencies in providing post-season reports for MSFs still needs to be improved. SFEC members have worked with agency staff through personal contact to obtain some of the requested data.

Inability to estimate impacts of mixed-bag fisheries: 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), with varying degrees of complexity; further, the incidence of mixed-bag regulations is increasing. However, catch sampling programs and analytical methods are generally inadequate to estimate impacts on marked and unmarked fish under these varying mixed-bag regulations. A description of the estimation methods being employed or planned to estimate MSF impacts in mixed-bag fisheries will be requested from agencies with 2014 proposals. Without these improvements, the increasing incidence of mixed-bag fisheries will continue to reduce the accuracy of estimates of MSF impacts on unmarked fish.

Travel budget constraints: The SFEC is aware of the uncertainty surrounding travel budgets 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 escapements, and their utility for estimation of impacts on unmarked fish in MSFs, is in progress by the SFEC-AWG. Results of these investigations are 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. The report reviewing MM and MSF proposals for 2013 activities is 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.

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 2013 Post-season Meeting, some SFEC members met again and made further progress on the *Lessons Learned Report*. The report coordinators (i.e., editorial committee) have continued to work via email with individual SFEC members to solicit contributions for their assigned sections of the report.

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 2013 SFEC meeting, SFEC plans to continue making progress on detailed content needed for all sections described in the *Lessons Learned Report* outline.

Proposed SFEC Meeting Dates and Draft Agendas:

When	Who	Location	Purpose
Dec 9-11, 2013	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. 13-17, 2014 (PSC Post-Season Meeting)	SFEC RCWG, AWG, and Oversight	Portland, OR	Full SFEC review and completion of AWG and RCWG drafts of 2014 review report. SFEC Co-chairs provide summary to PSC Commissioners on agency proposals for 2014 MM and MSF. Full SFEC review of status of MM and MSF post-season reports submitted by agencies.
Feb. 10-14, 2013 (PSC Annual Meeting)	SFEC AWG and Oversight	Vancouver, BC	AWG completes Lessons Learned Report and submits to PSC. SFEC Co-chairs identify to PSC Commissioners any issues or concerns regarding agency proposals for 2014 MM and MSF.
February – May, 2014	SFEC AWG	Nanaimo, BC, and Olympia, Washington, USA.	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 Agency[1]	Proposal ID[2]	Most Recent MSF Proposal[3]	Years with MSF since 2003[4]
CDFO			
Sport, Southern BC, on hatchery coho	MSF-FOC-02	2013	2003-2012
FSC, Lower Fraser freshwater, on hatchery coho	MSF-FOC-03	2013	2006-2012
Commercial, Southern BC, on hatchery coho	MSF-FOC-05	2013	2005-2012
Sport, Lower Fraser freshwater, on hatchery coho	MSF-FOC-06	2013	2003-2012
Sport, Strait of Juan de Fuca, on hatchery Chinook	MSF-FOC-07	2013	2009-2012
ODFW			
Sport, Willamette R, on hatchery Willamette spring Chinook	MSF-ODFW-01	2013	2003-2012
Sport, Oregon Coast, on hatchery fall Chinook salmon	MSF-ODFW-02	2013	2008-2012
Sport, Oregon coast, on hatchery coho	MSF-ODFW-03	2013	2003-2012
Commercial, Lower Columbia River (from Buoy 10 upstream to Beacon Rock), on hatchery Chinook.	MSF-ODFW-04	2013	(new)
Commercial, Lower Columbia River (from Buoy 10 upstream to Beacon Rock), on hatchery coho.	MSF-ODFW-05	2013	(new)
WDFW			
Sport, Skykomish R, on hatchery Chinook	MSF-WDFW-01	2013	2003-2012
Sport, Yakima River, spring Chinook	MSF-WDFW-03	2013	2004, 2008, 2010-2012
Sport, L Snake River, hatchery fall Chinook	MSF-WDFW-05	2013	2008-2012
Sport, Washington coast areas 1-4 & Col R Buoy 10, on hatchery coho	MSF-WDFW-06	2013	2003-2012
Sport, Puget Sound, on hatchery coho	MSF-WDFW-07	2013	2003-2012
Sport, Carbon & Puyallup R, on hatchery Chinook	MSF-WDFW-09	2013	2003-2012
Sport, Upper Skagit R on hatchery Chinook, summer	MSF-WDFW-12	2013	2005-2012
Sport, Nooksack R, on hatchery Chinook	MSF-WDFW-13	2013	2004-2012
Sport, Nisqually R on hatchery Chinook, Jul-Jan	MSF-WDFW-14	2013	2005-2012
Commercial, WA areas 1-4, on hatchery coho	MSF-WDFW-15	2013	2003-2012
Sport, Nooksack River, hatchery coho	MSF-WDFW-18	2013	2003-2012
Sport, WA Coast Area 1-4, hatchery fall Chinook	MSF-WDFW-19	2013	2010-2012
Sport, Skokomish River, hatchery Chinook	MSF-WDFW-20	2013	2010-2012

Fishery, location, target stock by Agency[1]	Proposal ID[2]	Most Recent MSF Proposal[3]	Years with MSF since 2003[4]
Sport, Willapa Bay, tributaries, Coho	MSF-WDFW-22	2013	2003-2012
Sport, Grays Harbor, Marine Area 2.2, Coho	MSF-WDFW-23	2013	2007-2012
Sport, Grays Harbor, tributaries, Coho	MSF-WDFW-24	2013	2003-2012
Commercial, Willapa Bay, Chinook	MSF-WDFW-25	2013	2010-2012
Sport, Willapa Bay, Marine Area 2.1, Chinook	MSF-WDFW-26	2013	2010-2012
Sport, Willapa Bay, tributaries, Chinook	MSF-WDFW-27	2013	2010-2012
Sport, Snake River, spring Chinook	MSF-WDFW-28	2013	2010-2012
Sport, Willapa Bay, Marine Area 2.1, Coho	MSF-WDFW-29	2013	2010-2012
Commercial, Grays Harbor, Marine Area 2C, Coho	MSF-WDFW-30	2013	2009-2012
Sport, Quillayute River, Coho	MSF-WDFW-31	2013	2003-2012
Sport, Quillayute River system, hatchery spring/summer Chinook	MSF-WDFW-32	2013	2003-2012
Sport, Hoh River, hatchery spring Chinook	MSF-WDFW-33	2013	2008-2012
Sport summer, WA areas 5-13, on hatchery Chinook[5]	MSF-WDFW-35	2013	2003-2012[6]
Sport winter, WA areas 5-13, on hatchery Chinook[7]	MSF-WDFW-36	2013	2005-2012[8]
Sport, Snohomish R., on hatchery Chinook	MSF-WDFW-37	2013	(new)
Commercial, Grays Harbor areas 2A, 2B, 2C, 2D, Chinook	MSF-WDFW-38	2013	(new)
Sport, Lower Grand Ronde, spring Chinook	MSF-WDFW-39	2013	(new)
WDFW & ODFW (jointly for Columbia River)			
Sport, Lower Columbia R, on hatchery spring Chinook	MSF-OD&WDFW-01	2013	2003-2012
Sport, Columbia R, on hatchery Columbia summer Chinook	MSF-OD&WDFW-02	2013	2003-2012
Commercial, Lower Columbia R, on hatchery spring Chinook (large and tangle net)	MSF-OD&WDFW-03	2013	2003-2012
Sport, Lower Columbia R on hatchery coho (since 1999)	MSF-OD&WDFW-04	2013	2003-2012
Sport, Columbia R., on hatchery fall Chinook	MSF-OD&WDFW-05	2013	2011-2012

