Executive Secretary's Summary of Decisions

41st Annual Meeting
February 9-12, 2026
Vancouver, BC/online

The Pacific Salmon Commission held its 41st Annual Meeting on the dates above and discussed a number of topics (see attached agenda).

The Commission AGREED:

1. The minutes from January 2026 are approved as edited.
2. The proposed bylaw amendments regarding the Code of Conduct and the Technical Dispute Settlement Board process are accepted.
3. The CSC workplan for 2026 is approved.
4. The report from the Standing Committee on Finance and Administration is approved, including the proposed Commission budget for FY2026/27 and the plans for extraordinary meetings in September and December 2026.
5. The Commission accepted the work plan progress reports from Panels and Committees. Notably, by accepting the reports, the Commission is not bound to act on the recommendations in the progress reports.
6. The reports from the PSC grant programs are noted.
7. The U.S. proposal for the Taku River subsistence fishery is approved for 2026. Proposals for 2027 or future years will be submitted for Commission review.
8. Pursuant to Chapter 3, Paragraph 7 (g), at the request of the United States, the calendar year exploitation rate (CYER) limits for U.S. ISBM fisheries for the Nooksack, Skagit (Spring and Summer), Stillaguamish, and Snohomish stocks will remain consistent for 2026 with those provided by the Chinook Technical Committee (CTC) in April 2024 as adjusted for unmarked Chinook salmon using

methods described in the CTC memorandum of April 23, 2025.

9. The report from the Chinook Interface Group (CIG) is accepted, including the following actions:
    a. The Commission will engage on agenda planning for the extraordinary meetings planned to occur ahead of the October 2026 Commission meeting.
    b. The Sections will provide written comments and observations on the 5-Year Review report by July 2026, in advance of the first extraordinary bilateral meeting.
    c. The Commission approved the CIG's recommendation to establish a work group, as outlined, to explore the development of improved management tools for southern British Columbia and Washington state Chinook fisheries.

ATTENDANCE

PACIFIC SALMON COMMISSION
ANNUAL MEETING
FEBRUARY 9-12, 2026
HYATT REGENCY VANCOUVER
VANCOUVER, BRITISH COLUMBIA/ONLINE

COMMISSIONERS

UNITED STATES	CANADA
P. Anderson (Chair)	A. Classen (Vice-Chair)
W. R. Allen	S. Farlinger
J. Quan	J. McCulloch
D. Vincent-Lang	M. Ned
W. Auger	K. Connors
R. Klumph	R. Jones
M. Oatman	B. Riddell
D. Varmazis (attended virtually)	A. Thomson

Draft Agenda
41st Annual Meeting
February 9-12, 2026
Vancouver, BC/online

1. Adoption of agenda (Action item)
2. Adoption of minutes: January 2026 Post-Season Meeting (Action item)
3. Executive Secretary's report
4. Update on the process to update Annex IV
5. Grant Programs update
6. CSC Liaison Group/CSC Work Plan approval (Action item)
7. F&A Committee report/budget recommendation for FY2026/27 (Action item)
8. Discussion of Chapter 3, paragraphs 7(c)i-ii ISBM responses
9. Reports from Panels and Committees
    a. Work plan progress
        i. Northern Panel (Sandra Davies/Andy Piston)
        ii. TBR Panel (Steve Gotch/Troy Thynes)
        iii. Southern Panel (Linda Higgins/Laurie Peterson)
        iv. Fraser Panel (Adam Keizer/Jason Gobin)
        v. SFEC (Angus Straight/Ryan Lothrop)
        vi. TCDS (Michael O'Brien/Nancy Leonard)
    b. CIG report adoption (Action item; contents TBC)
10. U.S. Proposal for Commissioner Decision – 2026 Taku River Subsistence Fishery
11. Other business
12. Public comment

Annotated agenda – 41st Annual Meeting

(Executive Secretary's annotations in *italics*)

1. Adoption of Agenda (Action item)
    - *Consistent with PSC bylaws, an agenda shall be adopted by the Commission at the start of each meeting. The Commission shall not ordinarily take a decision on any item that has not been included in the draft agenda for the meeting. Where circumstances warrant, supplementary decision items may be added to the agenda with the concurrence of the Chair and Vice Chair.*
2. Approval of minutes (Action item)
    - *The Parties received draft minutes from the January 2026 Post-Season Meeting for review prior to the present meeting.*
3. Executive Secretary's Report
    - *The Executive Secretary will provide a short report on significant events since the last Commission meeting, "housekeeping" items for the current meeting, and other issues needing attention. These will include an update on Commission deliverables under Annex IV, proposed bylaw amendments to incorporate the Code of Conduct and the Technical Dispute Settlement process.*
    - *Possible action items: the Commission may adopt the bylaw amendments proposed*
4. Update on the process to update Annex IV
    - *The Parties are invited to update each other and the Secretariat on this process and specify dates/locations for any extraordinary meetings in FY2026/27, especially those contemplated for September and November 2026.*
5. Grant Programs update
    - *The Grant Program Manager (Sascha Bendt) will report on recent activities of the various PSC grant programs, with support from the MSF Fund Committee as appropriate. No action is required from the Commission.*
6. CSC Liaison Group update/CSC Work Plan approval (Action item)
    - *The CSC Liaison Group and CSC members will report on their recent deliberations, including updates on GSI Workshop planning and submission of a 2026 CSC Work Plan for Commission adoption.*

7. F&A Committee report/budget recommendation for FY2026/27 (Action item)
    - *The F&A Committee will present its annual report and budget recommendations for Commission consideration. The Commission must adopt a budget for FY2026/27.*
8. Discussion of Chapter 3, paragraph 7(c)i-ii ISBM responses
    - *Consistent with paragraph 7(c)i, Canada responded to the Commission on Jan. 8, 2026 regarding ISBM exceedance for the Snohomish Chinook stock.*
    - *In the January 2026 Post-Season meeting, the U.S. Section said it would provide follow-up questions in writing and requested that information on 2026 management changes referenced in Canada's January 8, 2026 letter be provided at the February 2026 CIG meeting. Commissioner Thomson indicated that a draft Integrated Fisheries Management Plan could be provided by that time.*
    - *Consistent with paragraph 7(c)ii, the CTC will have provided a response to the CIG about potential improved management tools to narrow deviations between CYER and CYER limits to a maximum of 10%.*
    - *Action: Under Chapter 3, paragraph 7(c), the Commission is expected to discuss the Canadian proposals and CTC analyses by the end of the current meeting.*

9. Reports from Panels and Committees
    - *As per PSC bylaws and past practice, Panel and Committee leadership shall present and discuss written summaries of their work to implement their annual work plans.*
10. U.S. Proposal for Commissioner Decision – 2026 Taku River Subsistence Fishery
    - *Following the October 2025 PSC meeting session Commissioners directed the Transboundary Panel to remove this topic from the 2026 Transboundary Panel bilateral meeting plan and associated agendas under the intent that Commissioners would arrive at a decision regarding the U.S. proposal at the 41 Annual Meeting.*

11. Other business
12. Public comment: When appropriate, and with the concurrence of the Vice-Chair, the Chair may provide time for public visitors to speak during the meeting.

Executive Secretary's Report

Annual Meeting

February 2026

Topics

- Status of Annex IV deliverables for Commission/Parties
- PSC bylaw amendments

Annex IV deliverables for Commissioners

- Executive Secretary provides regular updates on chapter provisions that apply to Commissioners or the Parties
  - Tasks/deliverables assigned to panels/committees = updates via October work plans each year
  - Table in briefing book
- February 2026: Commissioners are on time with all deliverables to date.

Proposed amendments to PSC bylaws

Code of Conduct for all delegates

- Adopted in October 2025 via Commission decision

- PSC bylaws contain other codes:
  - Technical committee member conduct (Chapter VI)
  - Secretariat conduct (Chapter X)

- Jan. 2026: Commissioners asked for proposed bylaw amendment that included new Code of Conduct for consistency and archival purposes

Proposed amendments to PSC bylaws

Technical Dispute Settlement Boards (TDSB's)

- Could also benefit from bylaw treatment
- PSC bylaws dedicate a chapter to this, but it's superficial
  - *The rules of procedure for all Technical Dispute Settlement Boards are established under Article XII and Annex III of the Pacific Salmon Treaty (Ch. VII)*
- Process for TDSB's updated in October 2024 via Commission decision; currently lives in stand-alone document
- Exec. Secretary recommends replacing old Ch. VII bylaw text with Oct. 2024 adopted process

Proposed amendments to PSC bylaws

- Mark-up of bylaws included in briefing book under agenda item 3/Executive Secretary's report
  - Bracketed/highlighted text
  - **Ch. VII**: Oct. 2024 Tech. Dispute Settlement process replacing existing superficial text
  - **Appendix III**: Oct. 2025 Code of Conduct
- Action item: Commission is invited to consider these amendments for adoption

2019-2028 Pacific Salmon Commission and Party tasks identified in amended Annex IV:

Chapters 1, 2, 3, 5, and 6[1] in chronological order

Prepared by the Executive Secretary and national representatives (updated 2/2/26)

Deadline	Chapter/para	Task (emphasis added)	Status
January 2019 - December 2028	Chapter 3, paragraph 2(c)	**[The Parties shall] implement through their respective domestic management authorities, a 10-year Chinook salmon CWT&R program that begins in 2019 that provides timely data to implement this Chapter via improvements and studies designed to achieve CTC and CWT work group data standards and guidelines.** The purpose of the CWT&R program shall be to: (i) maintain and improve the precision and accuracy of critical CWT- based statistics used by the CTC and Selective Fisheries Evaluation Committee (SFEC) in support of this Chapter, (ii) accelerate the processing of CWT data to provide CWT data for the pre-season planning process, (iii) increase the number of exploitation rate indicator stocks to represent Chinook production and fishery exploitation rates for escapement indicator stocks, (iv) examine the representativeness of exploitation rate indicator stocks for escapement indicator stocks and CWT model stocks, and (v) develop analytical tools that involve the analysis of CWT data in the implementation of this Chapter;	Ongoing: Addressed through TOR for CEII-CWT/R working group
January 2019 - December 2028	Chapter 3, paragraph 2(d)	**[The Parties shall] implement through their respective domestic management authorities, a 10-year Chinook salmon CEII program that begins in 2019 that provides timely data to implement this Chapter via objective and repeatable methodologies in data limited situations and in others via improvements and studies designed to achieve CTC data standards, guidelines, and analysis schedules.** The purpose of the CEII program includes the development of analytical tools that involve catch and escapement data in the implementation of this Chapter.	Ongoing: Addressed through TOR for CEII-CWT/R working group

[1] This table summarizes new tasks identified for the Parties or the Commission under amended chapters 1, 2, 3, 5, and 6 in Annex IV. It does not include tasks that are conditional (e.g., if a fishery's limit is exceeded, then the Commission reviews and recommends remedial action), nor does it include routine management actions (e.g., pre-season run forecast delivery, sample collection schedules, means to achieve quota share, etc.). This summary does not address tasks assigned to Panels and Committees, which will be addressed through implementation plans developed by the relevant Panels/Committees and due to the Commission at the January 2019 Post-Season meeting.

Deadline	Chapter/para	Task (emphasis added)	Status
February 2019	Chapter 1, Paragraph 3(a)(iii).	Increase CWT tag rates for Stikine River Chinook salmon to achieve CTC indicator stock standards.	Addressed in TBR Panel implementation plan
February 2019	Chapter 1, Paragraph 3(b)(iii).	Increase CWT tag rates for Taku River Chinook salmon to achieve CTC indicator stock standards.	Addressed in TBR Panel implementation plan
February 2019	Chapter 3, Appendix A, paragraph 14	**The Commission shall receive the model improvements from Phase 2 and make a decision about their implementation.**	Completed January 16, 2020 with adoption of revised Tables 1-2 and Appendix C
October 2019	Chapter 3, paragraph 5(b)	**The Parties agree that for the Chapter Period:** **b) the Commission shall establish a work group to explore issues related to Okanagan Chinook, including the establishment of management objectives, enhancement and the possible use of Okanagan Chinook as an indicator stock. The work group shall report to the Commission by October 2019.**	Work group formally created October 2019; final report and recommendations provided Oct. 2023.
December 2019	Chapter 3, paragraph 2(e)	**[The Parties shall] create and maintain a work group to discuss the programs initiated in sub-paragraphs (c) and (d)[2] by 2020**. The work group shall: (i) create opportunities for the exchange of project results and conclusions, advancements in knowledge, and discussion of the direction of these programs between the Parties, management entities, and knowledgeable individuals; (ii) review project results and conclusions from these programs and provide these reviews to the project proponents and the Commission; and (iii) identify, for the Commission, changes to projects or suggest new projects to fill gaps in knowledge.	Ongoing: Addressed through TOR for CEII-CWT/R working group
c. February 2020	Chapter 1, paragraph 3(b)(i)(B)	**The Parties shall develop a joint technical report and submit it through the Parties' respective review mechanisms with the aim of establishing a bilaterally approved maximum sustainable yield (MSY) goal for Taku River sockeye salmon prior to the 2020 fishing season.[3]**	Completed May 21, 2020; confirmed by PSC July 2020

[2] The CWT&R and CEII programs.

[3] It is not specified if the Parties will be acting through the TBR Panel or otherwise.

Deadline	Chapter/para	Task (emphasis added)	Status
c. February 2020	Chapter 1, paragraph 3(b)(i)(C)	The Taku River sockeye salmon assessment program will be reviewed by two experts (one selected by each Party) in mark-recovery estimation techniques. **The Parties[4] shall instruct these experts to make a joint recommendation to the Parties concerning improvements to the existing program including how to address inherent mark-recovery assumptions with an aim to minimize potential bias prior to the 2020 fishing season.**	Completed May 21, 2020; confirmed by PSC July 2020
February 2020	Chapter 3, paragraph 4(c)(i)	**The CTC shall recommend standards for the desired level of precision and accuracy of data required to estimate incidental fishing mortality** by February 2020. The Commission will consider the recommendation of the CTC regarding standards for the desired level of precision and accuracy of data required to estimate incidental fishing mortality.	Ongoing. IM standards report published in March 2022. The CTC is awaiting further direction from the CIG on whether additional work is needed and the CIG placed this issue on its forward agenda as of Oct. 2022.
January 2022	Chapter 2, introduction	**By the Commission post season meeting in January 2022, the Parties will have completed a review of the performance of the provisions in this Chapter.** The review will identify management actions taken to support conservation of Nass River and Skeena River sockeye, evaluate the consistency of those actions with Chapter 2 obligations and outline, where feasible, the benefit of those actions for those populations.	Completed Feb. 2023: Commission accepted joint N. Panel report including areas for further work
January 2022	Chapter 3, paragraph 2(a) footnote #9	The model configuration from March 2018 (CLB1804) shall be used to establish a baseline run. **The Parties shall document specific concerns or inconsistencies between that configuration and the management regime in 2018. The Parties agree that in order to complete this documentation, the Commission shall direct the CIG to work with the CTC to develop a draft outline on how to document specific concerns or inconsistencies between that configuration and the management regime in 2018. The Commission will review this draft outline and direct the CTC how to prepare the report.**	Completed Feb. 2022 via Commission acceptance of CIG report and recommended change in footnote 9.

[4] It is not specified if the Parties will be acting through the TBR Panel or otherwise.

Deadline	Chapter/para	Task (emphasis added)	Status
Unspecified	Chapter 5, paragraph 11(b)	Each Party may: request additional reductions in ERs to meet critical conservation concerns not adequately addressed by the ER caps. The Southern Panel shall develop bilateral guidance to indicate how this could be implemented in a responsible and timely manner during a Party's domestic preseason planning. **The guidance shall also include steps and timelines for communication with Commissioners. This process will require Commission approval before implementation**	Completed Feb. 2023 via acceptance of S. Panel work plan progress report and its proposed guidance on para. 11.
Unspecified	Chapter 5, paragraph 11(c)	Any party may request increases in the MU-specific ER caps determined under paragraphs 9(b) to (d) if the Party can demonstrate that the ER caps prevent it from accessing its own stocks to meet its fishery management objectives or from harvesting other allocations provided under this Treaty. The Southern Panel shall develop bilateral guidance to indicate how this could be implemented in a responsible and timely manner during a Party's domestic preseason planning. **The guidance shall also include steps and timelines for communication with Commissioners. This process will require Commission approval before implementation**	Completed Feb. 2023 via acceptance of S. Panel work plan progress report and its proposed guidance on para. 11.
January 2022, 2025, 2028	Chapter 5, paragraph 12	**The Parties shall review this Plan no later than three years after this Chapter enters into force and every three years after that date, unless otherwise specified by the Southern Panel**. The review shall include an assessment of the effectiveness of this Plan in achieving the management objectives of the Parties and any other issues either Party wants to raise, including, but not limited to: (a) whether the ER caps established under paragraphs 9(b) to (d) have prevented either Party from accessing its own stocks to meet its fishery management objectives or from harvesting other allocations that are provided under this Treaty; and (b) issues associated with the procedures and methods employed to estimate and account for total coho mortalities, including those incurred in mark-selective fisheries. **The Parties shall modify this Plan, if necessary, based on the review and the need to incorporate results of bilateral technical developments** (e.g., to establish criteria to define MUs and to biologically determine allowable ERs, to develop a common methodology for measuring ERs in Canadian and U.S. fisheries, development of bilateral management planning tools, etc.).	Completed; review document circulated from Exec Secretary via email on Sept. 19, 2025

Deadline	Chapter/para	Task (emphasis added)	Status
January 2022	Chapter 2, paragraph 12	The U.S. agrees to complete a harvest pattern analysis of the pink salmon fishery in District 104 salmon that shall be peer-reviewed by an independent contractor and then submitted to the Committee and the Northern Panel for further review.	Complete: N. Panel agreed bilaterally; published as PSC Tech Report June 2021
c. December 2022	Chapter 3, paragraph 5(e)	**The Commission shall use the Calendar Year Exploitation Rate (CYER) metric to monitor the total mortality in ISBM fisheries and shall review the CYER metric during the year 2022 to make a decision on its continued application or the use of an alternative metric**. In the absence of a Commission decision to use an alternative metric, the use of the CYER metric continues.	Commission agreed in Feb. 2022 that no alternative metrics are available for review, but could be reviewed in the future if necessary.
c. January 2023, c. January 2026	Chapter 3, paragraphs 7(d-e)	**(d) [The Parties agree] to conduct up to two reviews of the CPUE-based approach to decide whether to continue to use this method to determine the catch limit for the SEAK AABM fishery, to return back to use of the Commission Chinook model, or to adopt an alternative method as determined by the Parties, to determine pre-season estimates of the aggregate AI of Chinook stocks available to the SEAK troll fishery and the relationship between the catch and AIs specified in Table 1.** The first review shall occur as soon as practical after the 2022 first post-season AI is calculated and the second review shall occur as soon as practical after the 2025 first post-season AI is calculated. The Commission decision shall be based on the outcome of: (i) a comparison of cumulative actual catch and the cumulative post- season catch limit from the Commission Chinook model, (ii) a comparison of the cumulative performance of the CPUE-based catch limit and the pre-season catch limit from the Commission Chinook model to predict the catch limit estimated from the first post-season calibration of the Commission Chinook model (model error), and a comparison of the abundance tier selected by use of the CPUE method and the abundance tier that is selected by use of the pre-season calibration of the Commission Chinook model with the abundance tier selected from the first post-season calibration derived from the Commission Chinook model; **(e) to consider the results of reviews described in sub-paragraph (d), immediately, and decide whether to continue to use the CPUE method for the SEAK AABM fishery**. Unless the Commission decides to continue to use the CPUE-based approach or adopt an alternative method, the Commission Chinook model estimate of the AI and Table 1 shall be used to determine the annual pre-season and post-season catch limits;	CPUE method review completed, discussed by CIG and Commission in Oct. 2023. Commission agreed to suspend use of the CPUE-based approach after the 2022 season. New multi-variate model 4.3 used to set SEAK catch limits for 2023 season. In Jan. 2024, Parties did not reach agreement on an alternative methodology for setting the SEAK AABM catch limit. It was instead agreed that pursuant to paragraph 7(d) and 7(e), the Commission returns to the use of the Commission Chinook Model and Table 1 for SEAK AABM fisheries, and approved the application of the 10% exceedance rule that defines the triggers for 7(b)(i) and (ii).