Fishery, location, target stock by Agency[1]	Proposal ID[2]	Most Recent MSF Proposal[3]	Years with MSF since 2003[4]
IDFG			
Sport, Snake River, on fall Chinook	MSF-IDFG-04	2013	2009-2012

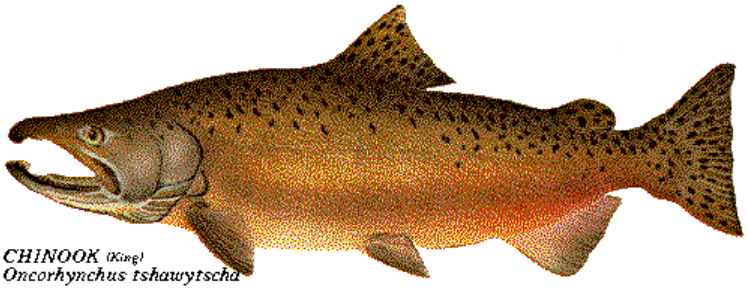
1. Fishery, location, target stock for each Agency: Name of fishery, its location, and which stock is targeted under mark selective fishery regulations.
2. Proposal ID: The proposal number assigned by the PSC secretariat on receipt of preseason MSF proposal from agency. This ID number remains the same 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.
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.
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 (Areas 5-13).
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 (proposal ID: **MSF-WDFW-02)**; Areas 9, 10, 11, and 13 began in summer 2007 (proposal ID: **MSF-WDFW-11**). 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 ID 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 (proposal ID: **MSF-WDFW-08**); 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.

Table 2. Mark Selective Fisheries Information.

Agency **Year** **Estimate Type**

Fishery Information						MSF Regulations					Sampling program						Estimated Catches and Releases								Release Mortality Rates	
																	Marked Fish				Unmarked Fish					
Contact Information	Fishery Area	Fishery type	Start Date (MM/DD/YY)	End Date (MM/DD/YY)	Target Species for Fishery	MSF Species	Bag limits adult and juvenile by mark status	Lower Size Limit	Upper Size Limit	Other	CWT sampling method	CWT Detection method	Heads Processed	Mark Rate	Method for Catch Estimation	Method for Release Estimation	Retained	Legal Sized Fish Released	Sub-Legal Sized Fish Released	Extra-Legal Sized Fish Released	Retained	Legal Sized Fish Released	Sub-Legal Sized Fish Released	Extra-Legal Sized Fish Released	Legal and Extra-Legal Sized Fish	Sub-Legal Sized Fish

Note: See sheet 'Table 2 Instructions' for further details on how to complete Table 2



PSC Chinook Technical Committee

PACIFIC SALMON COMMISSION WORK PLAN 2013-2014

Please note that this is a draft work plan that the CTC co-chairs anticipate discussing with the CIG for potential further development.

Panel / Committee:

The Chinook Technical Committee reports to the Pacific Salmon Commission.

Date: PSC Fall Meeting - October 22-24, 2013

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

1. Annual Reports

Progress This Past Cycle: The CTC typically produces two annual reports each year: the C&E report and the Calibration and Exploitation Rate (CLB&ER) report. The 2013 C&E report was finalized in July of 2013. The 2013 C&E report has been expanded from previous reports and in addition to Section 1 containing fishery catch information and Section 2 containing stock escapement information, a Section 3 was added. A synoptic evaluation of stock status is presented in Section 3 for each escapement indicator stock for each region, summarizing the performance of those stocks relative to established goals over time. This evaluation draws upon the catch information in Section 1, escapement information in Section 2, and exploitation rates and other information to evaluate the status of stocks in a region. Synoptic plots present both the current status of stocks and the history of the stocks relative to PST management objectives to clearly summarize the performance of the stocks and fisheries management relative to established or potential goals. On April 3, 2013, the CTC sent a memo to the PSC containing the pre-season abundance indices for 2013 and the post-season abundance indices for 2012 from the approved 2013 model calibrations (CLB1308 and CLB1309 respectively).

Anticipated Progress this Cycle: The 2013 CLB&ER report is nearing completion and it is anticipated that the report will be completed in October or November of 2013. The 2014 C&E (data through 2013) and 2014 CLB&ER reports will be completed in 2014.

2. 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 this work continues. 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 there is a current contract in place 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 and 2012-2013 cycles using CTC members and an outside contractor to build 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 (DGM), a data simulator, and the model evaluation framework. The CWT has delegated the primary responsibility for completing the data generation model to an outside contractor 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 may 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 2014 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 and use that combines the ERA cohort analysis and PSC Chinook Model algorithms. The data generation model should be completed this cycle which will generate the data necessary to allow the CTC to evaluate alternative approaches to represent Chinook salmon production and population dynamics, and alternative ISBM metric performance.

It seems unlikely that the CTC will be able to incorporate the NBC and WCVI SPFI HRIs in the PSC Chinook Model during this cycle due to limits on resources and proposed reductions in the CTC meeting schedule. Doing so would require a base period recalibration of the model with expanded stock and fisheries strata. Ultimately, the ability to complete this work will depend on the availability of time and money for the AWG to meet.

3. 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. During the 2013 cycle the CTC delivered a memo to the CIG that outlined the proposed approach for standards and guidelines for forecasts and escapement objectives (CTC Task 8) and requested guidance on how to proceed. 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: Work can continue as time permits on draft data standards for the implementation of Total Mortality management, model stocks, exploitation rate indicator stocks, and fishery sampling. Based on discussions with the CIG in 2013, the priority of the remainder of the data standards assignment is moderate to low, and this work group will meet in-person less frequently over the cycle and conduct work electronically where it's feasible.

4. 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 2009 Agreement.

Anticipated Progress This Cycle: Progress on this task depends on two inputs. First, 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. Second, the Model Improvement-Data Generation Model is needed to perform quantitative evaluations of the metrics identified in TCCHINOOK(11)-4. Given the proposed reduction in meeting time and limited travel resources, the ISBM group will probably not meet in person during the cycle. The CTC will continue evaluating if conditions were met for ISBM fisheries pertaining to paragraph 13(d) and 13(e) and reporting the results in the annual CTC Catch and Escapement (C&E) report. This evaluation was initiated in the 2013 C&E report.