Deadline	Chapter/para	Task (emphasis added)	Status
January 2023	Chapter 3, paragraph 7(h) and Appendix A paragraph 14	**The Commission will consider the draft outline of the five-year review provided by the CTC and will provide direction on how to proceed with preparing the report.**	Report completed in January 2026.
December 2023	Chapter 1, paragraph 3(a)(ii)	The Parties shall develop and implement an abundance-based approach to managing coho salmon on the Stikine River. Assessment programs need to be further developed before a biologically based escapement goal can be established. **By 2024, the Parties shall review the progress on this obligation**.	Underway via the TBR Panel with updates in annual work plans
c. December 2023	Chapter 1, para 5	**The Parties shall review midway through the Chapter Period, or other time mutually decided by the Parties, the current Chapter and determine if they want to renew this Chapter for an additional period of time.**[5]	TBR Panel recommends no changes to Chapter 1: to be reflected in Chapter 1 implementation plan.
By December 2024	Chapter 1, paragraph 3(a)(i)(c). Appendix to Annex IV, Chapter 1	**Expand and initiate new bilateral sockeye salmon enhancement programs in the Canadian portion of the Stikine River watershed.**	TBR Panel reported in October 2024 that initial exploratory evaluation activities are underway, limited progress to date.
January 2025	Chapter 3, paragraph 7(h)	In January 2025, **the Commission shall review the report [from the CTC on its 5-year review] to identify any appropriate modifications to this Chapter to improve its implementation.**	Report completed in January 2026 for review (as per

[5] Chapter does not specify how this review will be conducted, including the respective roles of the Commission and TBR Panel.

Deadline	Chapter/para	Task (emphasis added)	Status
			Commission-postponed deadline)
December 2026	Chapter 2, paragraph 5	**The Parties agree to review[6] Annex IV, Chapter 2, a minimum of two years prior to its expiration with a view to renewing it**. If such renewal is not successfully concluded prior to the expiration date, then overages and underages must be carried forward to the next Chapter period.	Ongoing via Northern Panel discussion of Chapter 2 updates for 2029
Unspecified	Chapter 1, paragraph 7	the Parties[7] shall consult with a view to developing, for the transboundary sections of the Columbia River, a more practicable arrangement for consultation and setting escapement targets than those specified in Article VII, paragraphs 2 and 3.	Ongoing since October 2019 through establishment of the Okanagan Work Group
Unspecified	Chapter 3, Appendix A, paragraph 14	**The Commission shall receive the model improvements from Phase 3 and make a decision about their implementation.**	Commission agreed in February 2022 a) these will not be available in January 2023, b) they remain a high priority; and c) they will be delayed due to higher priority tasks. CTC has not developed work group for Phase 3 improvements.

[6] Chapter does not specify how this review will be conducted, including the respective roles of the Commission and the Northern Panel.
[7] It is not specified how this consultation will be conducted, including the respective roles of the Commission and TBR Panel.

Deadline	Chapter/para	Task (emphasis added)	Status
Ongoing	Chapter 3, paragraph 4(a-d)	The Parties agree: (a) **to monitor and manage incidental fishing mortality in AABM fisheries** with the intent of not exceeding levels as specified in paragraph 4(f) during the Chapter Period; (b) that landed catch and incidental mortalities in ISBM fisheries are limited according to paragraph 5; (c) **to provide estimates of incidental mortality of Chinook salmon in all ISBM and AABM fisheries**. ISBM fisheries have total mortality constraints (catch plus associated incidental mortality) while AABM fisheries have catch limits. The CTC shall recommend standards for the desired level of precision and accuracy of data required to estimate incidental fishing mortality by February 2020 [see Commission task above]; (d) **to provide estimates of encounters of Chinook released in fisheries that, when multiplied by assumed gear-specific mortality rates, provide estimates of incidental mortality that are used in sub-paragraph (c).** These estimates: (i) shall be developed by the Parties annually from direct observation of fisheries, or shall be calculated from a predictable relationship between encounters and landed catch based on a time series of direct observations of fisheries reviewed by the CTC;	Paras c and d estimates presented in TCCHINOOK 21-05 and 21-04. IM standards report discussed by CIG in Feb. 2022. Further review pending via CIG forward agenda.
Ongoing	Chapter 3, paragraph 4(g)(v)	…subject to the availability of funds, the U.S. shall establish a Mark Selective Fishery Fund (Fund). **The Fund shall be administered by the Commission** to assist fishery management agencies with equipment and operations, as needed, to mass-mark hatchery produced Chinook salmon, to estimate incidental mortality, and to maintain and improve the ability to estimate exploitation rates on Chinook salmon indicator stocks that are encountered in MSF, including improvements and development of bilateral analytical tools. **The Commission shall adopt procedures to solicit proposals** from U.S. and Canadian management entities for the use of the Fund, be advised on the merits of proposals by specialists as it determines appropriate, and make funding decisions.	MSF Fund and committee established Oct. 2020

Deadline	Chapter/para	Task (emphasis added)	Status
Ongoing	Attachment E, paragraph 2	The Parties request the Commission to: (a) maintain a page on its web site that documents citations, references, or links to publicly accessible information published by the Parties, management entities, or others related to the habitat protection and restoration projects and programs that are important to Pacific salmon stocks subject to this Treaty; and, (b) periodically review and discuss information on the habitat of naturally spawning stocks subject to this Treaty that cannot be restored through harvest controls alone, any non-fishing factors that affect the safe passage or survival of salmon, options for addressing non-fishing constraints and restoring optimum production, and progress of the Parties' efforts to achieve the objectives for the stocks under this Treaty.	Website update complete

PACIFIC SALMON COMMISSION

BYLAWS

As amended January 27, 2026

PACIFIC SALMON COMMISSION

BYLAWS

TABLE OF CONTENTS

CHAPTER I - AUTHORITY AND PURPOSE

SECTION A. AUTHORITY AND PURPOSE

Rule 1 Authority.

These bylaws are adopted by the Pacific Salmon Commission[1] pursuant to Article II paragraph 7 of the Treaty between the Government of Canada and the Government of the United States of America concerning Pacific Salmon (Pacific Salmon Treaty, as amended).

Rule 2 Purpose.

These bylaws provide for the exercise of the functions and conduct of meetings of the Pacific Salmon Commission and its subsidiary bodies. No bylaw, procedural rule, policy, or practice shall have the intent or be interpreted to alter, condition, or remove the responsibility of the Commission to make timely determinations pursuant to Article II, paragraph 8 of the Treaty.

CHAPTER II - RULES OF PROCEDURE THE PACIFIC SALMON COMMISSION

These rules of procedure apply to the Pacific Salmon Commission established under Article II paragraph 1 of the Pacific Salmon Treaty.

SECTION A. REPRESENTATION

Rule 1 Attendance at Open Meetings.

All meetings of the Commission are open to the public unless designated as an Executive Session by the Chair and the Vice-Chair of the Commission.

Rule 2 Convening of Executive Sessions.

Meetings may be recessed, or convened in whole or in part, for executive sessions by a determination of the Chair or the Vice Chair that any of the following concerns could arise from discussion during an open meeting:

(a) Any item that could jeopardize the success of the negotiation (e.g., development or evaluation of fishery regimes and proposals, or the conduct of negotiations on final fishery regimes);

(b) Personnel or administrative actions; or

(c) Other matters that may arise that are deemed to be of a sensitive nature.

[1] See Appendix I for a glossary of terms used throughout these bylaws.

Rule 3 Attendance at Executive Sessions.

At executive sessions of the Pacific Salmon Commission, attendance shall be limited to Commissioners, Alternate Commissioners, invited Secretariat staff, and advisors from each national section as may be agreed by the Chair and Vice-Chair.

Rule 4 Convening *In Camera* Sessions.

The Chair and Vice-Chair may agree to designate a meeting of the Commission as *in camera*. During such sessions Commissioners and Alternate Commissioners will convene with only those Secretariat staff or advisors identified by the Chair and Vice-Chair. No recording or minutes will be taken during *in camera* sessions, but reporting of any outcomes will be consistent with Rule 26.

Rule 5 Establishment of Working Groups.

The Commission may establish working groups to a) recommend actions on specified issues or b) liaise with subsidiary bodies, and c) report to the Commission as requested. Such working groups do not have authority to make decisions on behalf of the Commission. The size, reporting requirements, and terms of reference for such groups shall be decided by the Commission. Members shall include Commissioners and invited experts as needed. Meetings of any such working groups are closed to the public unless otherwise decided by the Commission.

Rule 6 Notification of Intent to Attend.

Each National Correspondent shall notify the Executive Secretary as far as possible in advance of any meeting, the names of any Commissioners and Alternate Commissioners attending the meeting and identify any experts and advisors who will accompany them.

Rule 7 Request for Advice and Support.

The Chair or the Vice-Chair may request that members of the subsidiary bodies attend Commission meetings.

Rule 8 Convening of Meetings.

The Chair shall convene the annual meetings of the Commission and such other meetings requested by the Chair, Vice-Chair, or the Parties.

Rule 9 Location of Meetings.

The official annual meeting of the Commission shall be alternated between Canada and the United States annually, unless agreed to by the Parties. due to extenuating circumstances.

SECTION B. VOTING REQUIREMENTS

Rule 10 Decision-Making.

A decision or recommendation of the Commission shall be made only with the approval of both United States and Canadian sections. Each national section shall inform the Commission of its vote.

Rule 11 Decision-Making for Non-Agenda Items.

The Commission shall not ordinarily take a decision on any item that has not been included in the draft agenda for the meeting. Where circumstances warrant, supplementary decision items may be added to the agenda with the concurrence of each National Section.

Rule 12 Decisions When In-Person Participation is Not Practicable.

Between meetings of the Commission, and in cases of special necessity determined by the Chair in consultation with the Vice-Chair, a decision may be taken by mail, teleconference, or other means of electronic communication. The Executive Secretary shall promptly notify the Commissioners and Alternate Commissioners of the results of the decisions. A report of such meetings shall be prepared and distributed in accordance with Rule 26 of this chapter.

SECTION C. CHAIR AND VICE-CHAIR

Rule 13 Selection.

(a) Prior to adjournment of the Fall meeting each year, the Commission shall approve a new Chair and Vice-Chair to take office for a twelve month term ending on adjournment of the next Fall meeting, with annual rotation of the Chair between National Sections.

(b) Whenever the Chair is unable to serve, his/her national section shall designate another Commissioner or Alternate Commissioner to assume the powers and responsibilities of the Chair for the relevant time period.

Rule 14 Powers and Responsibilities of Chair.

The Chair shall have the following powers and responsibilities:

(a) to serve as principal representative of the Commission;

(b) to preside at each meeting of the Commission;

(c) to make rulings on points of order raised at meetings of the Commission;

(d) to officially receive reports and recommendations from the subsidiary bodies and to forward instructions and other communications to the Chairs of those bodies;

(e) to sign, on behalf of the Commission, the reports of each meeting of the Commission;

(f) to direct subsidiary body Chairs to convene meetings;

(g) to disseminate to the Commission and subsidiary bodies reports received;

(h) to exercise other powers and responsibilities as provided in these bylaws and give such directions to the Executive Secretary as will ensure that the business of the Commission is carried out effectively and in accordance with its decisions.

Rule 15 Powers and Responsibilities of Vice-Chair.

The Vice- Chair shall work with the Chair to conduct the Commission's business as required.

SECTION D. PREPARATION FOR MEETINGS

Rule 16 Provisional Agendas.

The Executive Secretary, with the concurrence of the Chair and the Vice Chair, shall prepare a provisional agenda for each meeting of the Commission. Unless otherwise agreed, the provisional agenda shall be transmitted to the National Correspondents whenever practicable no later than 21 days in advance of the meeting. The agenda shall specify whether the meeting remains open or may be conducted in whole or in part in Executive Session.

Rule 17 Additions to Agendas.

Any Commissioner or Alternate Commissioner may propose supplementary items by informing the Executive Secretary, through the respective National Correspondent.

Rule 18 Draft Agenda.

The Executive Secretary, with the concurrence of the Chair and the Vice-Chair, shall prepare the draft agenda for the meeting and circulate it to all Commissioners and Alternate Commissioners whenever practicable but no later than 7 days in advance of the meeting unless otherwise agreed.

Rule 19 Adoption of Agendas.

An agenda shall be adopted by the Commission at the start of each meeting.

Rule 20 Responsibility for Meeting Arrangements.

The Executive Secretary shall make all necessary arrangements for meetings of the Commission.

Rule 21 Meeting Expenses.

The budget of the Secretariat shall, unless otherwise specified, be responsible only for costs of meeting logistics required for effective conduct of the meetings of the Commission.

SECTION E. CONDUCT OF BUSINESS

Rule 22 Maintenance of Proper Order

(a) The Chair shall ensure the observance of these Rules and the maintenance of proper order.

(b) The Chair shall normally call upon speakers in the order in which they signify their desire to speak. The Chair may call a speaker to order if his/her remarks are not relevant to the subject under discussion.

Rule 23 Participation by Public Visitors.

When appropriate, and with the concurrence of the Vice-Chair, the Chair may provide time for public visitors to speak during the meeting.

Rule 24 Proposals for Commission Consideration.

Either National Section or any subsidiary body may make a proposal for consideration by the Commission. Proposals ordinarily shall be submitted in writing to the Chair, who shall circulate copies to all Commissioners and Alternate Commissioners via the Executive Secretary. In general, no proposal shall be put to a decision at any meeting of the Commission unless copies have been distributed to all Commissioners and Alternate Commissioners a reasonable time in advance. The Chair, however, with the concurrence of the Vice-Chair, may permit decisions on such proposals to be taken in accordance with Rules 10 and 11.

Rule 25 Caucus.

Any Commissioner or Alternate Commissioner may call for a recess to caucus or for other appropriate purpose and the Chair shall provide for a recess immediately.

Rule 26 Reporting

(a) Minutes of each Executive or open meeting of the Commission shall be prepared by the Executive Secretary and shall include all decisions and recommendations adopted at the meeting. All attendant documents shall be considered a part of the minutes. In the event that an in camera meeting of the Commission is held, any decision from that session which will impact any action by the Commission, in whole or in part, must be further discussed and approved in a subsequent Executive or Open Meeting and the final decision become part of any aforementioned meeting minutes. Draft minutes shall be considered by the Commission as soon as possible following the meeting. Minutes shall be made final upon approval of the Commission but must be approved no later than 90 days following the original meeting. Final minutes shall be signed by the Chair and Vice-Chair and circulated to all Commissioners and Alternate Commissioners and, when appropriate, to the PSC subsidiary bodies. Minutes of Commission meetings shall be available to the public upon request, subject to paragraph c below.

(b) The Executive Secretary shall issue a summary report of each meeting for the PSC website and other public distribution immediately following each Commission meeting. That summary

report shall include all decisions and recommendations adopted at the meeting and all attendant documents, subject to paragraph c below.

(c) The Chair, with the concurrence of the Vice-Chair, may restrict access to reports or sections thereof or take other measures necessary to ensure confidentiality. Copies will be kept with the permanent Commission records.

(d) An annual report of the Commission shall be prepared by the Executive Secretary following the end of each fiscal year.

SECTION F. WAIVER OF PRIVILEGES AND IMMUNITIES OF THE PACIFIC SALMON COMMISSION

The Treaty Between The Government Of Canada And The Government Of The United States Of America Concerning Pacific Salmon provides that the "immunities and privileges which the Commission and its officers shall enjoy in the territory of a Party shall be subject to agreement between the Commission and the Party concerned." Art. II(2).

In Canada, the Commission is granted Privileges and Immunities pursuant to section 3 of the Privileges and Immunities (International Organizations) Act (see Order P.C. 1986-1083, May 1, 1986 Pacific Salmon Commission Privileges and Immunities Order regarding the specific Privileges and Immunities extended to the Commission).

In the United States, the Commission has been designated as a public international organization under the International Organizations Immunities Act, 22 U.S.C. 288 et seq.,and enjoys the privileges and immunities available thereunder (see Executive Order EO 12567, Oct. 2, 1986).

Rule 27 Waiver of Immunity

A. The privileges, exemptions, and (a) immunities granted by the Parties to the archives, property, and assets of the Commission and (b) immunities enjoyed by the officers, and employees of the Commission will be waived only with the prior express consent of the Commission. The Executive Secretary may act on behalf of the Commission in the circumstances noted below, but, as appropriate, will consult with the Chair and/or Vice Chair as to whether a particular matter requires full Commission attention.

B. When the waiver requested pertains to a law enforcement investigation or judicial inquiry or other sensitive matter, the full Commission shall convene either in person or by electronic means to discuss the matter.

C. When the waiver requested pertains to personal matters of personnel, waiver of archival inviolability to permit the furnishing of records pertaining to the individual will, where appropriate, be provided by the Executive Secretary, unless she or he determines that the particular circumstances warrant review by the Commission. Where the Executive Secretary is him or herself implicated in the waiver request, the matter will be brought to the Chair and Vice Chair to consider.

D. Requests for waiver of immunity shall include sufficient factual detail to afford an adequate basis upon which to act. In the usual case, such requests shall be submitted to the Executive Secretary, who, as appropriate, shall provide it to the Commission for consideration.

(a) The following guidelines shall apply to consideration of requests for waiver of immunity:

i. The key factor in determining whether to consent is the potential impact upon the interests of the Commission.

ii. If the interests of the Commission are not likely to be injured as a result of the waiver, there will be a presumption in favour of waiver if doing so will serve the interests of justice or scientific advancement.

iii. Any waiver granted pursuant to Rule 27 shall be transmitted in writing to the Commission by the Chairman as quickly as possible. The waiver shall specify any limits on its duration and scope.

SECTION G. MODIFICATIONS TO COMMISSION RULES OF PROCEDURE

Rule 28 Amendments.

The Rules of Procedure for the Commission may be modified by the Commission in accordance with Chapter XI of these bylaws.

CHAPTER III - RULES OF PROCEDURE PANELS

These rules of procedure apply to all Panels of the Pacific Salmon Commission established under Article II paragraph 18 of the Pacific Salmon Treaty except the Yukon River Panel. The Parties have authorized the Yukon River Panel to establish its own rules of procedure.

SECTION A. REPRESENTATION

Rule 1 Attendance at Open Meetings.

All meetings of the Panels are open to the public unless otherwise designated by the Chair or the Vice-Chair of the respective panel.

Rule 2 Convening of Executive Sessions.

Meetings may be recessed, or convened in whole or in part, for executive sessions by a determination of the Chair or the Vice-Chair that any of the following concerns could arise from discussion during an open meeting:

(a) Any item that could jeopardize the success of the negotiation (e.g., development or evaluation of fishery regimes and proposals, or the conduct of negotiations on final fishery regimes);

(b) personnel or administrative actions; or

(c) other matters that may arise that are deemed to be of a sensitive nature

Rule 3 Attendance at Executive Sessions.

At executive sessions, attendance shall be limited to Panel members, alternate Panel members, any invited Secretariat staff, and experts and advisors as may be agreed by the Chair and Vice-Chair. Commissioners and Alternates may attend any proceedings conducted by the Panels.

Rule 4 Notification of Intent to Attend.

Each National Section shall provide the Secretariat the names of any Panel Members and other delegates attending the meeting as far as possible in advance.

Rule 5 Request for Technical Support.

The Chair or the Vice-Chair each may request that members of the joint technical committees attend Panel meetings.

Rule 6 Convening of Meetings.

The Chair shall convene the annual meetings of the Panel and such other meetings consistent with the annual Panel work plan approved by the Commission, or as requested by the Chair of the Commission.

Rule 7 Convening of Executive Sessions.

Meetings of a Panel may be called into executive session by the Chair or the Vice-Chair after consultation with each other.

SECTION B. VOTING REQUIREMENTS

Rule 8 Decision-Making.

A decision or recommendation of a Panel or a joint decision of two or more Panels shall be made only with the approval of both United States and Canadian Sections, unless otherwise provided in the Treaty. Each National Section shall inform the Panel of its vote.

Rule 9 Decision-Making for Non-Agenda Items.

Except with the concurrence of each national section, the Panels shall not take a decision on any proposal which does not appear as an item on the draft agenda for the meeting.

Rule 10 Decisions When In-Person Participation is Not Practicable.

Between meetings of the Panels and in cases of special necessity determined by the Chair or Vice-Chair, decisions may be taken by mail, teleconference, or electronic communication. The

Executive Secretary shall facilitate notification to the Panel members and alternates of the results of such decisions.

SECTION C. CHAIR AND VICE-CHAIR

Rule 11 Selection

(a) At the first meeting of a Panel, one section shall select from its members a Panel Chair and the other section shall select from its members a Vice-Chair. Each will remain in office until adjournment of the Fall meeting of the Commission when new officers will be approved to take office for a twelve month term ending on adjournment of the next fall meeting, with annual rotation thereafter. If either office becomes vacant before the end of a term, the appropriate section shall select a replacement for the remainder of the term.

(b) Whenever the Chair is unable to serve, his/her national section shall designate another Panel member or alternate Panel member to assume the powers and responsibilities of the Chair for the relevant period of time.

Rule 12 Meetings of two or more Panels.

At the first joint meeting of two or more Panels, the procedures for selecting the Chair and Vice-Chair described in Rule 10 shall apply. The Chairman designated in the Fall meeting will remain in office until adjournment of the Fall meeting of the Commission, when new officers will be approved to take office for a twelve month term ending on adjournment of the next Fall meeting, with annual rotation thereafter.

Rule 13 Powers and Responsibilities of Chair.

The Chair shall have the following powers and responsibilities:

(a) preside at each meeting of the Panel;

(b) make rulings on points of order raised at meetings of the Panel;

(c) officially receive and distribute reports and recommendations;

(d) officially forward instructions and other relevant communications to the Co-Chairs of the joint technical committees;

(e) initiate, and with the concurrence of the appropriate Panel Chairs, schedule joint Panel meetings;

(f) report to the Commission decisions and recommendations of the Panel;

(g) exercise such other powers and responsibilities as provided in these bylaws and make such decisions as will ensure that the business of the Panel is carried out effectively and in accordance with its decisions.

Rule 14 Powers and Responsibilities of Vice-Chair.

The Vice-Chair shall have the following powers and responsibilities:

(a) request Panel meetings by notice to the Chair;

(b) request joint Panel meetings by notice to the Chair;

(c) assist in the preparation of Panel agendas.

(d) In executive sessions the Vice-Chair shall, in the absence of Secretariat staff, be responsible for maintaining minutes of the proceedings as appropriate.

SECTION D. PREPARATION FOR MEETINGS

Rule 15 Provisional Agendas.

The Chair and the Vice-Chair will prepare a provisional agenda for each meeting of the Panel and transmit it to all Panel members and alternates as soon as possible before the meeting. The agenda may specify whether the meeting will be open and whether part or all of the meeting will be held in executive session.

Rule 16 Additions to Agenda.

Any Panel member or alternate Panel member may propose supplementary items by informing the Chair and Vice Chair as soon as possible before the meeting.

Rule 17 Draft Agenda.

The Chair and the Vice-Chair, shall prepare the draft agenda for the meeting, including the supplementary items, and circulate it to all Panel members, alternates, and the Secretariat as soon as possible before the meeting.

Rule 18 Adoption of Agendas.

The Panel shall adopt the agenda at the start of each meeting.

Rule 19 Meeting Expenses.

The budget of the Secretariat shall, unless otherwise specified, be responsible only for costs of meeting logistics required for effective conduct of the meetings of the Panels.

SECTION E. CONDUCT OF BUSINESS

Rule 20 Applicability of Rules to Joint Panels.

Except where otherwise provided in these Rules of Procedure, rules applicable to Panels in general apply to joint Panels.

Rule 21 Maintenance of Proper Order

(a) The Chair shall ensure the observance of these rules and the maintenance of proper order.

(b) No person may address the meeting without having previously obtained the permission of the Chair. The Chair shall call upon speakers in the order in which they signify their desire to speak or in such other order as may be agreed by the Chair and Vice-Chair. The Chair may call a speaker to order if his/her remarks are not relevant to the subject under discussion.

Rule 22 Participation by Public Visitors.

Public visitors will normally be provided opportunities only to listen and watch presentations during Panel meetings. When appropriate, and with the concurrence of the Vice-Chair, the Chair may provide time for public visitors to speak during the meeting. Meetings of any Panel working groups are closed to the public.

Rule 23 Proposals for Panel Consideration.

(a) Proposals ordinarily shall be submitted in writing to the Chair, who shall circulate copies to all members.

(b) Fraser River Panel. In order to expedite the day-to-day in-season management responsibilities of the Fraser River Panel, proposals or recommendations may, where practicable, be submitted in writing to the Chair twenty-four hours in advance of or during an in-season meeting. The Chair shall circulate copies of such proposals to all members in the manner considered most appropriate. However, whenever deemed necessary, meetings or telephone conferences may be convened by the Chair on less than twenty-four hours' notice.

Rule 24 Caucus.

Any Panel member may call for a recess for caucus or other appropriate purpose, and the Chair or Vice-Chair shall provide for a recess immediately.

Rule 25 Reporting.

A summary report of each meeting of the Panel shall be prepared and shall include all decisions and recommendations adopted at the meeting. The Panel Chair and Vice-Chair may be called upon to make a Panel report to the Commissioners.

SECTION F. MODIFICATIONS TO PANEL RULES OF PROCEDURE

Rule 26 Amendments.

The Rules of Procedure for Panels may be modified following advance notice on the agenda for a Panel meeting, and upon concurring decisions by each of the affected Panels and approval of the Commission in accordance with Chapter XI of these bylaws.

CHAPTER IV - RULES OF PROCEDURE - COMMITTEES

These rules of procedure apply to all committees (other than technical committees) of the Pacific Salmon Commission established pursuant to Article II paragraph 17 of the Pacific Salmon Treaty. These rules of procedure do not apply to the Restoration and Enhancement Fund Committees, which the Parties have directed to establish their own bylaws and rules of procedure.

Rule 1 Establishment of Committees.

The Commission shall establish a committee on Finance and Administration, a Committee on Scientific Cooperation, and such other committees as it may deem appropriate. All Committee meetings are closed to the public, unless otherwise designated by the Chair and the Vice-Chair of the Committee.

Rule 2 Duties and Responsibilities.

The Commission shall define the duties and responsibilities of each committee upon its establishment and may assign it tasks. The Commission shall review the membership and purpose of committees from time to time.

Rule 3 Membership.

Each committee established by the Commission, other than the Scientific Cooperation Committee, shall consist of representatives of each national section as the Commission deems appropriate, of which at least one representative of each national section shall be a Commissioner or Alternate Commissioner. Commissioners, Alternate Commissioners, and experts or advisers may serve as representatives. Commissioners and Alternates may attend any Committee meeting.

Rule 4 Representation.

Each National Correspondent shall inform the Commission of the names of representatives to a committee and shall notify the Commission of any change.

Rule 5 Selection.

Each national section shall designate a committee member as Section Chair. At the first committee meeting, one of the Section Chairs will be designated Committee Chair with the other serving as Vice-Chair. The Chair/Vice-Chair will remain in office until adjournment of the Fall meeting of the Commission, when new officers will be approved to take office for a twelve month term ending on adjournment of the next Fall meeting, with annual rotation thereafter.

Rule 6 Decisions and Recommendations.

Any decision or recommendation of a committee shall be taken upon consensus of the members of such committee. Decisions in Committees shall normally be made by consensus (defined as the absence of meaningful dissent among the members). While joining consensus, members may nonetheless ask for certain remarks to be included in the meeting record. If consensus cannot be

attained, the Committee shall report differing views as necessary, identifying degrees of difference but not the individuals holding particular opinions.

Rule 7 Role of the Executive Secretary.

The Executive Secretary shall be an ex-officio member of each committee and shall be responsible for maintaining minutes and reports of committee meetings, as appropriate. The Executive Secretary will submit a copy of the final meeting report to the Chair and Vice-Chair for their signatures and return to the Secretariat for distribution. Copies will be kept with the permanent Commission records. The Executive Secretary or their designee shall make all necessary arrangements for meetings of Committees.

Rule 8 Meeting Expenses.

The budget of the Secretariat shall, unless otherwise specified, be responsible only for costs of meeting logistics required for effective conduct of the meetings of the Committees.

Rule 9 Reporting.

Committees shall report any decisions or recommendations to the Commission.

CHAPTER V - RULES OF PROCEDURE - JOINT TECHNICAL COMMITTEES

These rules of procedure apply to all joint technical committees of the Pacific Salmon Commission. Given its unique role, the Yukon River Joint Technical Committee shall develop and amend its own rules of procedure subject to approval by the Yukon River Panel.

Rule 1 Establishment of Joint Technical Committees.

The Commission shall establish joint technical committees required by Annexes to the Pacific Salmon Treaty, and such other joint technical committees as the Commission from time to time may deem appropriate. Meetings of the Committee are open to the public unless otherwise designated by the Co-chairs. Public visitors will be provided opportunities only to listen and watch presentations during open Committee meetings. Meetings of Committee working groups are closed to the public.

Rule 2 Duties and Responsibilities.

The duties and responsibilities of each joint technical committee shall be defined by the relevant Annexes to the Pacific Salmon Treaty and as established from time to time by the Commission, including:

(a) prepare post-season reports, note areas of disagreement, and forward the same to the Commission;

(b) provide analyses and recommendations on proposals for new fishing regimes developed by the Commission or Panels or on other technical issues;

(c) identify research needs for review and consideration by the Commission; and

(d) perform such other tasks as the Commission may assign.

Rule 3 Membership.

Each joint technical committee shall consist of technical representatives designated by each national section of the Commission. The Co-Chairs of a joint technical committee, on receipt of prior approval of the Commission, may invite the participation of specialists who are not members of the joint technical committees, when appropriate. Commissioners and Alternates may attend any Joint Technical Committee Meeting.

Rule 4 Representation.

Each national section shall inform the Commission of the names of its representatives to a joint technical committee and shall notify the Commission of any change.

Rule 5 Selection.

Each national section shall designate one of its committee members as Section Chair. The Section Chairs will serve as Co-Chairs of the joint technical committee.

Rule 6 Expenses.

Necessary travel costs incurred by members of joint technical committees shall be paid for by each Party for its respective members. Subject to the prior approval of the Commission, costs of specialists who are not members of a joint technical committee, but who are asked to participate in the committee's deliberations by the Co-Chairs, shall be borne by the Pacific Salmon Commission.

Rule 7 Convening Meetings.

Meetings of joint technical committees shall be authorized as follows:

(a) meetings are to be authorized via the submission of annual work plans for Commission approval;

(b) within constraints approved by the Commission in annual work plans, the Co-Chairs are free to schedule meetings as necessary to perform their responsibilities.

Rule 8 Convening of Executive Sessions.

Meetings may be recessed, or convened in whole or in part, for executive sessions by a determination of the co-chairs that any of the following concerns could arise from discussion during an open meeting:

(a) Any item that could jeopardize the success of the negotiation (e.g., development or evaluation of fishery regimes and proposals, or the conduct of negotiations on final fishery regimes);

(b) personnel or administrative actions; or

(c) other matters that may arise that are deemed to be of a sensitive nature

Rule 9 Attendance at Executive Sessions.

At executive sessions, attendance shall be limited to Committee members, alternate Committee members, any invited Secretariat staff, and experts and advisors as may be agreed by the co-chairs. Commissioners and Alternates may attend any proceedings conducted by the Committees.

Rule 10 Meeting Expenses.

The budget of the Secretariat shall, unless otherwise specified, be responsible only for costs of meeting logistics required for effective conduct of the meetings of the joint technical committees.

Rule 11 Decisions and Recommendations.

Joint technical committees shall conduct their business according to guidelines for the conduct of technical committee members provided in Chapter VI. Decisions in joint technical committees shall normally be made by consensus (defined as the absence of meaningful dissent among members). However, the Commission prioritizes timeliness over consensus in the formulation of findings and recommendations. While joining consensus, members may nonetheless ask to have certain non-conforming views included in the meeting record. In circumstances where, in the opinion of at least one co-chair, consensus cannot be achieved on all substantial issues within the required timeframe, the co-chairs will consult the Commission Chair and Vice-Chair for direction. Absent direction otherwise, the co-chairs shall report differing views and identify degrees of difference but not the individuals holding particular opinions.

Rule 12 Policy Questions.

Joint technical committees shall not attempt to resolve policy matters. They shall, however, seek to define policy issues, describe alternative approaches when so directed by the Commission, and refer such issues and alternative approaches to the Commission or Panels, as appropriate.

Rule 13 Minutes of Meetings.

No detailed formal minutes of joint technical committees shall be required. Attendance lists, a brief summary of results, and, any documents prepared for discussion purposes shall be maintained as a meeting record.

Rule 14 Role of the Executive Secretary.

The Executive Secretary shall be responsible for meeting logistics of joint technical committees.

Rule 15 Reporting.

Joint technical committees shall report any decisions or recommendations to the Commission, and to Panels as appropriate.

CHAPTER VI - GUIDELINES FOR CONDUCT OF TECHNICAL COMMITTEE MEMBERS

The manner in which Joint Technical Committees conduct their business is critical to their credibility as scientific advisory groups to the Commission and Panels. The professional integrity of Committee members is dependent not only upon their skills and dedication, but also upon their adherence to recognized principles of ethical behaviour.

This document is intended to provide ethical guidelines for Technical Committee members. Its purpose is to encourage members to be constantly aware of ethical issues that could influence their professional work and to continually strive to increase their personal competence in the practice of their profession.

*The following documents provided source material for development of these guidelines:

"Ethical Guidelines for Statistical Practices: Report of the Ad Hoc Committee on Professional Ethics"; the American Statistician, February 1983, Vol 37 (1).

Constitution and By-Laws of the Association of Professional Biologists of British Columbia, December 1981.

Online sources that may be helpful in this regard:

The College of Applied Biology of British Columbia: Code of Ethics Q and A
https://www.cab-bc.org/files/Schedule%202%20Code%20of%20Ethics.pdf

The Association of Professional Biology: Professional Behavior
https://professionalbiology.com/sites/default/files/pdfs/apbbull_professionalism_0.pdf

The American Statistical Association: Ethical Guidelines for Statistical Practice
http://www.amstat.org/about/ethicalguidelines.cfm

GENERAL:

Individual Committee members shall undertake only those assignments for which qualified. They shall strive to maintain the highest personal professional standards. They shall uphold the dignity and integrity of the profession, and shall strive to protect the profession collectively and individually from misrepresentation and misunderstanding.

INDIVIDUAL COMMITTEE MEMBERS SHALL SERVE AS SCIENTISTS, NOT AS ADVOCATES FOR THEIR RESPECTIVE AGENCY POSITIONS:

Individual Committee members shall serve as scientists whose primary responsibilities are to provide scientific analysis and interpretation pertinent to technical issues and problems referred to the Committee.

Technical Committees should carefully define and distinguish technical/scientific/biological problems and policy issues. Policy issues should be discussed in Technical Committee meetings only to the extent necessary to clarify relationships or interactions between policy and technical issues.

Members shall not permit the agency he/she represents to directly or indirectly regulate his/her professional judgement.

Members shall apply analytical procedures without concern for a favourable outcome.

Members shall disclose any financial or other interests that may affect, or appear to affect, their professional statements.

Members shall not subjugate professional principles for gifts or rewards of any kind intended to influence their professional judgement or advice.

PRESENTATION OF INFORMATION AND OPINIONS:

Members shall present their findings and interpretations honestly and objectively.

Members shall avoid untrue, deceptive, or undocumented statements.

Members shall be factual in all estimates, reports and testimony, and other matters.

Members shall be prepared to document: Data sources used in an inquiry; known inaccuracies in the data; any limitations in data or concepts; steps taken to correct or refine the data, analytical procedures applied to the data and the assumptions required for their application.

Members shall make the data available for analysis by other responsible parties with appropriate safeguards for privacy concerns.

Members shall recognize and emphasize that scientific analysis may be a component of an inquiry, and should be acknowledged in the same manner as other components.

Members shall indicate alternative courses of action and the adverse consequences if their technical judgement or advice is not followed.

Members shall support the competence, judgement, and authority of other professionals, and will take care that credit for work is given to those responsible for plans, data interpretations, writings, or other accomplishments.

Members shall recognize that the selection of an analysis procedure is to some extent a matter of judgement, and that other professionals may select alternative procedures.

Members shall direct any criticism of an inquiry to the inquiry itself, and not to the individuals conducting it.

Members shall not attempt to injure maliciously or falsely, directly, or indirectly, the professional reputation, prospects or practice of another person. Members shall not express professional opinions which reflect on the ability or integrity of another person or organization, unless convinced that their responsibilities to the profession and the community require them to do so.

RESPONSIBILITIES FOR DATA SECURITY:

Members shall recognize that collecting data may impose a burden on respondents, that it may be viewed as an invasion of privacy, and that it often involves legitimate confidentiality considerations. Members should:

1. Collect only the data needed for the purpose of the inquiry.

2. Inform each potential respondent about the general nature and sponsorship of the inquiry and the intended uses of the data.

3. Establish their intentions, where pertinent, to protect the confidentiality of information collected from respondents; try to ensure that these intentions realistically reflect the ability to do so; and clearly state pledges of confidentiality and their limitations to the respondents.

4. Ensure that the means are adequate to protect confidentiality to the extent pledged or intended; that processing and use of data are in conformity with pledges made; that appropriate care is taken with directly identifying information (using steps such as destroying this type of information or removing it from the file when it is no longer needed for the inquiry); that appropriate techniques are applied to control statistical disclosure.

5. Ensure that any transfer of data to other persons or organizations shall be in conformity with the confidentiality pledges established; require written assurance from the recipients of the data that the measures employed to protect confidentiality will be at least equal to those originally pledged.

OTHER MATTERS:

Members shall act fairly and justly toward vendors, contractors, and other commercial interests, recommending products and services only on the basis of merit and value.

CHAPTER VII - RULES OF PROCEDURE - TECHNICAL DISPUTE SETTLEMENT BOARD

~~The rules of procedure for all Technical Dispute Settlement Boards are established under Article XII and Annex III of the Pacific Salmon Treaty.~~

[This process replaces all previous procedures for the establishment of Technical Dispute Settlement Boards pursuant to Article XII and Annex III of the treaty.

Guidance for establishing TDSBs

- **Priority**: The Commission sees a TDSB as a last resort after attempts by technical committees, panels, and commissioners have failed to yield resolution. Nonetheless, a TDSB (if activated) could serve as a useful forum to make findings of fact on the dispute and other technical matters referred to it (PST Article XII, para. 1.) Properly utilized, a TDSB should expedite resolution of technical matters while strictly avoiding policy recommendations.
- **Simplicity**: Article XII and Annex III outline a TDSB process that is adaptable, efficient, and responsive to national prerogatives. The Commission shall aim to preserve those characteristics if it establishes a TDSB.
- **Technical vs. policy issues**: Few issues in the PSC will be strictly technical, with many involving policy and treaty interpretation. If TDSB activation is deemed necessary, it can make findings of fact as a foundation or precursor to Commission engagement on policy solutions. Under no circumstances will TDSB findings include policy recommendations to the Commission.
- **Scope**: Any TDSB shall be established with clear and bilaterally agreed terms of reference (TOR). Such TOR shall include, but not be limited to, a precise description of the dispute involved, the facts sought from the board, a work timeline consistent with Article XII and Annex III, and any other details deemed necessary to focus the board's deliberations. The TOR shall be agreed upon before Parties designate their board members.
- **Composition**: Consistent with Annex III, each TDSB shall be composed of three individuals. Each Party shall designate one member and the Parties shall jointly designate a third member, who shall be Chair of the Board (PST Annex III, para. 1.) Each Party shall submit their respective appointee's curriculum vitae to the Commission Chair and Vice-Chair under the timelines outlined in Annex III. Each Party shall also submit curriculum vitae for one or more nominees to serve as the third board member/chairperson, who shall be chosen by agreement between the Commission Chair and Vice-Chair. The Secretariat shall distribute all curriculum vitae to Commissioners for their review.
- **Qualifications**: As stated by the Commission 2003 agreement on TDSB's, appointees shall not be employed by the Parties' national, state, provincial, or indigenous natural resource agencies or otherwise have a personal or financial relationship to the dispute referred to the board. TDSB appointees shall have recognized scientific, technical, or other relevant expertise in the general field of fisheries. Scientific, technical and other relevant expertise may include an advanced degree in fisheries or ocean science including related specialties in the biological sciences, employment for at least 5 years in fisheries (especially salmon) research or management, or peer-reviewed publications in the area of fisheries and oceans sciences or appropriately related field. Appointees who are not nationals of Canada or the United States are desirable, provided that they otherwise meet the qualifications for scientific background and/or experience.