5. 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.

6. Five Year Review

Progress This Past Cycle: The CTC has developed a draft outline for the Five Year Review.

Anticipated Progress This Cycle: The outline will be finalized and presented to the CIG at the PSC meeting from October 22-24, 2013 in Ketchikan, Alaska. The CTC will then work with the CIG to determine the next steps.

7. Attachments I-V

Progress This Past Cycle: The CTC had planned to use the information from the base period calibration (part of Model Improvements) to complete this task using the same method that was applied for the 1999 Agreement. However, the base period calibration has not been completed, thus this work group did not meet during the cycle.

Anticipated Progress This Cycle: Given the circumstances with resources and the base period calibration, there will likely be no progress made on this during the cycle unless advised otherwise by the CIG or Commission. The CTC has discussed an alternative approach that would use CWT data, however the details have not been worked out. It may be possible to work through those details via email, conference calls, etc.

8. 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. This is the same situation as the previous cycle and the CTC is not anticipating a change in the status. 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.

9. 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 2012 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. The CTC was still unable to successfully reach consensus and complete the document even with the additional guidance from the CIG. At the 2013 PSC Annual Meeting in February 2013 the CTC was instructed to suspend further work on the PM report with the exception that issues of disagreement would be identified by individuals and the annotated draft of the report would be presented to the Commission at the October 2013 Executive Session.

Anticipated Progress This Cycle: With the exception of providing the annotated draft report to the Commissioners at the October 2013 Executive Session, no further work by the PM Workgroup or the CTC is anticipated during this cycle.

10. 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 CTC will discuss the use of the third and fourth year allocation of PST funds from the 2009 Agreement to fund improvements to the PSC Chinook model in 2014. The CTC will also provide input to the Northern and Southern Endowment Funds as requested.

11. 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 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:

As in previous years, 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 2009 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.

Due to the United States Budget Control Act, termed “sequestration”, and ongoing conservative fiscal policies in Canada, the CTC is proposing to eliminate some CTC meetings in 2014 and limit participation in others. Both of these actions will impact the CTC’s ability to make progress on its assigned tasks. In order to mitigate the effects of the fiscal challenges facing both countries there are some potential actions that could help the CTC with its workload: 1) The CIG and/or Commission could go beyond prioritization of CTC tasks and actually defer or delay some of the lower priority CTC tasks, 2) The US section of the CTC could pursue setting aside 2014 Abundance Based Management (LOA) funds solely for the purpose of supporting the travel of US CTC members to attend CTC meetings. This set aside could occur either through the normal US CTC LOA review process or at the explicit direction of the US Commissioners. 3) The CTC is proposing to hold the majority of the full bilateral CTC meetings in Seattle in 2014. Seattle is centrally accessible to most CTC members and overall requires fewer rental cars and fewer airline flight segments. 4) The CTC will continue to investigate greater use of web conferencing

tools to conduct some of its business. Functionality that will be contained in the CTC SharePoint site that is currently being developed could aid the CTC in this respect.

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) met 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. Since that time the PRIG has had subsequent contact with the CTC co-chairs including a teleconference on August 30, 2013 to discuss ways in which the PSC office could support the activities of the CTC. In addition to the development of the SharePoint site there was discussion about the possible hiring of a database administrator/programmer at the PSC office that may be able to support some of the CTC database/programming needs as well as needs of other technical committees.

A potential issue looming on the horizon that could significantly impact the way the CTC does business is the interest shown by various agencies in investigating the potential replacement of the coastwide CWT system with a genetic based tagging system or with Radio Frequency Id (RFID) tags. The Committee on Scientific Cooperation is currently organizing a workshop to explore these various technologies and their feasibility to deliver the kinds of stock specific exploitation and survival information that is currently provided via the CWT system. Participation in the workshop process will reduce the CTC's capacity for the cycle.

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.

Potential Issues for Committee on Scientific Cooperation:

Beyond the CWT/RFID/Genetic Sampling Workshop mentioned above, no other issues have currently been identified.

Proposed Meeting Dates and Draft Agendas:

Meeting Locations: For this cycle the CTC proposes to meet in either Seattle or Vancouver (PSC office) to reduce travel costs as a whole. This approach differs from the rotational approach used by the CTC previously whereby meetings occur at the locations of the CTC member offices. This new strategy will increase travel costs for some groups and reduce them for others. It will also reduce travel time and increase meeting time.

Work Flow: Several subcommittees/workgroups, such as the AWG, model improvements, and bilateral data standards will be active again in October, 2013. The CTC will focus on other tasks arising from the 2009 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 if instructed by the CIG. In addition, the CTC will plan for the Attachment I-V workgroup to work remotely (email, teleconference, etc.).

November 18-22, 2013. The bilateral CTC will meet in Parksville, BC to finish work on the 2013 CLB&ER report and to allow the CTC workgroups to make progress on their assignments related to the 2009 PST agreement. This meeting was originally planned for October 7-11, but it was rescheduled to November due to U.S. travel restrictions.

December 2-6, 2013. 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 2014 LOA funds.

January 13-17, 2014. Historically, the bilateral CTC has met during the PSC Post-season meetings. However, in response to the fiscal situations of both the US and Canada sections, the co-chairs are proposing that only the CTC co-chairs and potentially the AWG attend. The co-chairs will be available to consult with the CIG, the PRIG and the Commissioners. The AWG will begin work on the Chinook ERA through 2012 by working from their offices (via email, GoToMeeting, etc.). However, if it is determined that the AWG needs to attend this meeting in order to keep the ERA on track then their travel will be paid from the Model Improvement funds held at the PSC office.

January 27-31, 2014. The bilateral CTC AWG will meet in Vancouver, BC to complete the annual Chinook Exploitation Rate Analysis.

February 10-14, 2014. The bilateral CTC will meet during the 29th PSC Annual meeting in Vancouver, BC. The AWG will begin work on the 2014 PSC Chinook Model calibration. The CTC will 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 2014.

March 17-21, 2014. The bilateral CTC AWG will meet in Vancouver, BC to continue work on the PSC Chinook Model calibration in order to produce a final calibration for the year. The CTC will report the 2014 preseason AIs and allowable catch targets for the AABM fisheries to the PSC Commissioners prior to April 1.

April 21-25, 2014. Historically, two or three of the CTC workgroups have met in April to continue working on high priority assignments. However, in response to the fiscal challenges currently be faced by both the US and Canada, the CTC is proposing that the Model Improvement and possibly another work group meet throughout this week via web conferencing tools. The C&E report will be completed by June.

June 2-6, 2014. The bilateral CTC will meet in Seattle, WA to draft the CLB&ER and other workgroup reports. The CTC will review progress on workgroup assignments to date, potentially plan for the 5 Year Review Workgroup and the Attachment I-V workgroups to begin meeting and assign tasks for the summer.

September 22-26, 2014. The bilateral CTC will meet in Seattle, WA to complete reports on Model Improvements, Bilateral Data Standards and the CLB&ER analyses.

Status of Technical or Annual Reports:

The 2013 C&E report is complete. The 2013 CLB&ER report will be completed by the end of 2013 and the 2014 C&E and 2014 CLB&ER reports will be completed in 2014.

Comments:

The CTC has no additional comments at this time.

PACIFIC SALMON COMMISSION WORK PLAN
2013-2014

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 22 -- 24, 2013 in Ketchikan, AK.

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 Committing, Selective Fishery Evaluation Committee, and Coho Technical Committee to improve the CWT data system to better support their analytical work.

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.

The committee conducted all of its work electronically over the last cycle. Three potential in person meetings are identified for the upcoming cycle, however the committee will only meet in person if the work cannot be completed electronically or via teleconference.

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
November 2013	Data Standards	Vancouver, BC	Address quality control and database needs not currently supported by CWT database Develop recommendations for revisions for review by Data Sharing Committee.
Jan or Feb 2014	Data Sharing	One day, same place/time as post-season or annual 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.
March 2014	Data Standards	By video conference / conference call	Develop implementation strategy for CWT data system improvements identified in work plan and any tasks identified by Data Sharing at their meeting.
September 2014	Data Standards	Olympia, WA	Address more complicated quality control and database needs not currently supported by CWT database identified by Data Sharing at their meeting Develop recommendations for revisions for review by Data Sharing Committee.

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
2013-2014

Panel / Committee:
Committee on Scientific Cooperation (CSC) reports to the Commission

Date: October 22-24, 2103

Update on Bi-lateral Tasks Assigned Under Current PSC Agreement:
A newly reconstituted and resurrected Committee on Scientific Cooperation (US: David Hankin and Alex Wertheimer; Canada: Laura Richards and Mark Saunders) was established and charged with an updated Terms of Reference adopted on February 15, 2012. At the 2013 annual meeting, Commissioners approved the CSC's proposals for future work which included a workshop on coded wire tags and a training workshop on Bayesian methods.

Coded wire tag workshop: Both the Northern and Southern endowment funds approved a CSC concept proposal: "Revisiting the future of the CWT program" in their first rounds of reviews. The initial concept proposal will be revised based on feedback and discussions from a strategy sessions held in Seattle in September 2013. If the submitted full proposal (due 31 October 2013) is approved, the CSC will sponsor activities in spring 2014 that should provide the Pacific Salmon Commission and its affiliated State, Federal and Provincial agencies with explicit recommendations concerning how best to ensure that information currently generated from the Coded Wire Tag Recovery program (estimates of marine survival, ocean and freshwater fishery exploitation rates, maturation probabilities, etc., of Chinook and coho salmon stocks) will be available in the future. Details of just how this can best be accomplished remain under development.

Bayesian workshop: In 2013, the Commission determined that the format and structure for this workshop and identification of appropriate participants would be determined collaboratively by a steering committee consisting of members of the CSC, Catherine Michielsens and PSC TC members with suitable background and expressing interest in service on the steering committee. The CSC will use the 2014 post-season and annual meetings to convene this steering committee and proceed with cost-effective planning for a workshop in 2014 or early 2015.

Obstacles to Completing above Bi-lateral Tasks:
Both proposed workshops will be depending on funding and the participants' ability to travel.

Outline of Other Panel / Committee Tasks or Emerging Issues:
The CSC welcomes any additional tasks which may be identified by Commissioners.

Potential Issues for Commissioners:
N/A

Potential Issues for Committee on Scientific Cooperation:
The CSC welcomes the opportunity to review suggestions put forward by the Panels and Technical Committees and is prepared to address the priority issues identified by Commissioners.

Proposed Meeting Dates and Draft Agendas:
The CSC plans to meet face-to-face at the January post-season review to convene the steering committee for the Bayesian training workshop and to address any new issues identified for the CSC through the October work planning process.

The CSC will make its annual report to the Commission in person at the February annual meeting.

Status of Technical or Annual Reports: N/A

Comments: N/A

PACIFIC SALMON COMMISSION WORK PLAN
2013-2014

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 22–24, 2013 in Ketchikan, AK.

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 salmon stocks in British Columbia (along the north coast, along the west coast of Vancouver Island, and in the Fraser River), around the Puget Sound of Washington State, and along the north coast of Oregon. In 2013 the SSC recommended and the commission funded 12 projects to estimate escapements for stocks in the Nass, Skeena, South Thompson, Chilko, Burman, Snohomish, Stillaguamish, Green, Siltez, and Nehalem rivers; in three streams on the WCVI; and to estimate terminal run size in aggregate for natural stocks from the WCVI and from the north Oregon coast.

Obstacles to Completing above Bi-lateral Tasks: It has been challenging to develop escapement estimates for almost all of the rivers along the WCVI. The obstacles include frequent inclement weather, small size of individual stocks, difficulty in capturing Chinook salmon, remoteness, and high cost. Development of a statistical framework for stock assessment—an SSP project funded in 2012—should alleviate some of these problems. While not estimating escapement directly, estimating terminal run size in aggregate for the WCVI stocks—an SSP project funded in 2013—should help put the magnitude of those escapements in perspective.

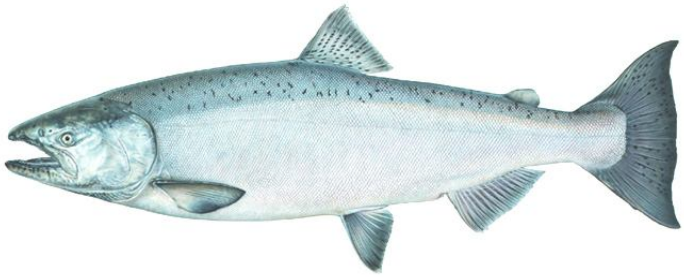
Outline of Other Panel / Committee Tasks or Emerging Issues: None

Potential Issues for Commissioners: The upcoming year 2014—the sixth year of the program—is potentially the final year of the program.

Proposed Meeting Dates and Draft Agendas: The SSC will meet in Seattle from December 2–3 to review progress by projects funded in 2013 and to develop a request for proposals for work in 2014. The SSC will meet in Vancouver over three days during the week of January 27 to review proposals for 2014 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 Vancouver, BC 10–14 February, 2014.

Status of Technical or Annual Reports: All project reports for 2012 are summarized in the 2012 Annual Report of Catch and Escapement, TCCHINOOK (13)-1.

Comments: None



PSC Coded Wire Tag Implementation Team

PACIFIC SALMON COMMISSION WORK PLAN
2013-2014

Panel / Committee: Coded Wire Tag Implementation Team (CWTIT) of the CWT Improvement Program reports directly to the Commission.

Date: This work plan will be presented to the commission during its executive meeting October 22–24, 2013 in Ketchikan, AK.