- **Conflict of interest**: Prior to appointment, each individual shall file with the Chair and Vice-Chair of the Commission a disclosure of any financial or other affiliation that could constitute or be perceived to constitute a conflict of interest. The Chair and Vice-Chair of the Commission will resolve any concerns regarding conflict of interest prior to final appointment of members to a TDSB.

Final reports from TDSB's

- Consistent with Annex III (para. 3), decisions of a TDSB, including procedural rulings and findings of fact, shall be made by majority vote of the three members and shall be final and without appeal except as provided in Article XII, paragraph 3.
- Consistent with their respective TOR, Article XII, and Annex III, TDSB's shall provide their findings to the Commission at a date and location agreed upon by the Chair and Vice-Chair. Such date and location shall optimize the chances of timely Commission decisions and reaction to the findings.

Relevant Pacific Salmon Treaty text

Article XII: Technical Dispute Settlement

1. Either Party may submit to the Chairman of the Commission, for referral to a Technical Dispute Settlement Board, any dispute concerning estimates of the extent of salmon interceptions and data related to questions of overfishing. The Commission may submit other technical matters to the Chairman for referral to a Board. The Board shall be established and shall function in accordance with the provisions of Annex III. The Board shall make findings of fact on the disputes and the other technical matters referred to it.
2. The findings of the Board shall be final and without appeal, except as provided in paragraph 3, and shall be accepted by the Commission as the best scientific information available.
3. Either Party may, by application in writing to the Chairman of the Commission, request reconsideration of a finding of a Board, provided that such request is based on information not previously considered by the Board and not previously known to or reasonable discoverable by the Party requesting such reconsideration. The Chairman shall, if possible, refer the request to the Board which made the finding. Otherwise, the Chairman shall refer the request to a new Board constituted in accordance with the provisions of Annex III.

Annex III: Technical Dispute Settlement Board

1. Each Technical Dispute Settlement Board shall be composed of three members. Within 10 days of receiving a request under Article XII to refer a matter to a Board, the Chairman of the Commission shall notify the Parties. Within 20 days of this notification, each Party shall designate one member and the Parties shall jointly designate a third member, who shall be Chairman of the Board.
2. The Board shall determine its rules of procedure, but the Commission or the Parties may specify the date by which the Board shall report its findings. The Board shall provide an opportunity for each Party to present evidence and

arguments, both in writing and, if requested by either Party, in oral hearing. The Board shall report its findings to the Commission, along with a statement of its reasons.

3. Decisions of a Board, including procedural rulings and findings of fact, shall be made by majority vote and shall be final and without appeal except as provided in Article XII, paragraph 3.

4. Remuneration of the members and their expense allowances shall be determined on such basis as the Parties may agree at the time the Board is constituted. The Commission shall provide facilities for the proceedings.]

CHAPTER VIII - RULES OF OPERATION - EXECUTIVE SECRETARY

These rules apply to the Executive Secretary of the Pacific Salmon Commission appointed under Article II, paragraph 15 of the Pacific Salmon Treaty.

The Executive Secretary of the Pacific Salmon Commission shall carry out the following powers and responsibilities:

Rule 1 General Administration.

The Executive Secretary shall be responsible for the general administration of the Commission.

Rule 2 Implementation of Commission Decisions.

The Executive Secretary shall facilitate the implementation of Commission decisions and recommendations, as appropriate.

Rule 3 Authority Over Staff.

The Executive Secretary shall have full authority over the staff of the Commission, and shall establish personnel policies and procedures as needed, in accordance with the decisions of the Commission and the Staffing Regulations.

Rule 4 Commission Funds.

The Executive Secretary shall receive and disburse funds in accordance with decisions of the Commission and the Financial Regulations.

Rule 5 Party Financial Contributions.

On advice of the Finance and Administration Committee, the Executive Secretary shall establish a date on which the periodic financial contributions of each Party shall be made.

Rule 6 Commission and Panel Minutes and Reports.

The Executive Secretary shall ensure that minutes and reports are prepared for Commission and Panel meetings as appropriate.

Rule 7 Committee Responsibilities.

The Executive Secretary shall be an ex-officio member of each committee of the Commission and shall coordinate with committee leadership to ensure that minutes and reports are prepared for committee meetings, as appropriate.

Rule 8 Official Files.

The Executive Secretary shall maintain official files and publications, including all reports, decisions and recommendations taken by the Commission and its subsidiary bodies.

Rule 9 Reports.

The Executive Secretary shall provide reports as required by the Commission.

Rule 10 Meeting Arrangements.

The Executive Secretary shall make all necessary arrangements for meetings of the Commission and its subsidiary bodies.

Rule 11 Preparation and Transmittal of Reports.

The Executive Secretary shall ensure reports of the Commission and its subsidiary bodies are prepared and transmitted to the national sections of the Commission in accordance with the bylaws.

Rule 12 Transmittal of Communications.

The Executive Secretary shall ensure that national sections receive communications from the Parties to the Commission.

Rule 13 Correspondence.

The Executive Secretary shall prepare correspondence on behalf of the Commission.

Rule 14 Assistance to Commissioners and Panel Members.

The Executive Secretary shall assist Commissioners and Panel members generally in the performance of their duties.

Rule 15 Delegation of Duties.

Subject to the approval of the Chair of the Commission, the Executive Secretary may assign to senior members of the staff such of his/her duties or responsibilities as appropriate.

Rule 16 Other Functions.

The Executive Secretary shall perform such other functions as may be assigned to him/her from time to time by the Commission or by the Chair of the Commission.

CHAPTER IX - FINANCIAL REGULATIONS

SECTION A. APPLICABILITY

Rule 1 Applicability of Regulations.

The following regulations shall govern the financial administration of the Pacific Salmon Commission.

SECTION B. FINANCIAL YEAR

Rule 2 Designation of Financial Year.

The financial year shall be the twelve month period from April l to the following March 31, both dates inclusive.

SECTION C. BUDGET

Rule 3 Draft Budget.

(a) A draft budget comprising estimates of income and expenditure of the Commission and its subsidiary bodies shall be prepared by the Executive Secretary in consultation with the Finance and Administration Committee for the ensuing financial year.

(b) The precise form in which the draft budget is to be presented shall be decided by the Commission upon the advice of the committee on Finance and Administration as established under Article II, paragraph 17 of the Treaty.

Rule 4 Budget Categories.

The draft budget shall be divided into the following categories:

(a) Salaries, wages and benefits;

(b) Travel and transportation of persons and things;

(c) Rents, communications and utilities;

(d) Printing and reproduction of documents;

(e) Professional services and other contractual services;

(f) Materials and supplies;

(g) Capital asset replacement reserves as specified in Rule 21.

With the exception of the capital asset replacement reserves, the Executive Secretary may transfer up to $100,000 from one category to another in any fiscal year. Transfers in excess of $100,000 may be made only with authorization of the Chair and Vice-Chair of the Commission upon recommendation of the Standing Committee on Finance and Administration.

Rule 5 Details of Appropriations.

The draft budget shall be accompanied by details and analysis of the appropriations made for the previous and subsequent year together with such information as the Commission may specify from time to time and as deemed necessary by the Executive Secretary.

Rule 6 Submission of budget.

The Executive Secretary shall submit the draft budget including a forecast budget for the subsequent financial year to the Standing Committee on Finance and Administration at least 60 days prior to the annual meeting of the Commission.

Rule 7 Currency Basis for Budget.

The draft budget and the forecast budget shall be presented in Canadian dollars.

Rule 8 Adoption of Budget.

At its inaugural meeting and thereafter at each annual meeting the Commission shall adopt the budget as agreed by the Commission.

SECTION D. APPROPRIATIONS

Rule 9 Party Financial Contributions.

Each Party to the Commission shall contribute in equal shares to the annual budget and any supplementary estimates in accordance with Article II paragraph 12 of the Treaty. Such contributions shall be made in Canadian dollars.

Rule 10 Authorization to Incur Obligations.

The receipt of appropriations in accordance with the approved budget as adopted by the Commission shall constitute authorization for the Executive Secretary to incur obligations and make payments for the purposes authorized by the Commission. Obligations will be considered incurred when purchase orders are issued.

Rule 11 Post-employment benefits obligation

For the purpose of financial statements presentation and to determine the amount of unobligated funds at year-end:

a) The Commission will use the triennial pension valuation report provided by the International Fisheries Commissions Pension Society (IFCPS) to determine the minimum yearly pension expense. The pension expense will, at a minimum, consist of the employer portion of the

current service pension contribution plus any additional yearly payments required by the IFCPS (as shown in the current valuation report) that are necessary to extinguish the unfunded portion of the pension obligation. Lump sum payments received in advance from a Party will be recognized over time to match the payments received from the other Party with the view of achieving funding parity between the Parties during the respective fiscal periods.

b) Other post-employment benefits such as extended medical plans and life insurance will be charged against appropriations in the fiscal year in which the respective invoice is dated. The annual budgets will include the full annual costs of such benefits.

Rule 12 Obligations Against Future Years.

Upon approval of the Commission the Executive Secretary may incur obligations against future years before appropriations are received when such obligations are necessary for the continued effective functioning of the Commission. These obligations shall be met from and shall not exceed the amount included in the approved appropriations.

Rule 13 Availability of Appropriations.

Appropriations shall remain available for twelve months following the end of the financial year to discharge obligations incurred during the year to which the funds relate.

Rule 14 Unliquidated Obligations.

Any obligation which remains unliquidated 12 months after the end of the financial year in which it was incurred shall be cancelled, or where the obligation remains a valid charge, transferred as an obligation against current appropriations. Any balance in appropriations shall be accounted for in accordance with the provisions of Rule 22.

Rule 15 Investment of Appropriated Funds.

Appropriated funds in excess of those required to meet immediate short term requirements may be invested in interest bearing guaranteed bank deposits/notes of chartered banks or other financial institutions that are members of the Canada Deposit Insurance Corporation.

Rule 16 Use of unobligated Funds.

The Commission may utilize unobligated funds which may accrue in the General Fund, Capital Asset Replacement Reserve Fund, Working Capital Fund, or Special Funds and Trusts. Such funds shall be applied either as deductions from the next annual budget contribution due or as a source of funding for the subsequent fiscal year(s), as determined by the Commission. If deducted from the next annual contribution due, this shall be in proportion to the original amount contributed by each Party.

Rule 17 Extraordinary Expenses.

The Executive Secretary may utilize the Working Capital Fund to pay for extraordinary and unforeseen expenses when ordinary budgets are insufficient, upon approval of the Commission

Chair and Vice-Chair. The Commission shall determine the appropriate replenishment schedule and amounts for the Working Capital Fund.

SECTION E. FUNDS

Rule 18 Establishment of Accounts.

For the purposes of accounting for the income and expenditures of the Commission, a General Fund and a Working Capital Fund shall be established. The Commission may also decide to establish such other Trust or Special Funds, as required. The purpose of the Working Capital Fund shall be to offset expenditures in any financial year or to finance unforeseen expenses or special initiatives the Commission deems advisable.

Rule 19 Monies Credited to General Fund.

The following monies shall be credited to the General Fund:

(a) contributions received from the Parties;

(b) receipts from the sale of surplus property purchased from the General Fund;

(c) unobligated funds consistent with Rule 15;

(d) interest income earned by the General Fund; and

(e) other income;

Rule 20 Monies Credited to Working Capital Fund.

The following monies shall be credited to the Working Capital Fund:

(a) receipts from the sale of surplus property purchased from the Working Capital Fund;

(b) bank interest earned by the Working Capital Fund;

(c) levy in lieu of income tax.

(d) unallocated funds at the end of each fiscal year in amounts determined by the Commission

Rule 21 Capital Asset Replacement Reserve Fund.

For the purpose of ensuring regular availability of funds for lifecycle replacement of capital assets, a Capital Asset Replacement Reserve Fund (CARRF) shall be established. On an annual basis, a fixed amount, as determined by the Commission, shall be transferred from the General Fund to the CARRF. The Executive Secretary shall provide an annual report to the Standing Committee on Finance and Administration regarding the use of the CARRF during the most recent fiscal year.

Rule 22 Transfers Between Funds.

The Executive Secretary may transfer money between funds established under Rule 18 as follows:

(a) temporarily from the Working Capital Fund to the General Fund, as may be necessary pending receipt of contributions from the Parties;

(b) permanently from the Working Capital Fund to Trust or Special Funds created under Rule 18, with authorization of the Commission;

(c) permanently from the Working Capital Fund to the General Fund with authorization of the Commission

Rule 23 Size of Working Capital Fund.

The Working Capital Fund shall not exceed $1,000,000, nor fall below $100,000, subject to Rule 17. Any funds resulting from a cancelled obligation addressed in Rule 14 shall be credited to the Working Capital Fund. The amount of the Working Capital Fund and its uses shall be reviewed by the Commission at regular intervals.

SECTION F. OTHER INCOME

Rule 24 Voluntary Contributions.

(a) The Executive Secretary may accept voluntary contributions from the Parties or sources other than the Parties, provided that the purposes for which the contributions are made are consistent with the policies, aims and activities of the Commission.

(b) Such contributions shall be treated as Trust or Special Funds and expenditures charged against such funds for the purpose so designated.

Rule 25 Test Fishing Revolving Fund

In accordance with Chapter IX, Section E, Rule 18, the Commission has established a Test Fishing Revolving Fund (TFRF) for each Party. The following shall govern use of the TFRF to support assessment of Fraser River sockeye and pink salmon.

(a) The following definitions are consistent with the Test Fishing Policy[1] and are included for clarity:

i. Test fish = all fish caught (and sold) in test fisheries that are required for sampling purposes and those fish incidentally killed in gillnet test fisheries, not limited to Fraser River sockeye and pink salmon

ii. Pay fish = all sockeye and/or pink salmon retained in test fisheries, in excess of test fish, up to the level which is required to cover test fishing program costs in the current year

[1]Pacific Salmon Commission Test Fishing Policy. Feb. 10, 2021. Pacific Salmon Commission.

iii. Extra pay fish = all sockeye and/or pink salmon retained in test fisheries exceeding that which is required to cover the test fishing program costs in the current year

iv. Surplus = any revenues from the sale of retained fish in excess of test fishing program costs

v. Deficit = any shortfall in revenues from the sale of retained fish below test fishing program costs

vi. Conservation issues or concerns = conservation constraints on management groups as agreed by the Fraser River Panel in a given year

(b) Additional incomes generated through the incidental catch and sale of non-target species and stocks as well as decisions made regarding the retention of pink salmon pay fish will not influence the regulation of surplus/deficit sharing among the Parties.

(c) Monies held in the revolving fund shall be a) used to pay for test fishing deficits when insufficient fish are available for retention and sale; b) supplemented by test fishing program surpluses; and c) supplemented by the Parties if they so agree.

(d) The Executive Secretary shall provide a full annual accounting of TFRF activity to the Standing Committee on Finance and Administration (F&A Committee) including categories of revenues and expenses affecting the funds, and the fund balance for each Party. The Commission shall address, as appropriate, any positive or negative TFRF balances it deems excessive upon advice from the F&A Committee.

(e) The PSC Test Fishing Policy shall prescribe the fish available for retention and sale in any given year. That policy is separate and distinct from the PSC bylaws, and is subject to amendment separately from these bylaws.

(f) Test fishing program costs (contractual or administrative) shall not be borne from the PSC's ordinary budget or sources other than fish sales or the TFRF, unless otherwise agreed by the Commission. Changes to the types of test fishing costs recoverable from fish sales or the TFRF shall be approved by the Commission on advice from the F&A Committee.

(g) A Party may unilaterally withdraw funds from its TFRF when its recorded contributions (excluding program-generated surpluses) exceed its recorded withdrawals (excluding program-generated deficits) as of March 31 of each year. In no circumstances should withdrawals yield a negative balance in a national TFRF.

TFRF Accounting

The following TFRF accounting guidelines are subject to the availability of funds from each Party.

The Secretariat will maintain timely records of the deficits (or surpluses) incurred and apportion those 50% / 50%, as stated in the TFRF Decision Tree (Appendix II), between the Parties after the conclusion of the sampling season (unless otherwise noted below):

(h) Where in-season the Fraser River Panel determines that conservation issues will result in no directed harvest of Fraser River sockeye, no sockeye pay fish will be retained.

(i) Where in-season the Fraser River Panel determines that the sockeye run sizes are such that there is no international TAC, no sockeye pay fish will be retained.

(j) Where in-season the Fraser River Panel determines that the sockeye run sizes are large enough to generate international TAC but not large enough such that there is in Canada, within and outside Panel area waters, inadequate TAC to address First Nation food, social, and ceremonial fisheries and First Nations Treaty allocations, no sockeye pay fish will be retained. When these conditions are true on the date of the scheduling of the last Fraser River Panel-approved U.S. sockeye fishery of the season, Canada agrees to cover 83.5% of the resulting deficit.

(k) Where in-season the Fraser River Panel determines that the sockeye run sizes are such that the international TAC is insufficiently large, no sockeye pay fish will be retained.

(l) Where in-season the Fraser River Panel determines that the sockeye run sizes are such that there are:

1. in Canada, within and outside Panel area waters, adequate TAC to address First Nation food, social, and ceremonial fisheries and First Nations Treaty allocations; and

2. sufficient international TAC to allow the retention of pay fish up to the levels needed to meet program costs in accordance with the PSC Test Fishing Policy; then sockeye pay fish will be authorized.

(m) Where conditions allow for the harvest of "extra pay fish" due to an extremely high abundance of Fraser River sockeye or pink salmon, such harvest may be authorized by the Fraser River Panel.

(n) In the event that either country depletes its available resources in the revolving fund, the country would need to make a timely contribution to the revolving fund to cover outstanding costs per paragraph c.

(o) The Secretariat shall forecast any program deficit based on worst-case Fraser River sockeye and pink salmon returns projected each February. These forecast deficits will be used to estimate the TFRF prior to the start of the season.

(p) TFRF supplementation would be processed as follows:

1. Canada: The Secretariat shall invoice Canada each fiscal year (no later than March 31) for its share of the test fishing deficit incurred that fiscal year. If the Canadian TFRF balance proves insufficient during the course of a sampling season, a supplemental invoice for the deficit incurred to-date will be issued to allow Panel-approved test fishing to conclude without delay. Canada will ensure payment of invoices according to Canada's Financial Administration Act.

2. U.S.A.: The Secretariat shall invoice the United States for its share of the forecast deficits for the upcoming season (as per paragraph o) no later than March 31 each year, and that Party will make its contribution to ensure funds are transferred by May 1 of the same calendar year. If the U.S. TFRF balance proves insufficient during the course of a sampling season, a supplemental invoice will be issued for an amount sufficient to allow Panel-approved test fishing to conclude without delay.

(q) The Secretariat shall also regularly calculate forecast cash flows in-season, including deficit implications of Panel decisions. If the forecast deficit is greater than 75% of the sum of the two revolving fund balances, the Fraser River Panel and the Secretariat shall apprise the F&A Committee. Otherwise, the F&A Committee shall not be engaged in Panel decisions on test fishing schedules.