Update on Bi-lateral Tasks Assigned Under Current PSC Agreement: The task assigned to the CWTIT is to recommend projects to address deficiencies in the CWT program for Chinook salmon. Projects are to be implemented through the respective domestic management authorities of the U.S. and Canada over a five-year period. In 2013 the CWTIT recommended and the commission funded about 40 projects to increase tagging of indicator stocks and sampling of fisheries and escapements, to purchase new or obsolete equipment, to improve data reporting systems, and, in two cases, to maintain ocean sampling capabilities that were adversely affected by the loss of other funding.

Obstacles to Completing above Bi-lateral Tasks: The ability to complete projects and sustain their benefits over a five-year time horizon is challenging. Some improvements to the CWT system, such as equipment purchases, improved methodologies, and revision of reporting systems are one-time investments that will have legacy impacts. Others such as tagging of indicator stocks require 4-6 years for CWT recoveries to be complete so results of investments in CWT improvement are not yet available for analysis. Other improvements such as correction of deficiencies in catch sampling programs will require continued funding beyond the 5-year CWTIT program. Providing a broader range of Improvements on the U.S. side has been impaired by funding base-level ocean sampling in Washington and Oregon due to the loss of the former funding source—this cost has been $450K-$500K per annum for the past 3 cycles.

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

Potential Issues for Commissioners: While realizing many coastwide improvements to the CWT system over the past years of implementation, the upcoming year is potentially the final year of the program. Ending the CWTIT program will result in the need to find other sources of funding to complete projects already underway and to continue tagging and recovery programs for monitoring stock status and fishery impacts on indicator stocks. By consensus, the CWTIT recommends that the program continue through at least February 2015 and preferably through the remainder of the 2009 agreement (2018) in order to continue to provide vital metrics used for management and to evaluate the performance of the treaty. Our charge would be to: 1) to continue to provide expert advice and recommendations for CWT projects and issues to provide the best management statistics with available funding, 2) hold the 2014 CWTIT workshop in Dec 2014, 3) prepare a framework for a PSC Technical Report that will be a synthesis of the results (to date) in the CWT Improvement Program's initial 5 years, and 4) potentially participate in a forum to address the future of the CWT system and PSC management.
The cost to maintain the CWTIT for 2 more years is relatively small. Much of the CWTIT's work is accomplished through teleconferences, email, or piggy-backed onto other PSC meetings. Most of the cost of the annual workshop is paid via a grant at the PSC office, approved by the commission.

For the US, long-term funding sources need to be found to maintain CWT sampling programs formerly supported through Anadromous Fish Act grants. Additionally, the CWTIT notes that investments to address deficiencies in the CWT program for coho salmon are needed.

Proposed Meeting Dates and Draft Agendas: The CWTIT has met once via teleconference to go over the plan for the year and other issues. The CWTIT will meet in Seattle from November 12-13 to review the status of projects funded in 2013 based on presentations by the principal investigators; and will meet November 14-15 to prepare our progress report for January, 2014. The CWTIT will review and provide recommendations on a set of U.S. projects in late January via teleconferences and emails. The CWTIT plans to present the list of recommended projects to the commission during its annual meeting in Vancouver, BC 10–14 February, 2014.

Status of Technical or Annual Reports: All project reports for 2012 are summarized in the 2013 Annual Report on Model Calibration and Exploitation Rate Analysis, TCCHINOOK (13)-2, a report of the Chinook Technical Committee nearing completion.

Comments: None

Sentinel Stocks Committee

Progress Report for Projects funded through the Sentinel Stocks Program, 2013

Report to the Pacific Salmon Commission during their Executive Work Session, 2013

22-24 October, 2013

Ketchikan, AK U.S.A.

Please find below a description of progress for the 13 projects that comprise the Sentinel Stocks Program in 2013. Twelve projects were funded in 2013; the other (WCVI Statistical Framework) was funded in 2012. Allocated funds, schedules, main objectives, and status of fieldwork are also listed for each project. Information given below reflects the latest information available to the Sentinel Stocks Committee in early October, 2013.

Northern BC – Nass Stock

Cost in 2013: 112.6 $Can
Nass River Escapement Estimate Improvement
Progress through September 27
Fisheries and Oceans Canada
Field work Completed as of October 12

The objective is to augment an existing mark-recapture study to estimate the escapement to the Upper Nass River by increasing the number of adult Chinook salmon marked and subsequently inspected for marks. The goal was to improve precision in the estimate to meet the CTC standard. Funds were to mark at three to four fishwheels at Grease Harbour in addition to the two fishwheels at Gitwinksihlkw, survey carcasses on the Damdochax River and elsewhere, and operate a weir (fence) on the Kwinageese River for the full migration period of the Chinook run. Operations began on schedule and tagging at Grease Harbour fishwheels occurred as planned with below average fishwheel catches of Chinook in 2013. A preliminary size-stratified estimate of 10,678 (SE=899; CV% = 8.1) Chinook adults (>49 cm NFL) was computed to Gitwinksihlkw. The estimate was based on 1,654 marks applied from 1,981 fish captured at the fishwheels, 1,102 fish examined for marks from three Upper Nass tributaries, and 146 marks recovered from the recovery efforts. The CTC standard was fully achieved in 2013 due to the additional funding received to support tagging and recovery efforts. The additional funding also helped monitor fish passage from in-stream habitat work that enabled passage of salmon on the Kwinageese River since August 2011. The river was previously blocked from a recent rock slide.

Northern BC – Skeena Stock

Cost in for 2013: 35.8 $Can
Escapement Estimation Skeena River w/ GSI
Progress through September 24
Fisheries and Oceans Canada
Field work Completed as of September 24

The objective is to estimate escapement of Chinook salmon to the Skeena River by expanding an estimate for the Kitsumkalum River using the genetic composition of catches in the Tyee Test Fishery. Monies from the SSP fund genetic analysis of samples taken in the test fishery. The test fishery itself and the project to estimate abundance in the Kitsumkalum River are funded independently. The Tyee Test fishery is conducted with a fixed level of effort and all fish caught are sampled. As such, Chinook abundance directly influences catch levels. The project began on schedule and approximately 500 fish were sampled. Genetic extractions have been completed and genotyping is underway. Funding was based on a maximum of 1500 fish sampled. The sampling shortfall (500 versus 1500) will reduce precision in estimated abundance by a moderate amount, but should not affect the accuracy of the estimate. The variance around the estimate of Kitsumkalum Chinook salmon will have the most significant effect on whether the estimate for the aggregate meets the data standard. The Kitsumkalum project is underway. Tags were applied to approximately 1000 age 3+ fish. Excellent weather conditions in August and early September had positive effects on the number of fish encountered in the tagging event and the dead pitch program that makes up the second event in the mark-recapture study.

To date approximately 600 carcasses have been examined for marks. Carcass recovery continues on the Kitsumkalum River. Actual costs for this project will be approximately $16K.