(r) As appropriate under paragraph (o), the F&A Committee shall collaborate with the Panel and the Secretariat to revise the test fishing schedule to minimize deficits, enable conservation, and ensure adequate assessments of Fraser sockeye and pink salmon.

Rule 26 Special Joint Research Fund

(a) In accordance with the provisions of the by-laws Chapter IX, Section E, Rule 18, the Commission hereby establishes a Special Joint Research Fund to conduct activities related to scientific research such as, inter alia, workshops, special publications, peer review initiatives, or joint scientific projects approved by the Commission;

(b) The Executive Secretary may accept monies from representatives of the Parties for deposit into the Special Joint Research Fund in such amounts as may be determined by the Parties. Deposits into the Joint Research Fund shall in no way be considered as increases in the funding contribution of the Parties to support the operations of the Commission;

(c) The Executive Secretary shall be responsible for administration of the Joint Research Fund, including maintenance of proper fiscal records and controls, execution of contract(s) with contractor(s), and disbursement of funds in accordance with the terms and conditions of such contract(s);

(d) Interest income earned by the Special Joint Research Fund shall be credited to the Special Joint Research Fund.

(e) The Commission shall develop a statement of work to be performed for each activity approved under paragraph (a) above.

Rule 27 Special Yukon River Salmon Restoration and Enhancement Fund.

(a) In accordance with the provisions of the by-laws Chapter IX, Section E, Rule 18, the Commission hereby establishes a Special Yukon River Salmon Restoration and Enhancement Fund to be managed by the Yukon River Panel;

(b) The Executive Secretary may accept monies from representatives of the Parties for deposit into the Fund in such amounts as may be determined by the Parties; such deposits into the Fund shall in no way be considered as increases in the funding contributions of the Parties to support non-Yukon River Panel operations of the Commission;

(c) The Executive Secretary shall be responsible for maintenance of proper fiscal records of deposits made to the Fund, and records of lump sum disbursements authorized by the officer(s) of the Yukon River Panel designated by the Parties;

(d) Interest income earned by the Fund shall be credited to the Fund;

(e) The Executive Secretary shall terminate the Fund on receipt of agreed instructions from representatives of the Parties.

Rule 28 Northern Boundary and Transboundary Rivers Restoration and Enhancement Fund and the Southern Boundary Restoration and Enhancement Fund

(a) There are hereby established a Northern Boundary and Transboundary Rivers Restoration and Enhancement Fund (hereinafter referred to as "the Northern Fund") and a Southern Boundary Restoration and Enhancement Fund (hereinafter referred to as "the Southern Fund"), each Fund to be administered by the relevant Fund Committee of the Pacific Salmon Commission.

(b) The Northern Fund has been constituted by grants totaling $75 million USD, and the Southern Fund has been constituted by grants totaling $65 million USD. Either Party may make additional contributions to the Northern Fund or the Southern Fund.

(c) Contributions to either the Northern Fund or the Southern Fund may also be made by a third party, provided that the purpose of the contribution is consistent with the aims and activities of the relevant Fund as set out in this rule.

(d) The Northern Fund shall be used to support activities set out in paragraph (g) below in northern and central British Columbia, Southeast Alaska, and the drainage of the Alsek, Taku and Stikine rivers. The Southern Fund shall be used to support activities set out in paragraph (h) below in southern British Columbia, the States of Washington and Oregon, and the Snake River basin in Idaho.

(e) Expenditures shall not exceed income from the invested principal of either the Northern Fund or the Southern Fund. For purposes of this rule, the term "income" shall include interest, dividends and increases in the value of the invested principal of either the Northern or Southern Fund. The term "principal" shall refer to money contributed to either Fund, and not to income that is reinvested or income from such reinvestment.

(f) Notwithstanding Section G Rule 31,

i. at the discretion of the Northern Fund Committee, income from investments of the principal of the Northern Fund may be used to support activities set out in paragraph (g) below or may be reinvested and used at a later date to support those activities. At no time may the principal of the Northern Fund be used except to generate income to be used in support of such activities, and

ii. at the discretion of the Southern Fund Committee, income from investments of the principal of the Southern Fund may be used to support activities set out in paragraph (h) below or may be reinvested and used at a later date to support those activities. At no time may the principal of the Southern Fund be used except to generate income to be used in support of such activities, and

(g) The Northern Fund shall be used to support the following activities:

i. development of improved information for resource management, including better stock assessment, data acquisition, and improved scientific understanding of factors affecting salmon production in the freshwater and marine environments;

ii. rehabilitation and restoration of habitat and improvement of natural habitat to enhance productivity and protection of Pacific salmon; and

iii. enhancement of wild stock production through low technology techniques rather than through large facilities with high operating costs.

(h) The Southern Fund shall be used to support the following activities:

i. development of improved information for resource management, including better stock assessment, data acquisition, and improved scientific understanding of limiting factors affecting salmon production in the freshwater and marine environments;

ii. rehabilitation and restoration of marine and freshwater habitat, and improvement of habitat to enhance productivity and protection of Pacific Salmon; and

iii. enhancement of wild stock production through low technology techniques rather than through large facilities with high operating costs.

(i) The Executive Secretary shall disburse income from the Northern and Southern Funds at the direction of the Northern Fund Committee and the Southern Fund Committee respectively.

(j) The Executive Secretary shall enter into contract(s) on behalf of the Commission with professional investment manager(s) to manage the principal of the Northern and Southern Funds and any earnings. The investment manager(s) shall be selected by the relevant Fund Committee(s), and the terms and conditions of the contract(s) shall be subject to approval of the relevant Fund Committee(s).

(k) The contract(s) shall contain the terms and conditions for investment of the Northern and Southern Funds and shall provide that the principal and earnings of each of the Northern and Southern Funds shall be invested in interest-bearing accounts, bonds, securities, or other investments in order to achieve the highest annual yield consistent with protecting the principal of each of the Funds. Further, the contract(s) shall also provide that all investments made shall be the type of investments made by a prudent investor. In addition, it (they) shall also provide termination provisions consistent with those in the 1999 Pacific Salmon Agreement. The investment manager(s) shall carry out its (their) functions with the same degree of knowledge and care as exercised by other investment managers in that state or province. The investment manager(s) shall be bonded.

(l) The contract(s) shall further provide that the investment manager(s) shall provide to each of the Northern Fund and Southern Fund Committees and to the Commission reports on at least a quarterly basis regarding the status of each Fund and, in particular, the availability of the income from the Northern and Southern Funds for distribution.

(m) The management and use of the Northern Fund by the Northern Fund Committee and the management and use of the Southern Fund by the Southern Fund Committee shall be conducted in accordance with applicable national laws. Either Party or the Commission may conduct financial audits of the Northern and Southern Funds and may review the operation of the Northern Fund and Southern Fund Committees.

Rule 29 Northern Fund and Southern Fund Committee

(a) The Northern Fund Committee and the Southern Fund Committee shall be each composed of six members. Each Party shall appoint three of the members for each committee. Members shall exercise their duties in good faith and with reasonable care.

(b) Each Committee shall adopt rules of procedure which shall govern its activities notwithstanding any by-laws of the Commission regarding the same or similar subject matter. Each Committee shall also adopt procedures for the submission, review, evaluation and approval of proposals for use of the income of the relevant Fund.

(c) The Executive Secretary shall make all necessary arrangements for meetings of the Northern Fund and Southern Fund Committees, including technical and administrative support.

(d) Decisions of each of the Northern Fund and Southern Fund Committees shall be by consensus. Decisions of each of the Northern Fund and Southern Fund Committees, including decisions regarding disbursement of funds, shall be final and not subject to review by the Commission.

SECTION G. CUSTODY OF FUNDS

Rule 30 Designation of Bank Account.

The Executive Secretary shall designate a bank or financial institution insured by Canada Deposit Insurance Corporation in the Vancouver, B.C. metropolitan area in which the funds of the Commission shall be kept. The Executive Secretary shall inform the Commission of the name of the bank or financial institution.

Rule 31 Controller duties.

The Executive Secretary, subject to the approval of the Commission, may designate a Controller whose duties, among other administrative responsibilities, shall be to keep accounts for the General Fund and the Working Capital Fund and any other special funds that may be necessary for the effective management of the Commission.

Rule 32 Designation of Officers

The Executive Secretary shall designate a limited number of officers who may receive monies, incur obligations, and make payments on behalf of the Commission in a manner consistent with the Secretariat's internal financial controls. Subsidiary bodies may not incur expenses for the Commission without the prior approval of the Executive Secretary or his/her designee.

Rule 33 Restrictions on Investments.

(a) The Executive Secretary may make short-term investments of monies not immediately required by the Commission. Such investments shall be restricted to securities and other investments issued under Government guarantee or interest bearing accounts operated by the bank or financial institution where the Commission's account is held. The details of investment transactions and income derived shall be reported in the documents supporting the budget.

(b) Monies held in Trust or Special Funds, use of which is not required for at least 12 months, may be invested for longer terms when authorized by the Commission, provided that such investment is consistent with the terms under which the monies were provided to the Commission.

Rule 34 Special provisions regarding the Northern Fund and the Southern Fund

(a) The Executive Secretary shall:

i. provide technical and administrative support to the Northern and Southern Fund Committees as required;

ii. establish separate account(s) to hold contributions to the Northern Fund and its earnings; establish separate account(s) to hold contributions to the Southern Fund and its earnings; and make disbursements from the Northern or Southern Funds at the sole direction of the Northern Fund Committee or the Southern Fund Committee respectively;

iii. provide for the maintenance of such records as are reasonably necessary for the operation of the Northern Fund and Southern Fund Committees, to disclose the use of the Northern and Southern Funds as well as to facilitate effective audits; and

iv. provide an annual report regarding each of the Northern and Southern Funds to the Parties.

(b) All costs of administering the Northern Fund (including the administrative costs of the Commission incurred in providing support for the Northern Fund) shall be drawn from the income of the Northern Fund. All costs of administering the Southern Fund (including the administrative costs of the Commission incurred in providing support for the Southern Fund) shall be drawn from the income of the Southern Fund.

(c) No funds may be disbursed from the Northern Fund after the expiration of the fishing arrangements in Chapters 1, 2, and 3 of Annex IV of the Pacific Salmon Treaty until new fishing arrangements have been agreed by the Parties. No funds may be disbursed from the Southern Fund after the expiration of the fishing arrangements in Chapters 3 to 6, inclusively, of Annex IV of the Pacific Salmon Treaty until new fishing arrangements have been agreed by the Parties.

(d) If the Pacific Salmon Treaty, the 1999 Agreement Relating to the Pacific Salmon Treaty or Attachment C thereto is terminated, all monies remaining in the Northern Fund and the Southern Fund on the date of such event shall be returned to the government that contributed the monies. Investment income which has accrued to the principal shall be distributed to each government in proportion to its contribution. Any contributions made by third parties, shall, unless otherwise specified in written directions at the time of the contribution, revert to the General Fund.

SECTION H. ACCOUNTS AND INTERNAL CONTROL

Rule 35 Responsibilities of Executive Secretary.

The Executive Secretary shall:

(a) establish, update and monitor detailed financial procedures to ensure effective financial administration and economy in the use of funds. Upon the advice of the Finance and Administration Committee and prior to use, such procedures shall be submitted to the Commission for approval;

(b) cause all payments to be made on the basis of supporting vouchers and other documents which ensure that the goods or services have been received and that payment has not previously been made;

(c) ensure that payroll records are kept in accordance with provincial and federal government rules and regulations, with salaries of employees paid in Canadian dollars;

(d) maintain and be responsible for internal financial control to ensure:

i. the regularity of the receipt, custody and disposal of all funds and other financial resources of the Commission; and

ii. the conformity of obligations and expenditures with the appropriations adopted by the Commission at its annual meeting.

(e) be responsible for the custody of the Northern and Southern Funds, consistent with and in accordance with these bylaws and the rules of procedure adopted by the Northern Fund Committee and the Southern Fund Committee;

(f) exercise reasonable care in fulfilling the foregoing functions.

Rule 36 Bonding of Staff.

The Executive Secretary, and such staff as s/he deems necessary, shall be bonded by an approved bonding company in amounts determined by the Commission. The cost of the premium therefore shall be assumed by the Commission.

Rule 37 Maintenance of Accounting Records.

The Executive Secretary shall maintain such accounting records as are necessary for each financial year, including but not limited to records respecting:

(a) income and expenditures;

(b) the use of appropriations to reflect transfers between appropriation categories, amounts charged against appropriation categories and the status of the general and Working Fund Accounts; and

(c) assets and liabilities of the Commission.

Rule 38 Currency Bases for Accounts and Records.

The annual accounts and accounting records of the Commission shall be kept in Canadian dollars.

Rule 39 Writing Off of Losses.

The Executive Secretary may, after full investigation, authorize the writing off of losses of cash, stores and other assets, provided that a statement explaining the losses shall be submitted to the Commission and the Auditors together with the annual accounts.

SECTION I. EXTERNAL AUDIT

Rule 40 Annual Audit Required.

The accounts of the Commission shall be audited annually by external auditors appointed by the Commission.

Rule 41 Submissions to Auditors.

The Executive Secretary shall submit the accounts to the Auditors not more than 60 days after the end of the financial year. The auditor may be consulted on the introduction or amendment of any financial regulations and on detailed accounting methods, as well as on all matters affecting auditing procedures and methods.

Rule 42 Function of Audit.

The Auditors shall perform such audit procedures as they deem necessary to determine:

(a) that the financial transactions and balances reflected in the statements are in accordance with the Financial Regulations and Canadian Accounting Standards for Not-for-Profit Organizations, as applicable.

(b) that the financial statements are free of material misstatement.

Rule 43 Verification of Financial Records and Reports.

The Auditors shall be sole judges as to the acceptance in whole or in part of certifications by the Executive Secretary. They may proceed to such detailed examination and verification of all financial records as they choose and may make such reports to the Commissioners as they deem appropriate respecting the accounting system, internal financial controls and the financial consequences of administrative practices. The Auditors shall discuss their report with the Executive Secretary before submitting it to the Commissioners.

Rule 44 Disallowance of Items in Accounts.

The auditors shall have no power to disallow items in the accounts, but shall draw to the attention of the Executive Secretary any transaction the legality or propriety of which may be in doubt.

Rule 45 Distribution of Audit Reports.

The Executive Secretary shall provide to the Chair and Vice-Chair of the Standing Committee of Finance and Administration copies of the audit report and the audited financial statements within 15 days of their receipt. Upon approval of the audit report by the Chair and Vice-Chair of the Standing Committee on Finance and Administration, the Executive Secretary shall within 15 days submit same to the Parties.

Rule 46 Approval of Audits and Reports.

Upon the recommendation of the Finance and Administration Committee, following consideration of the audited annual financial statements and reports of the auditors, the Commission shall signify its acceptance at the first annual meeting following receipt of the report or take any other actions it considers appropriate.

SECTION J. INSURANCE

Rule 47 Liability Insurance.

The Executive Secretary shall obtain such suitable liability insurance against normal risks to the Commission's assets as the Commission may direct.

SECTION K. GENERAL PROVISIONS

Rule 48 Role of Finance and Administration Committee.

The Executive Secretary and the Finance and Administration Committee shall provide the Commission an evaluation of relevant financial and administrative implications for any matter under consideration by the Commission.

Rule 49 Procurement.

Purchases of equipment, supplies, and other requirements shall be authorized by the Executive Secretary or his/her designee in accordance with a procurement policy established by the Executive Secretary for the Commission.

Rule 50 Amendments.

The Commission may, from time to time, amend these Financial Regulations in accordance with Chapter XI of these bylaws.

CHAPTER X

STAFF REGULATIONS

SECTION A. GENERAL PROVISION

Rule 1 General

These regulations set out the conditions of employment, working relationships and rights and responsibilities of indeterminate/permanent employees in the service of the Pacific Salmon Commission (hereinafter referred to as the "Commission"). Secretariat staff shall enjoy the privileges and immunities provided to them as a consequence of the Pacific Salmon Treaty and domestic law in Canada and the United States. Policies and regulations applicable to staff other than the indeterminate/permanent are specified in a separate policy issued by the Executive Secretary.

Rule 2 Employee categories.

(a) Indeterminate/permanent: An employee hired to work at least one third of a normal work week for an unspecified amount of time. All permanent staff are qualifying employees for Commission benefits, subject to Section H of these regulations.

(b) Term: An employee hired to work for a specified period of time. Term employees hired for twelve consecutive months or more are qualifying employees for Commission benefits if they work at least one third of a normal work week.

(c) Seasonal: An employee hired to work a portion of each year on specified seasonal tasks. Seasonal employees are not qualifying employees for Commission benefits.

(d) Student: An employee hired for a specified period of time and who is: a) registered as a fulltime secondary or post-secondary student in an accredited institution; b) currently recognized as having full-time student status by the institution; and c) returning to studies in the next academic term. Student employees are not qualifying employees for Commission benefits.

Rule 3 Relevant collective agreement

"Relevant collective agreement" or management category means the collective agreement that applies for similar occupational groups in the Public Service of Canada. Members of the staff will not be members of Canadian Public Service unions. Such reference to standards of the Public Service of Canada is, therefore, used solely for purpose of guidance and shall not bind the Commission to those standards or terms.

Rule 4 Regulations

Except as hereinafter stated, these regulations apply to the employees of the Pacific Salmon Commission.

Rule 5 Interpretation

These regulations shall not be construed or applied so as to limit or restrict the mandate of the Commission.

Rule 6 Amendment

The Commission may amend these regulations from time to time.

SECTION B. DUTIES, OBLIGATIONS AND PRIVILEGES

Rule 7 Conduct in Interest of Commission

Staff of the Commission (hereinafter referred to as "staff") are employed by a bilateral commission established by treaty between the United States and Canada. As such, upon assuming their responsibilities, employees shall discharge their duties faithfully and conduct themselves in the best interests of the Commission.

Rule 8 Standard of Conduct

(a) Staff shall at all times conduct themselves in a manner in keeping with the international nature of the Commission. They shall exercise loyalty, discretion and tact in the performance of their duties. They shall avoid any actions, statements or public activities of potential detriment to the Commission.

(b) Staff and clients of the Commission can expect to be in an environment free of discrimination and harassment.

Rule 9 Direction from Outside the Secretariat

Staff shall not accept direction or instructions from any authority other than the Executive Secretary or his or her designee unless otherwise provided in the Treaty. In the case of the Executive Secretary, the Chair of the Commission shall provide direction.

Rule 10 Soliciting or Offering of Gifts Prohibited

In connection with their employment, staff shall not solicit, accept or offer any gift, commission, reward, advantage or benefit directly or indirectly without the prior approval of the Executive Secretary. Gifts, rewards or benefits include cash, goods or services including alcohol or fish, reduced prices for goods or services, work done gratuitously with respect to personal property, preferred treatment of any sort in a business enterprise and loans of money, material or equipment of any kind.

Rule 11 Confidentiality

Staff shall not, unless duly authorized, publicly disclose information acquired in the course of employment pertaining to the Commission and shall not use such information for personal gain. In the case of the Executive Secretary the Chair may authorize to release or disclose to the public, information pertaining to the Commission.

Rule 12 Outside Employment

Staff shall, in general, have no employment other than the Commission. When properly authorized, staff may undertake other employment or work, provided that it shall not interfere or conflict with the employee's duties in the Commission. The Executive Secretary may, where circumstances warrant, authorize staff to accept such employment or work. In the case of the Executive Secretary, the Commission may authorize outside employment.

Rule 13 Outside Interests Prohibited

a) Staff shall not be associated in the management of or have a financial interest in a business, industry or other enterprise if, by virtue of their employment with the Commission they may benefit from such association or interest.

b) Any technology, product, marketable goods, patent, or copyright developed by an employee in whole or in part during the course of his or her employment by the Commission shall be the property of the Commission.

c) Where staff has doubt about a real or potential conflict between their official duties and any outside investment or association, they shall advise the Executive Secretary in writing of the potential conflict. The Executive Secretary will submit the case to the Commission for consideration and decision. Failure to so advise the Executive Secretary may be grounds for disciplinary action, including dismissal.

SECTION C. RECRUITMENT AND APPOINTMENT

Rule 14 Executive Secretary

The Commission shall appoint the Executive Secretary and prescribe conditions of employment. Unless otherwise provided in the employment contract, the Executive Secretary shall be bound by these rules to the same degree as all other employees.

Rule 15 Hiring of Staff

The Executive Secretary shall appoint staff to the Secretariat on the basis of merit in accordance with staffing requirements prescribed by the Commission.

Rule 16 Probation

The Executive Secretary and all other staff shall be appointed subject to a probationary period of one year. Where circumstances warrant, the Executive Secretary may extend the probationary period by a period not exceeding six months. During the probationary period, staff may be dismissed if the Executive Secretary determines that their continued employment is not in the best

interests of the Commission. In the case of the Executive Secretary's probation, such determination shall be made by the Commission Chair and Vice-Chair. This provision applies notwithstanding other staff regulations pertaining to performance and dismissal.

Rule 17 Offer

Following selection, staff shall be made an offer of employment stating:

(a) that these Staff Regulations shall constitute the terms of employment and may be duly amended from time to time;

(b) the duties of the position;

(c) the starting date;

(d) the period of appointment, if applicable, and the period of probation;

(e) the position title, starting salary; and

(f) any applicable special terms and conditions.

Rule 18 Regulations to Be Issued to Employees

Together with the offer of employment, prospective employees shall be issued a copy of these regulations. Upon acceptance of the offer, staff shall indicate in writing to the Executive Secretary that they are familiar with and agree to abide by these regulations.

SECTION D. CLASSIFICATION OF STAFF

Rule 19 Public Service System Model

Staff duties, job classifications, and salaries shall be guided by the classification system of the Public Service of Canada.

Rule 20 Classification Audit

An audit of classification levels shall be conducted at the request of the Commission. In addition, the Executive Secretary shall review duties and classifications when appropriate using relevant classification standards from the Public Service of Canada.

SECTION E. SALARIES AND REMUNERATION

Rule 21 Pay scales and Remuneration

Pay scales for staff will be established with reference to appropriate scales of the Public Service of Canada and shall be paid in Canadian currency.

Rule 22 Adjustments and Increments

Notwithstanding that the Public Service of Canada serves as a guide, the Commission may adjust salary scales. Merit increases may be awarded by the Executive Secretary only on the basis of satisfactory job performance. Staff shall remain in a grade for a period of no less than one year.

Rule 23 Performance Appraisal

The Executive Secretary is responsible for ensuring that annual performance appraisals are completed for all staff. The appraisal of the Executive Secretary shall be completed by the Chair and Vice-Chair of the Commission.

Rule 24 Promotions and reclassifications

(a) Promotion of staff to fill vacancies: The Executive Secretary shall be authorized to promote staff to fill vacant positions based on the relevant classification standards from the Canadian Public Service. Such promotions shall be based on merit in all cases, and occur through competition when the Executive Secretary deems it in the best interests of the Commission.

(b) Reclassification: When the Executive Secretary determines that substantial changes are needed to a staff position's duties and responsibilities, he/she shall propose any relevant classification review to the Chair and Vice-Chair of the Commission for their concurrence. This proposal shall include estimates of budget implications. If the Chair and Vice-Chair concur with the classification review, the Executive Secretary shall proceed to develop a written rationale based on the relevant classification standards in the Canadian Public Service, the Secretariat's job description, benchmark positions in the Public Service, and direct consultation with appropriate Public Service classification experts. The Executive Secretary may select the incumbent of the former position or select a candidate via competition, based on merit and the best interests of the Commission.

Rule 25 Starting Salary

In general, staff shall be engaged at the lowest grade of their classification. Where circumstances warrant, the Executive Secretary, may authorize appointment at a salary higher than the lowest step of the relevant grade.

Rule 26 Overtime and Compensatory Leave

Overtime shall be authorized by the Executive Secretary or his/her designee. Efforts will be made to minimize overtime to ensure work/life balance for all employees. However, recognizing that in some cases, overtime is necessary, in general, overtime accrued will be taken off as compensatory leave.

Rule 27 Hospitality and Representation

The Executive Secretary or his/her designee may authorize an employee to engage in hospitality and representational activities. The employee shall promptly submit fully documented claims for

expenses incurred in the course of such activities. The annual total of such claims for all employees so authorized may not exceed the current allotment for this program in the annual budget of the Commission.

SECTION F. HOURS OF WORK

Rule 28 Hours

Weekly required hours of work for each employee shall be guided by the provisions of each relevant collective agreement of the Public Service of Canada. The Executive Secretary shall establish daily working hours, and may adjust them as necessary.

SECTION G. LEAVE

Rule 29 Vacation Leave

Employees earned vacation leave will be guided by each relevant collective agreement of the Public Service of Canada.

Rule 30 Carry-over Provision

Employees who have not used their earned vacation leave in any given year may carry over their vacation hours to a subsequent year in accordance with the carry-over provision in the respective collective agreements of the Canadian Public Service.

Rule 31 Scheduling of Vacation Leave and Compensatory Time Off

(a) The Executive Secretary will allocate staff vacation leave and compensatory time off so as to minimize disruption of normal staff operations and the functioning of the Commission.

(b) In allocating such leave and time off, the Executive Secretary will have taken into account the personal circumstances, needs and preferences of the employee.

(c) Vacation leave and compensatory time off may be taken in one or more periods.

Rule 32 Other Leave

The Executive Secretary may approve other leave (i.e., for bereavement purposes, volunteer days, family related leave, leave without pay, or emergency situations). Such leave shall be guided by the relevant collective agreements in the Public Service of Canada.

Rule 33 Monetary Compensation for Unused Leave

An employee may apply, upon separation, for monetary compensation for any unused vacation leave or Compensatory leave credits. Such compensation will be paid at the rate of the employee's salary at the time of termination.

Rule 34 Sick Leave

Employees shall be granted sick leave with pay in a manner consistent with the relevant collective agreement of the Public Service of Canada.

Rule 35 Medical Certificates

Staff may be required to submit a medical certificate for any period of sick leave in excess of 3 consecutive working days after using a total of 7 days in a year.

Rule 36 Maternity and Parental Leave

Employees may apply to the Executive Secretary for maternity or parental leave consistent with Public Service of Canada standards.

Rule 37 Statutory Holidays

Staff shall be entitled to the following statutory holidays:

(a) New Year's Day

(b) Good Friday

(c) Easter Monday

(d) the day fixed by proclamation of the Governor in Council for celebration of the Sovereign's birthday

(e) Canada Day

(f) Labour Day

(g) the day fixed by proclamation of the Governor in Council as a general day of Thanksgiving

(h) Remembrance Day

(i) Christmas Day

(j) Boxing Day

(k) B.C. Day

(l) one additional day when proclaimed by an Act of Parliament as a National Holiday.

SECTION H. BENEFITS

Rule 38 Medical, Extended Health Care, Dental Care, Group Life and Disability Insurance

The Executive Secretary shall make appropriate arrangements for coverage of these benefits for all qualifying staff. The Executive Secretary shall ensure that provisions are made in the budget for the payment of the employer costs. Qualifying staff shall participate in and pay the employee share and any additional costs for extra benefits. These benefits may be modified from time to time by the Commission.

Rule 39 Participation in International Fisheries Commission Pension Society

Qualifying employees shall participate in the pension plan of the International Fisheries Commission Pension Society established by Canada and the United States for employees of international commissions.

Rule 40 Accidents

The Executive Secretary shall arrange for coverage under WorkSafeBC programs.
Accidents at work must be reported immediately to the Joint Occupational Health and Safety Committee.

SECTION I. TRAVEL

Rule 41 Official Travel

All official travel shall be in accordance with a PSC travel policy prepared by the Executive Secretary.

SECTION J. SEPARATION FROM SERVICE

Rule 42 Notice of Intention to Resign

Employees may resign by providing at least one month's notice in writing, or notice of such lesser length, as may be approved by the Executive Secretary.

Rule 43 Severance Pay

Severance pay in the event of termination as a result of lay-off, retirement or death, shall total one week's pay for each completed year of service and, in the case of a partial year of continuous employment, one (1) week’s pay multiplied by the number of days of continuous employment divided by three hundred and sixty five (365), up to a maximum of 30 weeks. Severance pay in the event of resignation after completion of ten or more years of service shall total 1/2 week for each year of continuous full year service and, in the case of a partial year of continuous employment, one (1) week’s pay multiplied by the number of days of continuous employment divided by three hundred and sixty five (365), up to a maximum of 13 weeks.

Rule 44 Dismissal

If at any time, the Executive Secretary considers that a staff member does not give satisfactory service or fails to comply with the duties and obligations set out in these Rules, the staff member will receive a formal written warning. If the performance does not improve or the employee continues to fail to comply with the duties and obligations set out in the Rules, a second formal written warning will be issued and if necessary, other disciplinary actions (e.g. suspension, demotion) may follow. If after the second formal written warning the staff member's performance does not improve to a satisfactory standard, the appointment of the staff member may be terminated upon written notice of one month in advance (or equivalent pay in lieu) subject to the prior notification of the Chair of the Commission. In the case of serious misconduct by a staff member that threatens the Commission's operations, staff safety, or reputation (for example, a criminal offence such as theft, intentional breach of confidentiality etc.), appointment of the staff member may be terminated without prior warning.

SECTION K. APPLICATION OF REGULATIONS

Rule 45 Interpretation and grievances

Grievances from staff members shall be addressed in accordance with a policy developed by the Executive Secretary and approved by the Commission.

Rule 46 Amendments

The Executive Secretary shall inform the Commission of any relevant matters not referred to in the regulations that may have come to his attention and the Commission may amend the regulations accordingly.

CHAPTER XI

REVIEW, AMENDMENT AND INTERPRETATION

Rule 1 Amendment.

The Pacific Salmon Commission shall have the power to add, repeal, or otherwise amend any chapter or provision of these bylaws. Any amendment shall be taken in accordance with these bylaws upon the approval of each national section.

Rule 2 Provisional Rules.

These bylaws are adopted provisionally. At its second annual meeting the Commission shall review these bylaws, make such amendments as it deems appropriate and adopt final bylaws of the Pacific Salmon Commission.

Rule 3 Interpretation.

Nothing in these bylaws shall be interpreted to modify or supersede any provisions of the Pacific Salmon Treaty.

APPENDIX I GLOSSARY OF TERMS

Commissioner: For the purposes of these bylaws, one of up to 16 Commissioners or Alternate Commissioners appointed by the Parties to represent them on the Pacific Salmon Commission

National Section: The ensemble of Commissioners, advisors, and members of PSC subsidiary bodies who participate in the Commission process to represent Canada or the United States

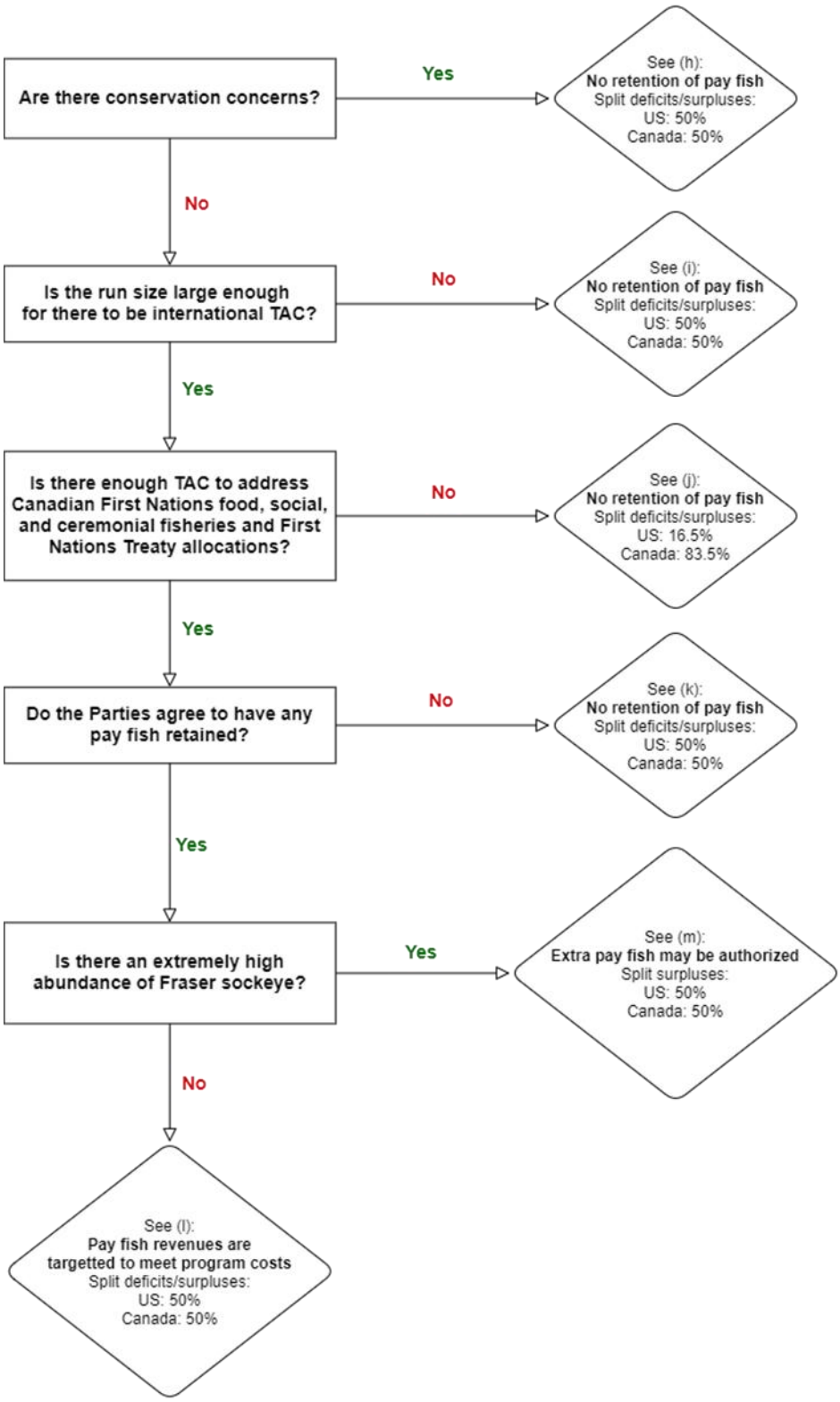
Pacific Salmon Commission (PSC or the Commission): The international organization established by the Pacific Salmon Treaty and comprising not more than eight Commissioners, of whom not more than four shall be appointed by each Party (each Party may also appoint up to four alternate Commissioners)

Parties: The national governments of Canada and the United States, as Parties to the Pacific Salmon Treaty

Secretariat: The staff retained by the Commission, led by an Executive Secretary, and headquartered in Vancouver, British Columbia to provide support services and scientific advice as per the terms of the Pacific Salmon Treaty and the Commission's bylaws

Subsidiary bodies: The various Panels, Committees, Joint Technical Committees, and Working Groups established by the Commission to execute certain duties and provide advice to the Commission pursuant to the Pacific Salmon Treaty, Commission decisions, or these bylaws

APPENDIX II TEST FISHING REVOLVING FUND DECISION TREE



[APPENDIX III CODE OF CONDUCT FOR OFFICERS AND DELEGATES

I. Application

This Code of Conduct (Code) applies to all Pacific Salmon Commission (PSC) officers and delegates[1] unless otherwise noted. The Code applies throughout the Commission and is consistent with the Guidelines for the Conduct of Technical Committee members found in the PSC bylaws, Chapter VI.

II. Standards

The Code establishes ethical standards for PSC officers and delegates, who shall strive to conduct themselves in accordance with these standards as representatives for their country. The code is based on respect, responsibility, fairness, and honesty.

Respect: Respect is demonstrating a high regard for oneself, others, and the resources entrusted to them. Those resources may include people, time, money, reputation, the safety of others, and natural or environmental resources. An environment of respect engenders trust, confidence, and excellence by fostering cooperation in an environment where diverse perspectives and views are encouraged and valued. Delegates bring and clarify their interests openly, respectfully, and listen to understand the interests of others in the process of decision making.

III. Responsibilities

PSC officers and delegates shall perform all duties associated with their positions diligently, impartially, conscientiously, respectfully, and to the best of their ability. In the performance of their duties, they must:

a. be able to express views clearly and concisely and be prepared to achieve acceptable outcomes and compromises where necessary;

b. be respectful towards other officers, delegates, and Secretariat staff;

c. act in the best interests of the resource as a whole;

d. adhere to and respect the rules of confidentiality as outlined below;

e. contribute to discussion in an objective and impartial manner and avoid pursuing personal agendas or self-interests;

f. be prepared to make the necessary commitment of time to ensure that they are fully informed on matters under consideration at a meeting;

g. have confidence and authority of their constituents or community to undertake their functions as an officer or delegate and be prepared to consult as necessary to effectively contribute to discussions.

<u>Confidentiality and non-disclosure</u>

a. It is understood that officers and delegates will consult with their constituents before and after meetings. However, officers and delegates must not disclose confidential PSC information.

b. All information received from the PSC, and not otherwise publicly available, is confidential and immune from mandatory public disclosure in each country[2]. Officers and delegates may receive confidential information and are required to follow

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[1] **Officer**: any chair, co-chair, or vice-chair of a PSC body. **Delegate**: any appointee to the PSC from Canada or the United States. The **Secretariat's** conduct is governed by the PSC bylaws, Chapter X, Section B.

[2] See PSC bylaws, Chapter II, Section F regarding the Commission's privileges and immunities.

the Commission's instructions as to its use. These instructions include taking measures for the prevention of loss, theft, corruption, and unapproved copying or other duplication.

Public comment

a. Pacific Salmon Commission, Panel, and/or Committee officers and delegates, may make public comment or engage the media on Pacific Salmon Treaty topics. The Pacific Salmon Commission, panel, and/or committee officers and delegates will not claim to speak on behalf of the Pacific Salmon Commission without approval of the respective national delegation chair. Officers and delegates must explicitly state that they are not speaking on behalf of the Commission unless their national section endorses such statements.

IV. Implementation

If a delegate does not fulfill the responsibilities or adhere to the standards above, the relevant officer from the body (i.e., from the same section as the delegate) should be consulted for appropriate response and guidance to the delegate. If an officer does not fulfill their responsibilities under the Code, the lead Commissioner of the relevant national section should be consulted for appropriate response and guidance to the delegate.]