WCVI – Marble, Sarita, and Tranquil Stocks

Cost in 2013: 180.8 $Can

Abundance Estimate w/ AUC Methods

Progress through September 26

DFO South Coast Division, WCVI Salmon Assessment Unit

Field work Ongoing as of September 26

The objectives are to estimate the survey life (SL) of Chinook salmon entering the freshwater survey areas, assess temporal and spatial variation in SL, estimate observer efficiency, and develop AUC escapement estimates. The project uses radio tagging of salmon near the river mouth and snorkel and telemetry surveys in the rivers. Radio-tagged fish are tracked in each river using two methods: fixed-station receiver sites at the top and bottom of the index survey section and mobile-tracking during swims with an H-antenna. At the Marble River, tagging began on August 22nd and after 19 days of sampling only 5 adult Chinook salmon had been radio-tagged. Marble River snorkel surveys began in late August, and the peak count of adult Chinook to date was on September 16th at 96 fish. Up to September 25th only 1 tag has been tracked into the survey section. These observations are extremely low for this time of year for both in-river and in the approach water sampling. Prior to August 25th, extremely low water levels and elevated water temperatures (19-20 C) had prevented any in-river capture and tag application. Water levels have increased as of September 25th and new fish have entered the lower portions of the river. Water temperatures have declined and in-river tagging operations have commenced with an additional 3 tags applied and tracked into the survey area as of September 26th. At the Tranquil River, the receivers have been installed and 15 tags have been applied. The peak count as of September 26 is 100 Chinook salmon. At the Sarita River, below the survey section, 26 tags were applied during one tagging event on September 17th, 11 were tagged on the 26th, and one more tagging event is planned. Snorkel surveys in the Sarita began in early September. The peak count as of September 26 is 704 Chinook salmon on September 26. Paired swims and telemetry will continue through October.

WCVI - Burman Stock

Cost in 2013: 122.3 $Can

Burman River Escapement Estimation

Progress through September 26

Uu-a-thluk/Nuu-chah-nulth Tribal Council

Field work Ongoing as of September 26

The primary objective is to estimate escapement of adult Chinook salmon with closed-population and open-population mark-recapture experiments. Marking began on September 3. While Chinook salmon accumulated in the lower river staging area about 1,332 adult salmon were marked. Very few jacks (30) have been marked, amounting to about 10% of 2012 levels. The first significant rains from September 20-23 initiated a large upstream movement of fish into the spawning area. The population in the staging area and upstream is well marked, and the project is well situated for the carcass recovery phase. To test the efficacy of the open population method, in-season estimates of population were generated with POPAN after each marking event. The open population estimate for September 26 is 8,202 (SE=878.9, CV= 11%, 95% CI 6,349 - 10,596) with 83 - 93% of adults having arrived or having moved through the staging area on or before that date. The tag application target (1500 tags applied) has nearly been met, and carcass sampling is underway and it appears very likely that the CV of $\leq$15% will be achieved. Sampling targets for otoliths and scales have been 50% achieved. Marking will continue as new fish continue to enter the lower river.

WCVI – Statistical Framework for Stock Assessment

Cost in 2012: 30.0 $Can

DFO South Coast Area, WCVI Salmon Assessment Unit

Progress through October 5
Ongoing as of October 5

A Canadian Science Advisory Process workshop was held from June 18 to 20, 2013 in Nanaimo, BC. Participation in the workshop was by invitation and was open to members of the SSC and CTC; many of whom were able to attend. Other participants included representatives from DFO Science branch and subject matter experts (notably Carl Schwarz, Simon Fraser University and Josh Korman, consultant). The workshop included two objectives: 1) to evaluate the visual survey methodology used to estimate WCVI Chinook Salmon escapement for index stocks; and 2) to review and recommend methods suitable for estimating aggregate escapement (index of production) for WCVI Chinook Salmon. Participants made several recommendations with regard to the WCVI Chinook escapement monitoring program and these are summarized in the draft CSAS Science Advisory Report (SAR) and in more detail in the draft meeting proceedings report. Next steps include 1) finalization of the SAR and Proceedings after broad review by workshop participants and 2) follow-up on the advice and recommendations described in the SAR. These include: 1) drafting a WCVI chinook assessment framework; 2) revised papers based on the original working paper presented in the workshop and results of the peer review. The draft SAR and Workshop Proceedings have been circulated to workshop participants. A draft WCVI assessment framework is anticipated to be presented and reviewed with the SSC during the fall at some point (plans for the October 7 SSC were cancelled due to US travel restrictions).

Fraser – South Thompson Stock

Cost in 2013: 157.8 $Can

Abundance Estimate South Thompson Aggregate

Fisheries and Oceans Canada

Progress through October 3
Field work Ongoing as of October 3

The objective is to estimate system-wide escapement to the Fraser Summer-run 0.3 aggregate and component populations. The method estimates stock contribution rates from scale, GSI and CWT data collected in the NBC troll fishery and in the Lower Fraser test fisheries, which are then applied to CWT data collected on the spawning grounds for the Lower and Middle Shuswap indicator stocks. The method requires application of CWTs to juveniles from the indicator stocks, and mark-recapture studies in Middle and Lower Shuswap rivers to estimate the returns of CWTs to both systems and to achieve target sample sizes of CWT recoveries in the NBC troll and Albion test fishery. Targets for numbers of CWTs to be applied and released (150k from Middle Shuswap and 500K from Lower Shuswap) were achieved. Fishery sampling for GSI and scales occurred on the North coast, as well as for CWTs (in prep), and subsequent data are being processed. At the Fraser River test fisheries GSI, scale and CWT samples await analysis. Mark-recapture studies are ongoing at both systems. Marking has finished at Middle Shuswap and recovery sampling has just started, whereas marking is still underway at Lower Shuswap. Marking has finished at Middle Shuswap and recovery sampling has just started, whereas marking is still underway at Lower Shuswap. Escapements to both systems appear to be higher than last year, with a greater proportion of 2-ocean fish than normally observed. At Middle Shuswap, approximately 350 Chinook salmon were marked and released back to the river, and approximately 1500 salmon have been marked to date at Lower Shuswap. Carcass sampling has not yet commenced at Lower Shuswap.

Fraser – Chilko Stock

Chilko River Chinook Salmon Mark-Recapture
Fisheries and Oceans Canada

Cost in 2013: 221.0 $Can
Progress through September 28
Field work Ongoing as of September 28

The objective is to estimate spawning abundance in the Chilko River, using a two-event mark-recapture study. A total of 759 fish were captured, marked with Petersen disk tags and released back into the river of which 507 fish were captured by beach seines and 252 by angling. Carcass sampling started in early September. As of September 27th, approximately 1870 carcasses had been examined for marks, of which 130 were marked. Based on those recoveries, a preliminary estimate of 3700 has been developed (CV <5%), however, no assessments of bias have been conducted at this time. We anticipate that field activities will be completed by the end of the first week of October, at which time data entry and analysis will begin.