Milestones for Annex IV Meetings 2025-2029

Task List

1/13-1/17 (Post Season Meeting)

Receive in camera input from panels and committees on chapter update concepts and priorities

2/10-2/14 (Annual Meeting)

Confirm schedules for non-Chinook chapter updates through February 2027

10/20-10/24 (Fall Meeting)

Routine Business

1/12-1/16 (Post Season Meeting)

Panels/committees exchange ideas for updating chapter language as appropriate

Routine Business

2/16-2/20 (Annual Meeting)

Confirm dates and format (in-person/virtual) for special discussion meetings anticipated in 2026-2027 beyond Oct/Jan/Feb routine schedule

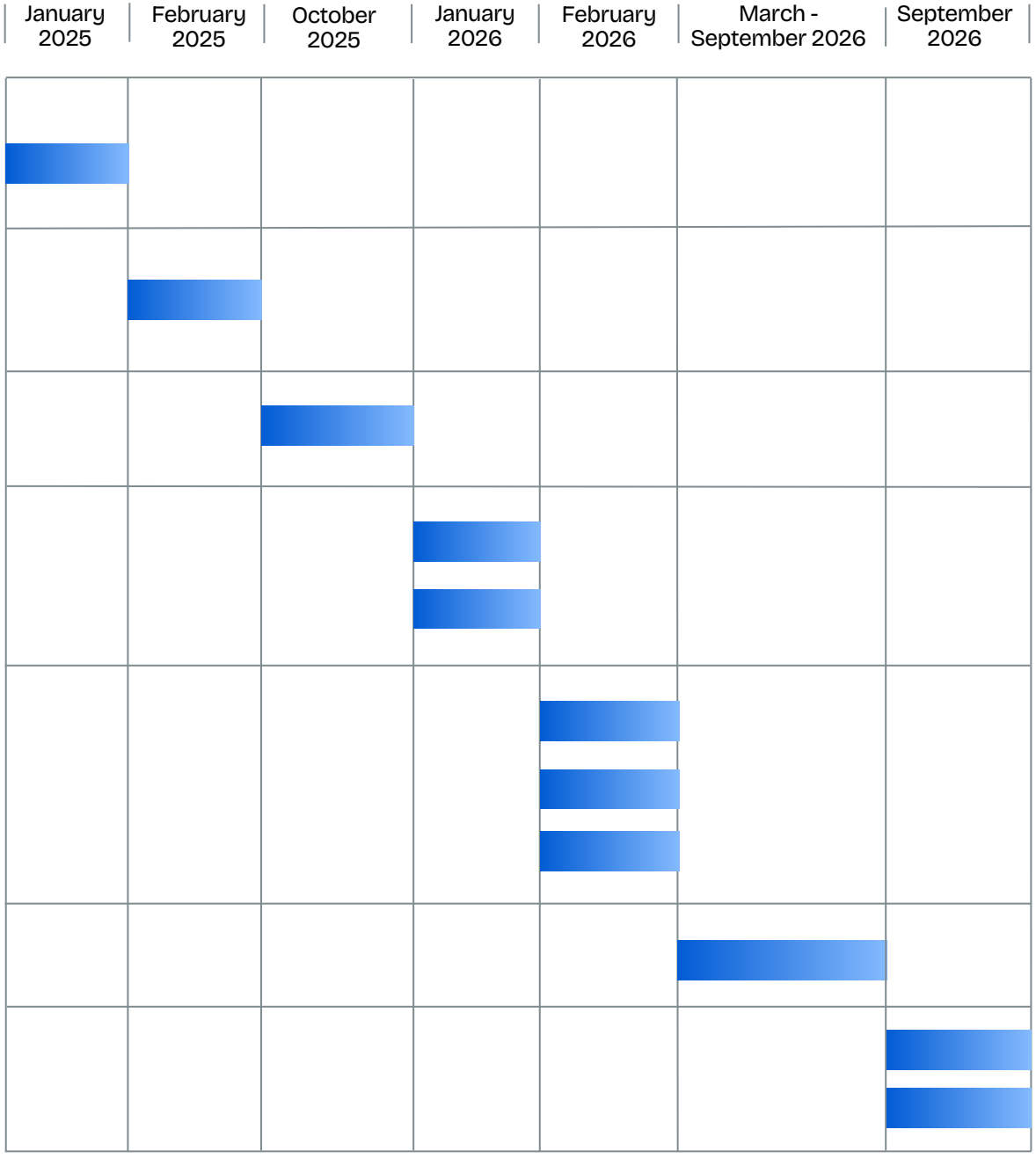
Panels/committees exchange ideas for updating chapter language as appropriate

Routine Business

National sections develop lists of desired changes to Chapter 3 and other text not under remit of a panel or committee

Consider size, membership and protocol for Chinook update team

Exchange ideas for Chapter 3 updates as appropriate



Milestones for Annex IV Meetings 2025-2029

Task List

10/19-10/23 (Fall Meeting)

Routine Business

Exchange ideas for Chapter 3 updates

1/11-1/15 (Post-Season Meeting)

Routine Business

Panels/committees exchange ideas for updating chapter language as appropriate

2/8-2/12 (Annual Meeting)

Routine Business

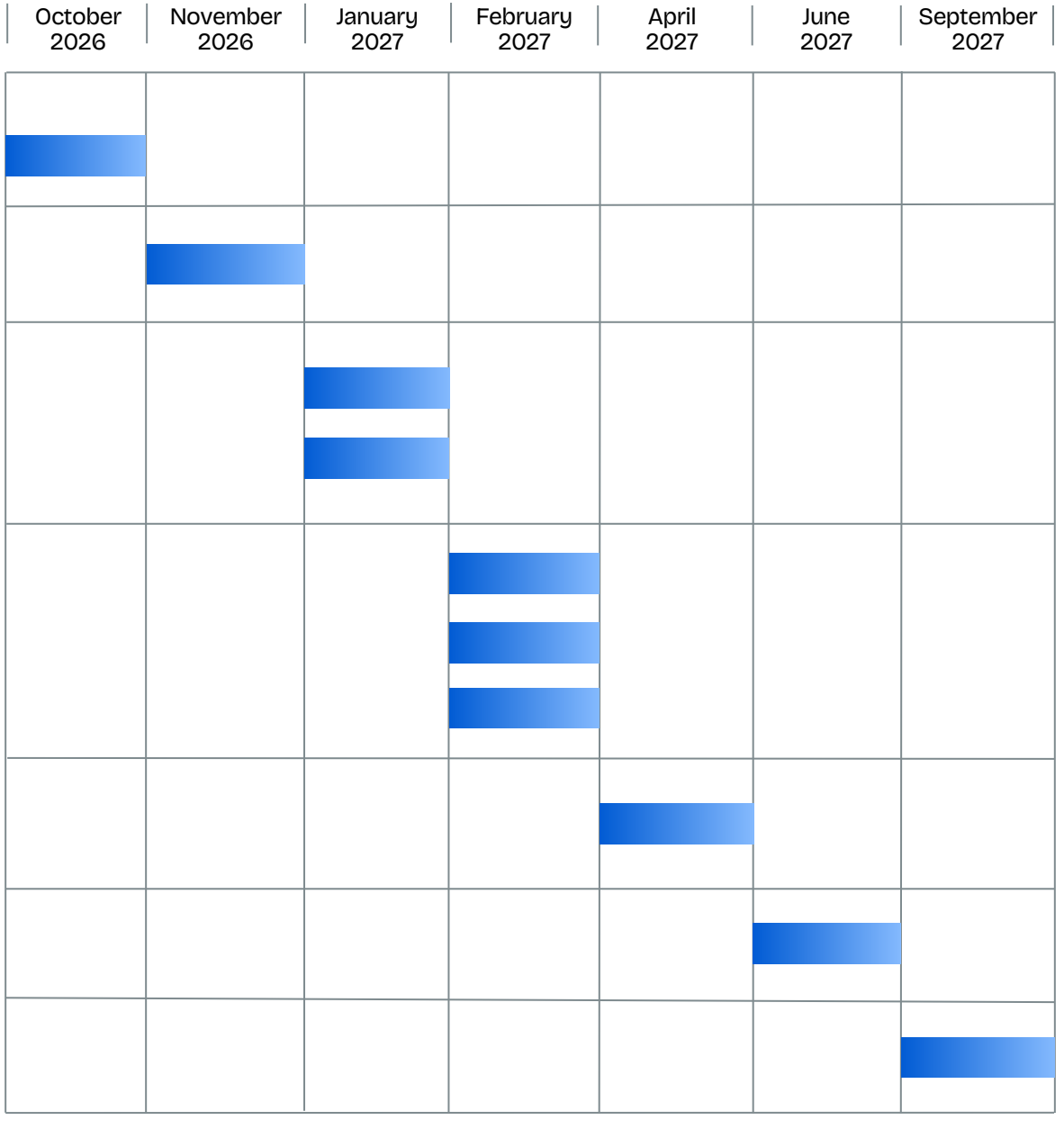
Panels/committees conclude discussions for Chapters 1, 2, 4, 5, and 6 and submit to Commissioners

Commissioners review panel/committee proposed amendments to Chapters 1, 2, 4, 5, and 6

Special discussion meeting for Chapter 3 and any outstanding issues from panels/committees

Special discussion meeting for Chapter 3 and any outstanding issues from panels/committees

Special discussion meeting for Chapter 3 and any outstanding issues from panels/committees



Milestones for Annex IV Meetings 2025-2029

Task List

October 2027 Fall Meeting

Routine Business

Chinook Discussion Team meeting

Final resolution of Ch. 3 discussions and any outstanding issues not finalized by panels.

January 2028 Post Season Meeting

Commissioners approve proposed amendments to Chapters 1, 2, 3, 4, 5, and 6 and transmit to national legal advisors

Legal review of amended text

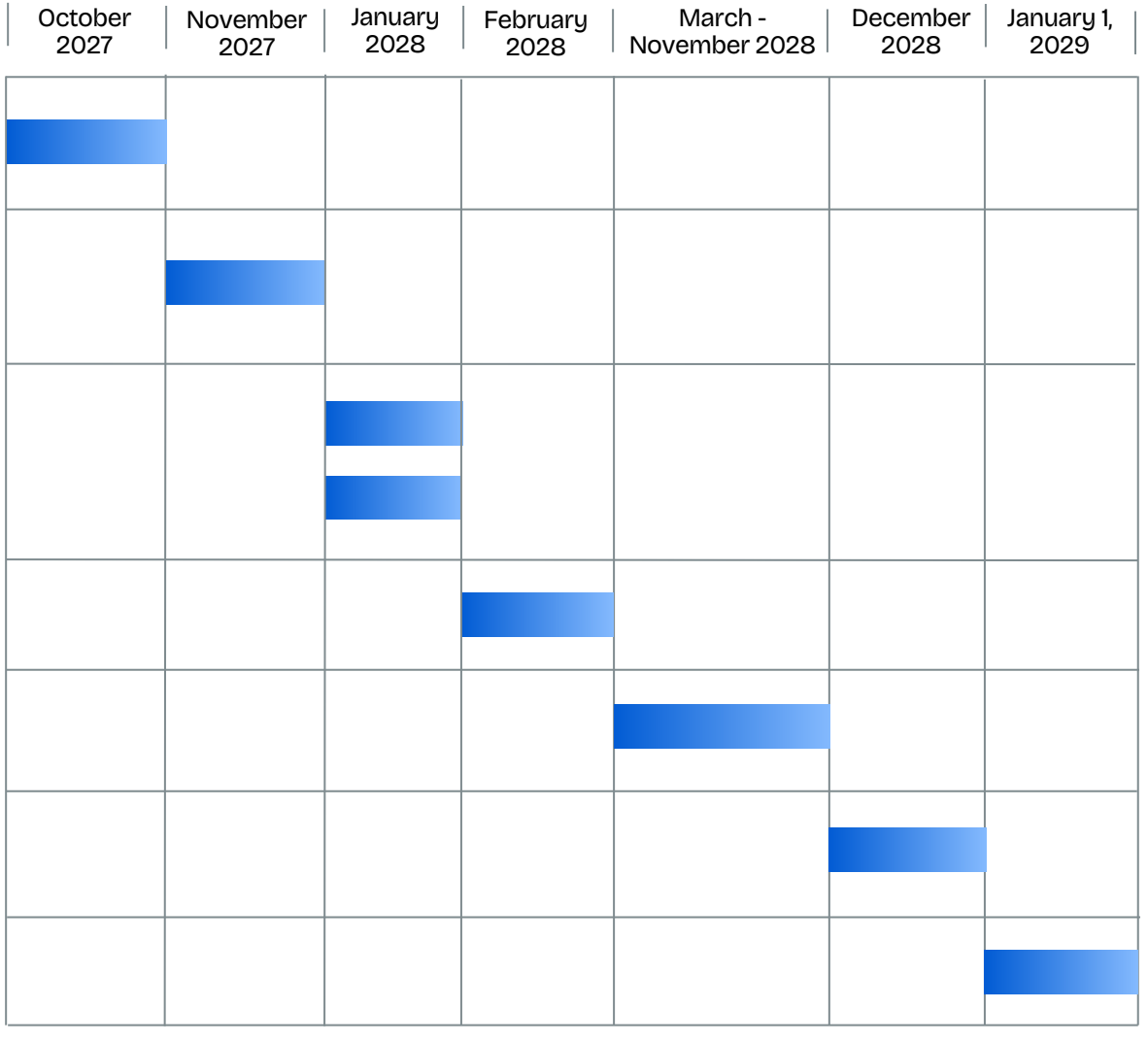
February 2028 Annual Meeting

Finalization of language and transmittal to capitals

Domestic processes for review and acceptance of proposed amendments

Exchange of diplomatic notes for entry into force of amended Annex IV by January 1, 2029

Amended chapters enter into force



2025 Grant Programs Update

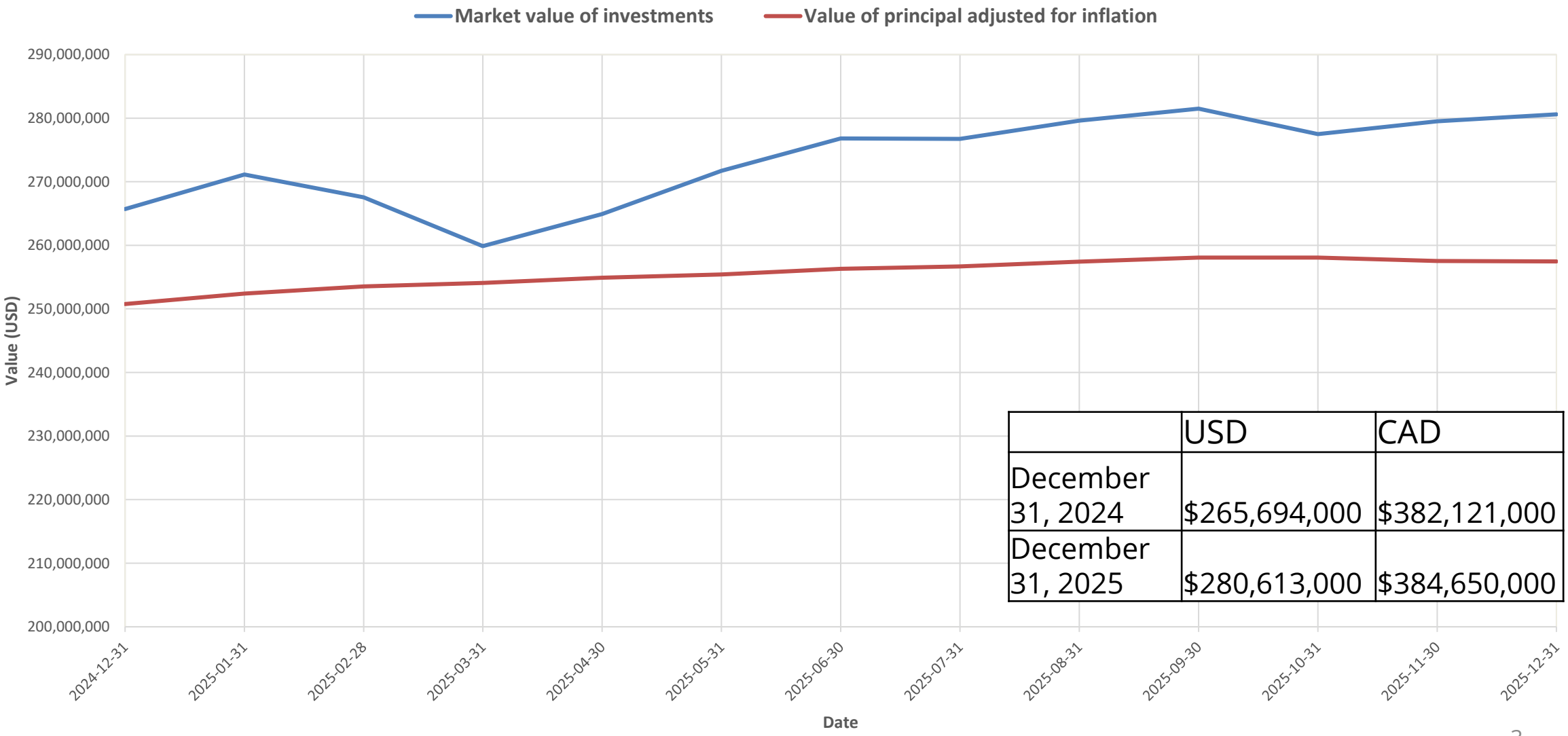
February 12, 2026

Sascha Bendt, Grant Program Manager

Agenda

- Southern Boundary and Northern Boundary and Transboundary Rivers Restoration and Enhancement Funds
  - Investment performance
  - 2025 projects
  - Call for Proposals for projects beginning in 2026
  - Overview of other business in 2025
- Mark Selective Fishery Fund
  - 2025 projects
  - Project Summary
- Yukon River Panel Restoration and Enhancement Fund
  - 2025 projects
  - Call for Proposals for projects beginning in 2026

Endowment Funds Investment Performance



	USD	CAD
December 31, 2024	$265,694,000	$382,121,000
December 31, 2025	$280,613,000	$384,650,000

2025 Projects selected for funding

Fund	# projects	Value of grants awarded ($USD millions)
Southern	46	4.5
Northern	37	5.0

Cumulative totals since inception

Fund	# projects	Value of grants awarded ($USD millions)
Southern	808	61.58
Northern	996	83.79
Combined*	1,804	145.37

* Excludes US $10M contributed to Chinook Sentinel Stocks Program

Call for Proposals for projects beginning in 2026

Fund	# project concepts received	$US M value of concept requests
Southern	122	12.9
Northern	68	7.8

Fund	# project concepts invited to detailed proposal stage	$US M value of invited detailed proposals
Southern	66	5.94
Northern	49	5.85

Overview of other business

- New business
  - Prior year communications activities
  - Grant Management System (GMS) implementation
- Process updates
  - Online application through GMS
  - Policy updates
- Routine business
  - Reviewing investment performance, interviewing existing managers
  - Reviewing Statement of Investment Policies and Procedures
- # Committee meetings in 2025
  - Southern Fund Committee: 3
  - Northern Fund Committee: 3
  - Joint Fund Committee: 2

2025 Report of the Mark Selective Fishery Fund

- 2025 Projects
- Project Summary

Projects selected for funding

	# projects	$US M value of grants awarded
2025	9	1.45

Cumulative totals since inception

Fund	# projects	$US M value of grants awarded
Combined	29	4.1

Completed projects

Project Name & Proponent	Dates Active	Funding Received
Mass marking of Hatchery Produced San Juan Chinook Salmon, Pacheedaht First Nation	March 1, 2023 – December 31, 2025	$163,834 CAD
MSF Regulations Database – FRIS Query/Export Tool, Fisheries and Oceans Canada	November 1, 2023 – March 31, 2025	$40,000 CAD
Mass Marking of hatchery produced Sarita Chinook salmon, Huu-ay-aht First Nations Government	August 1, 2024 – July 31, 2025	$75,000 CAD
Estimating Chinook salmon incidental mortality in recreational fisheries in British Columbia, Fisheries and Oceans Canada	November 1, 2024 – October 31, 2025	$85,000 CAD
Mass marking of hatchery produced Conuma River and Gold River Chinook salmon, Fisheries and Oceans Canada	November 1, 2024 – July 30, 2025	$402,500 CAD
Phase 2 of Populating a Coastwide Salmon Fishing Regulations Database, Pacific States Marine Fisheries Commission	November 1, 2024 – October 31, 2025	$183,380 USD

Ongoing Projects

Project Name & Proponent	Dates Active	Funding
Implementing a Canadian "Node" in the DIT Network Recommended in the CYER WG: Double Index Tagging and Escapement Recovery of Big Qualicum Chinook as an Audit of the CYER Analytical Methods being Implemented by the CTC, Fisheries and Oceans Canada	March 1, 2024 – November 30, 2026	$175,830 CAD
Mass marking of hatchery produced Conuma River and Gold River Chinook salmon and development of a complementary reference fishery in PFMA 25 (Nootka Sound and Esperanza Inlet), Fisheries and Oceans Canada	April 1, 2024 – February 1, 2027	$878,136 CAD
Assessment of post-release mortality in the recreational fishery: updating previous work and quantifying the use of best practices, University of British Columbia	July 2, 2025 – June 30, 2026	$77,469 CAD
Maintaining a Canadian "Node" in the DIT Network Recommended by the CYER WG: Double Index Tagging and Escapement Recovery of Big Qualicum Chinook as an Audit of the CYER Analytical Methods being Implemented by the CTC, Fisheries and Oceans Canada	April 1, 2027 – March 31, 2030	$176,986 CAD
Addressing Mass Marking Challenges in Chinook PST Indicator CWT Sampling Through Robertson Infrastructure Modifications, Fisheries and Oceans Canada	November 1, 2025 - December 31, 2026	$255,000 CAD
Estimating Chinook salmon post-release mortality in British Columbia recreational fisheries - Year 2, Fisheries and Oceans Canada	November 1, 2025 - March 31, 2027	$112,037 CAD
Replacement of Aging Manual Marking Trailer for Mass Marking at Conuma Hatchery, Fisheries and Oceans Canada	November 1, 2025 - July 31, 2026	$175,000 CAD
Mass marking of hatchery produced Conuma River and Gold River Chinook salmon, Fisheries and Oceans Canada	November 1, 2025 - July 31, 2026	$376,800 CAD

Ongoing Projects (cont...)