Puget Sound – Stillaguamish Stock

Escapement Estimation w/Genetic Mark-recapture
Washington Department of Fish and Wildlife

Cost in 2013: 85.0 $US
Progress through October 4
Field work Completed by May 31

The SSP funded a Chinook salmon spawning escapement project on the Stillaguamish River using a genetic mark-recapture study based on parental genotyping from carcasses collected in the fall and outmigrants captured via smolt trapping during the following winter and spring. This is a cooperative effort between WDFW and the Stillaguamish Tribe. We provided escapements using this method for BY 2007 through 2011 in our most recent annual report. Progress for BY 2012 is presented in Table 1. A total of 324 and 1407 tissue samples were collected from adults and juveniles, respectively (adult total includes scales). WDFW Molecular Genetics Lab is currently in the process of genotyping adult scale samples; some scale samples failed to amplify because of the deteriorated condition of the original carcass and because some scales had been cleaned prior to receipt by the WDFW lab. The WDFW lab is currently genotyping adult and juvenile samples.

Table 1. Tissue samples (adult samples include tissues and scales) and genotyped Stillaguamish River Chinook salmon for BY 2012 GMR project.

Spawn Year	Outmigration Year		Carcasses Sampled	Carcasses Successfully Genotyped		Juveniles Sampled	Juveniles Successfully Genotyped
2012	2013		324	in progress		1407	In progress

Puget Sound – Green Stock

Escapement Estimation w/ Genetic Mark-Recapture
Washington Department of Fish and Wildlife

Cost in 2013: 153.0 $US
Progress through October 4
Field work Completed by May 31

The SSP funded a Chinook salmon spawning escapement using a genetic mark-recapture study based on parental genotyping from carcasses collected in the fall and outmigrants captured via smolt trapping during the following winter and spring. WDFW provided escapements using this method for BY 2010

and 2011 in our recent annual reports. WDFW Molecular Genetics Lab is currently processing the salmon carcasses collected by Region 4 staff in BY 2012. Progress for BY 2012 is presented in Table 2. A total of 527 and 5283 tissue samples were collected from adults and juveniles, respectively. A total of 1995 juveniles will be subsampled for genotyping. Genotyping of adult and juvenile samples is in progress at the WDFW Molecular Genetics Lab.

Table 2. Tissue samples and genotyped fish for Green River Chinook salmon for BY 2012,

Spawn Year	Outmigration Year		Carcasses Sampled	Carcasses Successfully Genotyped		Juveniles Sampled	Juveniles subsampled	Juveniles Successfully Genotyped
2012	2013		527	In progress		5283	1995	In progress

Puget Sound – Snohomish Stock

Escapement Estimation w/ Genetic Mark-Recapture
Washington Department of Fish and Wildlife

Cost in 2013: 239.1 $US
Progress through October 4
Field work Completed by May 31

The SSP funded a Chinook salmon spawning escapement project in the Snohomish River basin using a genetic mark-recapture study based on parental genotyping from carcasses collected in the fall and outmigrants captured via smolt trapping during the following winter and spring. This is a cooperative effort between WDFW and The Tulalip Tribes. WDFW and The Tulalip Tribes provided escapements using this method for BY 2011 in our recent annual report. Progress for BY 2012 is presented in Table 3. A total of 187 and 397 tissue samples were collected from BY12 adults on the Snoqualmie and Skykomish Rivers and tributaries, respectively. A total of 641 and 2513 juveniles were collected from the Snoqualmie and Skykomish smolt traps, respectively. All age 0+ Snoqualmie juveniles will be run. Skykomish age 0+ juveniles will be subsampled. A total of 1995 juveniles will be genotyped with Sentinel Stocks funding. Genotyping of adult and juvenile samples is in progress at the WDFW Molecular Genetics Lab.

Table 3. Tissue samples and genotyped fish for Snoqualmie and Skykomish River Chinook salmon for BY 2012.

River	Spawn Year	Outmigration Year		Carcasses Sampled	Carcasses Successfully Genotyped		Juveniles Sampled	Juveniles Successfully Genotyped
Snoqualmie	2012	2013		187	In progress		556	In progress
Skykomish	2012	2013		397	In progress		1439	In progress

Oregon Coast– Nehalem Stock

Cost in 2013: 236.6 $US

Nehalem Escapement Indicator Stock Enumeration
Oregon Department of Fish and Wildlife

Progress through October 2
Field work Ongoing as of October 2

The objective is to estimate spawning escapement with a mark-recapture study. Fish began entering the river in late July, we began marking fish in early August and by the 2nd of October 639 adults had been captured and marked in the first event, the highest number marked by this date in the last five years of mark-recapture. The target is 5% of an expected 7,800 spawning fish return or 390 fish marked. So far the majority of marked fish are presumed to represent the summer run. The fall run has only begun to enter the river. Concurrent to incoming Chinook being marked, efforts to recover fish on the spawning grounds began the week of September 9th. To date (10/2), four out of 41 carcasses examined were marked. During the last week of September, record rainfall amounts were recorded in many parts of the coast. Crews are currently waiting for lower water levels before continuing marking or recovery efforts.

Oregon Coast– Siletz Stock

Cost in 2013: 204.6 $US

Siletz River Escapement Indicator Stock Enumeration
Oregon Department of Fish and Wildlife

Progress through October 4
Field work Ongoing as of October 4

The objective is to estimate spawning escapement with a mark-recapture study. Marking began August 26th and to date 185 wild adults have been captured and marked. The target is 5% of an expected 5,800 spawning fish return or 290 fish marked. Concurrent to incoming Chinook marking activities, we began surveying spawning grounds during the week of September 9th. To date, mostly live fish have been observed on the spawning grounds. Only nine spawned out fish have been examined; two were marked. During the last week of September, record rainfall amounts were recorded in many parts of the coast. Crews are currently waiting for lower water levels before continuing marking or recovery efforts.

WCVI/NOC Stock Groups in Aggregate (New)

Cost in 2013: 154.0 $US

Estimating terminal run size of driver stocks of SEAK Fisheries
Alaska Department of Fish and Game

Progress through October 1
Field work Completed as of October 1

The objective is to estimate the terminal run sizes of aggregate stocks of natural and of hatchery origin Chinook salmon for two stock groups: West Coast Vancouver Island (WCVI) and North Oregon Coast (NOC). Catches from each of the two aggregate stock groups in the SEAK troll and sport fisheries are estimated through genetic analysis (GSI). Each aggregate is represented by an exploitation rate indicator stock —Robertson Creek Hatchery for WCVI and Salmon Creek Hatchery for NOC—that are marked with CWTs. If the exploitation rate indicator stock is a good one (has the same exploitation rate as the aggregate stock being estimated), the ratio of catches in SEAK fisheries from the aggregate stock to catches from the indicator stock is the same as the terminal run size of the aggregate stock to the terminal run size of the indicator stock. Calculations are stratified by age to better meet the condition of equal exploitation/maturation rates. Certain diagnostic tests are to be performed to test the hypothesis of equal exploitation rates. Otoliths are also sampled on sampled fish genetically identified as WCVI salmon to detect a hatchery origin and those so detected are weighted in calculation to account for the small fraction of hatchery production along the WCVI without thermally marked otoliths.

Sampling of harvests of Chinook salmon in Southeast Alaska troll and sport fisheries began in May 2013 and concluded in September 2013. Because the harvest allocation for Southeast Alaska Chinook was fulfilled during the first retention period of the summer troll fishery, no second retention period occurred. Thus, sample sizes were less than expected for those fisheries. Samples from troll fisheries were returned in July 2013, and sport samples are expected October 2013 (Table 4). Laboratory analysis is expected to be completed by January 2014. Results will be used to identify individuals for otolith and age analysis. Final estimates of terminal run size are expected by November 2014, and a final report completed by December 2014.

Table 4. Number of Chinook salmon sampled in selected Southeast Alaska fisheries between May and September 2013. Samples include those sampled for both genetics and otolith extraction. Sample sizes for the summer troll fishery were less than expected due to closure of the fishery after the first retention period.

Fishery	Port	Goal	Sampled
Summer Troll	Craig	220	160
	Pelican	120	60
	Sitka	600	300
	Yakutat	60	30
	Subtotal --->	1,000	550[a]
Sport	Sitka	1,500	1,867
	Craig	500	501
	Subtotal --->	2,000	2,368
	Total	**3,000**	**2,918**

[a]Indicates sample may be used for NOC calculations only (not WCVI).

Sentinel Stocks Committee

Recommendation to the Commission concerning Extension of the Sentinel Stocks Program

Report to the Pacific Salmon Commission during their Executive Work Session, 2013

22-24 October, 2013

Ketchikan, AK U.S.A.

By consensus the Sentinel Stocks Committee (SSC) recommends that the Sentinel Stocks Program (SSP) continue through to the remainder of the 2009 Agreement (2018) in the same format that exists currently, albeit with a reduced funding level. Stocks studied through the SSP in the future should be those in the current agreement and the function and organization of the SSC should remain as in the past.

The Sentinel Stocks Committee appreciates the pressures created for the Endowment Funds over the past five years, especially when there was little funding available. This circumstance reduced the Endowment Funding available for other priorities, thus a more flexible funding model may be able to achieve a better balance among priorities. The SSC agreed that high priority future funding will be at least $1M but less than the $2M annually set aside in past years. The SSC did not reach consensus on a specific funding level.

These recommendations are based on the SSP's accomplishments and future needs. The SSC has effectively fostered new approaches to old problems—genetic mark-recapture, genetic stock identification linked to exploitation rate indicators stocks, and recovering past escapement estimates through scale archives are among the examples. Success has been mainly due to the active participation by the SSC in planning, reviewing and refining projects submitted by agencies—an involvement that is atypical of other funding committees within the Pacific Salmon Commission. Termination of the SSP at the end of year 6 would stop such involvement.

Continuing the SSP through the remainder of the Agreement period would provide high quality information on important Chinook salmon stocks to those representatives negotiating the 2019 agreement. The Sentinel Stock Program was started because of a dearth of relevant information for the last negotiation; there will be a need for current information during the next negotiation as well. Other venues for funding projects are not specific to Chinook salmon (Northern and Southern funds) or do not fund projects in Canada (the US LOA), and therefore cannot guarantee current information will be available on important Chinook salmon stocks for the next negotiation. Such information would be available should the SSP continue.

Finally, the SSC believes that there is still work to do, especially to develop high quality, cost-effective programs that provide a legacy. Advances in estimating escapement of Puget Sound stocks occurred only in the last couple of years and there would be benefits from additional years of study. Studies on individual WCVI stocks have had a mixed history of success, and studies involving estimation of an aggregate of WCVI stocks are just starting. The lack of information on escapement for these two stock groups was at the crux of the last negotiation because of apparent stock conservation issues. The SSP in the future could focus on funding workable projects where the information is needed most.

Regardless of the Commission's decision concerning the future of the SSP, the SSC plans to provide a written summary to the Commission of the program's history at the end of year 6. If the commission decides to extend the SSP, this report will be a progress report. If the Commission decides otherwise, the report will be a final report.

PACIFIC SALMON COMMISSION ROSTER

Slate of Officers for 2013/2014

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Commission Chair	U.S.	Larry Rutter
Commission Vice-Chair	Can	Sue Farlinger
Fraser River Panel Chair	U.S.	Kyle Adicks
Fraser River Panel Vice-Chair	Can	Jennifer Nener
Northern Panel Chair	U.S.	Gordy Williams
Northern Panel Vice-Chair	Can.	Mel Kotyk
Southern Panel Chair	U.S.	Terry Williams
Southern Panel Vice-Chair	Can.	Andrew Thomson
Transboundary Panel Chair	U.S.	John Clark
Transboundary Panel Vice-Chair	Can.	Steve Gotch
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Technical Committee on Data Sharing - Co-Chair	U.S.	George Nandor
Technical Committee on Data Sharing - Co-Chair	Can.	Chuck Parken
Fraser River Panel Technical Committee - Co-Chair	U.S.	Gary Graves
Fraser River Panel Technical Committee - Co-Chair	Can.	Ann-Marie Huang
Northern Boundary Technical Committee - Co-Chair	U.S.	Andy Piston
Northern Boundary Technical Committee - Co-Chair	Can.	David Peacock
Transboundary Technical Committee - Co-Chair	U.S.	Scott Kelley
Transboundary Technical Committee - Co-Chair	Can.	Steve Smith
Enhancement Subcommittee of the Transboundary Technical Committee - Co-Chair	U.S.	Ron Josephson
Enhancement Subcommittee of the Transboundary Technical Committee - Co-Chair	Can.	Sean Collins
Joint Technical Committee on Chinook - Co-Chair	U.S.	John Carlile
Joint Technical Committee on Chinook - Co-Chair	Can .	Chuck Parken
Joint Technical Committee on Coho - Co-Chair	U.S.	Gary Morishima
Joint Technical Committee on Coho - Co-Chair	Can.	Arlene Tompkins
Joint Technical Committee on Chum - Co-Chair	U.S.	Jay Zischke
Joint Technical Committee on Chum - Co-Chair	Can.	Pieter van Will
Joint Technical Committee on Habitat and Restoration Co-Chair	U.S.	Thom Hooper
Joint Technical Committee on Habitat and Restoration Co-Chair	Can.	TBD
Selective Fishery Evaluation Committee - Co-Chair	U.S.	Gary Morishima
Selective Fishery Evaluation Committee - Co-Chair	Can.	Rob Houtman