Project Name & Proponent	Dates Active	Funding
Using hydroacoustic monitoring to support in-season abundance assessments, estimate in-season exploitation rates, and ground-truth a Mark-Selective Fishery algorithm for Skagit River Spring and Summer/Fall Chinook, Washington Department of Fish & Wildlife	January 1, 2026 - December 31, 2027	$147,161 USD
Coded Wire Tag Recovery Electronic Sampling Equipment for Treaty Tribes of Western Washington, Northwest Indian Fisheries Commission	November 1, 2025 - June 30, 2026	$149,650 to $229,650 USD*
Phase 3 of Populating a Coastwide Salmon Fishing Regulations Database, Pacific States Marine Fisheries Commission	December 3, 2025 - June 30, 2027	$276,588 USD
WDFW Columbia River Emerging Commercial Fishery Sampling, Washington Department of Fish & Wildlife	January 1, 2026 - December 31, 2026	$131,962 USD
Increasing the sampling capacity in a mark selective tangle net fishery for spring Chinook in the Nooksack River, Lummi Indian Business Council	March 1, 2026 - December 31, 2026	$79,062 USD

*pending any residual funds in the MSF Fund account from interest or underspent projects

Yukon River Panel Restoration & Enhancement Fund

2025 Projects selected for funding

# projects	$US M value of grants awarded
23	1.62

Call for Proposals for projects beginning in 2026

# project proposals received	$US M value of project requests
31	2.45

Thank you

- More information on all PSC Grant Programs is available on the PSC website.
- Contact funds@psc.org with any questions.

Sascha Bendt
Grant Program Manager
bendt@psc.org

PACIFIC SALMON COMMISSION

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

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Annual Report of the Southern Boundary Restoration and Enhancement Fund and the Northern Boundary and Transboundary Rivers Restoration and Enhancement Fund for the year 2025.

Introduction

In June of 1999, the United States and Canada reached a comprehensive new agreement (the "1999 Agreement") under the 1985 Pacific Salmon Treaty. Among other provisions, the 1999 Agreement established two bilateral funds: the Northern Boundary and Transboundary Rivers Restoration and Enhancement Fund (Northern Fund); and the Southern Boundary Restoration and Enhancement Fund (Southern Fund). The purpose of the two funds is to support activities in both countries that develop improved information for fishery resource management, rehabilitate and restore marine and freshwater habitat, and enhance wild stock production through low technology techniques. The United States agreed to capitalize the Northern and Southern Funds in the amounts of $75 million USD and $65 million USD respectively. Canada also contributed $500,000 CAD. The 1999 Agreement also established a Northern Fund Committee and a Southern Fund Committee, each comprised of three nationals from each country, to oversee investment of the Funds' assets and make decisions about expenditures on projects. Only the earnings from investments can be spent on projects.

Committee Members

Northern Fund Committee

Canada:

Mr. Steve Gotch
Chief Russ Jones
Mr. John McCulloch

United States:

Mr. Doug Vincent-Lang
Mr. Bill Auger
Dr. Jamal Moss

Southern Fund Committee

Canada:

Mr. Neil Davis
Dr. Don Hall
Ms. Sue Farlinger

United States:

Mr. James Scott
Dr. Peter Dygert
Mr. Joe Oatman

Executive Summary and Market Environment Summary

- The market value of the fund on December 31, 2025, was approximately $280,613,000 USD or $384,650,000 CAD.
- The markets experienced significant volatility and uncertainty in 2025 but ended with both equities and bonds adding value over the year. In the first quarter, markets were marked by heightened uncertainty related to potential trade tensions and tariff announcements, and Bank of Canada interest rates moved lower following the easing cycle that had begun in mid-2024. In the second quarter, global equities rebounded sharply following April's tariff-driven sell-off and central banks held rates steady as they took a wait-and-see approach. In the third quarter, global equity markets extended their gains, supported by broad-based strength across regions. The positive performance continued into the fourth quarter as the Bank of Canada made two more rate cuts to end the year at a policy rate of 2.25% (a decrease of 1% over the year). Overall, as borrowing costs gradually eased, the economic backdrop remained challenged by slowing domestic demand and increasing uncertainty around U.S. trade policy. Escalating tariff rhetoric and shifting positions from the U.S. government weighed on business confidence, particularly for export-oriented sectors. These dynamics, combined with heightened geopolitical and policy uncertainty, played a key role in driving financial market volatility, and resulted in frequent swings in investor sentiment.
- In 2025 the Southern Fund supported 46 projects. Grants awarded totaled $4.5 million USD. The Northern Fund supported 37 projects and grants awarded totaled $5 million USD.
- Since 2004, the Northern and Southern Fund Committees have approved grants of $145.37 million USD to a total of 1804 projects. In addition, the Funds contributed $10 million USD to the Sentinel Stocks Program.
- In 2025 the Northern and Southern Fund Committee members met together as a Joint Fund Committee on two occasions (May 5, and November 13). The Northern Fund Committee met on three occasions, the Southern Fund Committee met on three occasions, including a one-day project site visit to the Fraser River watershed. Meetings were held in hybrid formats.
- Ms. Sue Farlinger was appointed to the Canadian Section of the Southern Fund Committee on October 1, 2025, replacing Mr. Mike Griswold.

Investment Review

Over the year, current available data shows the investment portfolio had net returns of approximately 4.3% in CAD (9.5% in USD). For 2025, current data indicates that the portfolio fell shy of its inflation plus 3.5% target in Canadian dollar terms but exceeded it in US dollar terms. Canadian dollar appreciation relative to the US dollar was 5.0% over 2025.

Public equity markets delivered another year of strong absolute performance in 2025 in both CAD and USD. Fixed income markets also posted positive results in both currencies. Infrastructure investments remained stable and positive in both currencies in 2025. U.S. real estate markets continued to face headwinds in 2025 with certain segments of the market continuing to struggle.

Despite the market volatility experienced throughout the year, the global stock market continued to perform well in 2025, though gains were not as strong as the prior year; the MSCI World (Net) Index delivered a return of 15.4% (in CAD) for the year. The theme of equity markets being dominated by large U.S. technology firms has continued and made it a difficult environment for active fund managers. Both the portfolio's active global equity managers, Morgan Stanley and PH&N, failed to keep pace and underperformed their benchmarks over the past year. The portfolio's passive U.S. equity manager, BlackRock, continued to achieve its objective of replicating the performance of its benchmark index. The broad U.S. equity market return was around 11.7% (in CAD) for 2025.

Fixed income had modestly positive performance but is now operating in a lower interest rate environment as the Bank of Canada's policy interest rate is now at 2.25%. In 2025 and in CAD, the FTSE Canada Short Term Bond Index returned 3.9% and the FTSE Canada Universe Bond Index returned 2.6%. Both the PH&N Core Plus Bond and ACM mandates added value compared to their benchmarks during the year.

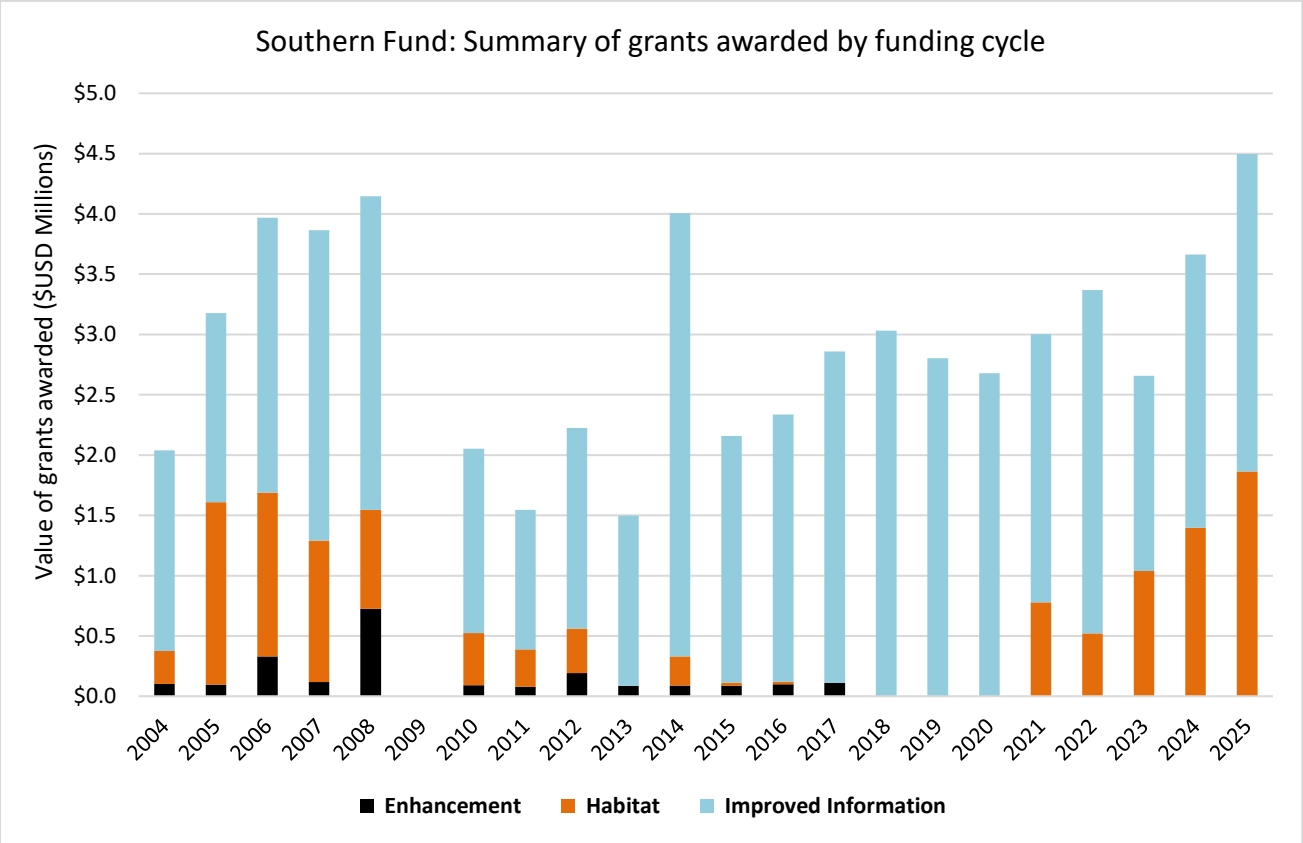
The portfolio's alternative investments delivered mixed results in 2025. The infrastructure managers did well; IFM generated 9.2% in CAD in 2025, and Axium is also expected to report positive absolute performance for the year. However, the U.S. Real Estate manager, Invesco, experienced negative absolute performance in USD in 2025 as the commercial real estate market and the manager's fund continues to struggle.

Contributed capital and asset value of the individual funds as of December 31st, 2025, stood as follows:

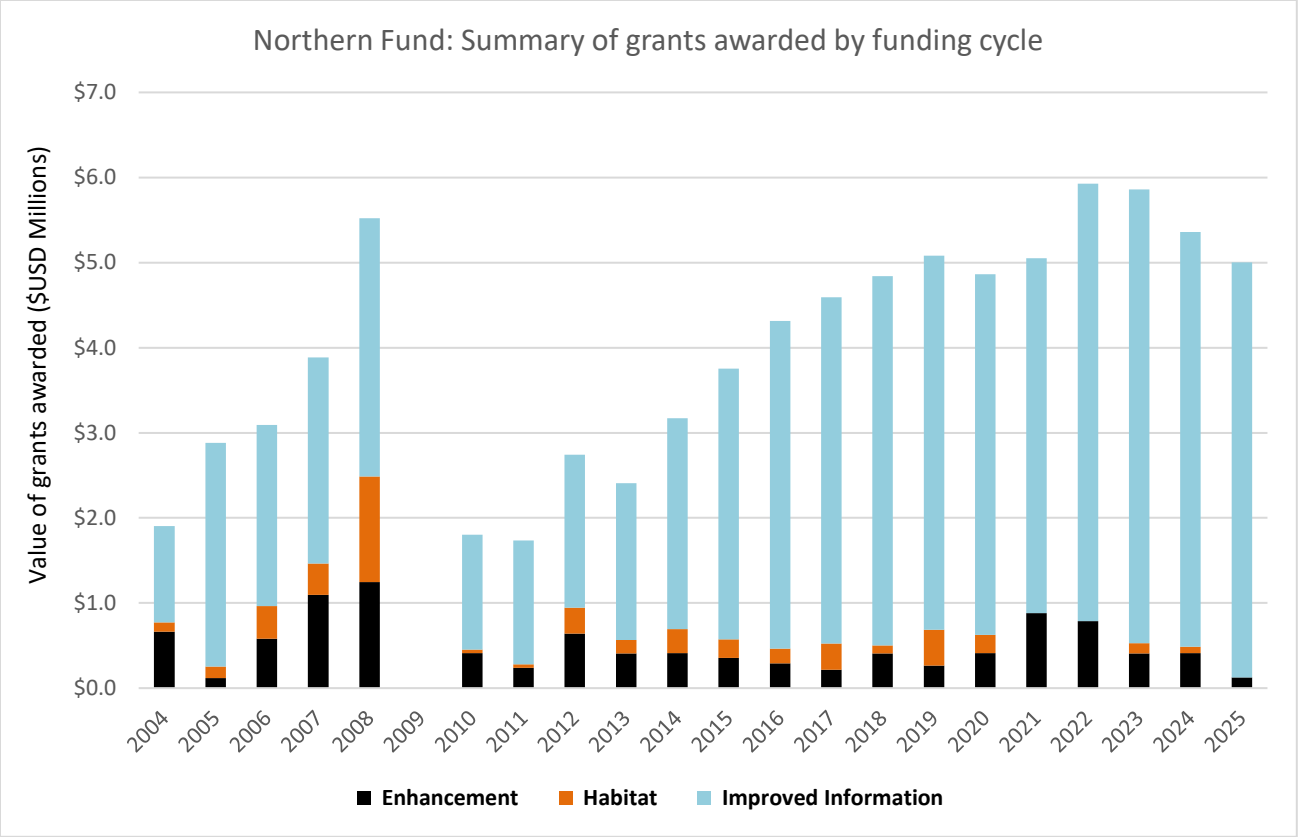
	Contributed Capital		**Asset Value**	
Northern:	$75,000,000 USD	$112,388,000 CAD	$146,836,000 USD	$201,275,000 CAD
Southern:	$65,000,000 USD	$97,408,000 CAD	$133,777,000 USD	$183,375,000 CAD

2025 Project Funding

In 2025 the Southern Fund supported 46 projects. Grants awarded totaled $4.5 million USD. Projects addressing specific priorities identified by the PSC's Fraser River Panel, Southern Panel, Chinook Technical Committee, and Okanagan Working Group accounted for $1.88 million USD of grants awarded (42%).

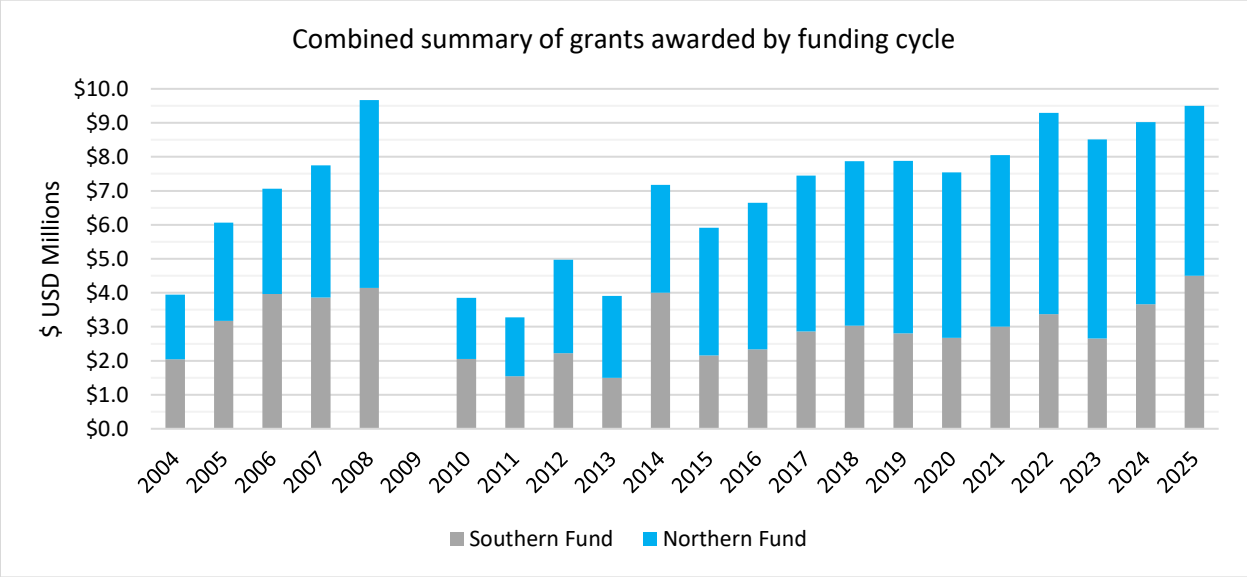


In 2025 the Northern Fund supported 37 projects. Grants awarded totaled $5 million USD. Two projects with a total value of $124,713 USD were classified as Enhancement projects, 35 projects with a total value of $4.88 million USD were classified as Improved Information projects.



Between 2004 and 2025 the Northern Fund has awarded grants worth $83.79 million USD to 996 projects. Over this same period the Southern Fund has granted $61.58 million USD to 808 projects.

Total Fund project grants awarded to date are $145.37 million USD in support of 1,804 projects. Included in this total is $5 million USD from the Southern Fund to the Salish Sea Marine Survival Program. In addition to these amounts, the Chinook Sentinel Stocks Program was funded jointly by the Northern and Southern Funds between 2009 and 2014 for $10 million USD.



Joint Fund Committee Meetings

The Northern and Southern Fund Committees have agreed that given the congruent nature of their agendas, their decision to combine the funds into a single master account for investment management purposes, and the efficiencies involved with respect to interaction with investment advisors and managers, it is appropriate to meet periodically as a Joint Fund Committee. The two Fund Committees met together as a Joint Fund Committee twice in 2025.

Spring Meeting: May 5, 2025

Members attended the meeting both in-person at the PSC offices in Vancouver and virtually. The agenda included:

- Receipt and review of Q4 (2024) and Q1 (2025) investment performance reports and an update on the impact to investments from U.S. administration actions and tariff implications from the Committee's investment consultants, George and Bell Consulting.
- An update on recovering withholding tax paid on income received on investments with Morgan Stanley and PH&N Institutional for the year 2020.
- Review of the costs of fund administration in the previous financial year, and review and approval of the budget for fund administration in FY 2025/26.
- A review of the workplan for the Grant Program Manager, and review of the Secretariat staff support provided in the prior year.
- Presentation of the support provided to the Committees from the Publications Manager, implementation of the grants management system, and an update on communications activities for the prior year.

Fall Meeting: November 13, 2025

Members attended the meeting both in-person at the PSC offices in Vancouver and virtually. The agenda included:

- The receipt and review of Q2 and Q3 investment performance reports, and comparison of similar funds in terms of asset mix and returns, from the Committee's investment consultants, Convyta (formerly George and Bell Consulting).
- An update on the economic outlook and impact to investments from U.S. administration actions.
- A discussion around the current asset mix strategy, and anticipated Invesco redemption timeline.
- Review of the Statement of Investment Policies and Procedures.
- Presentations / interviews with three of the Committees' current investment managers: Morgan Stanley, Invesco, and PH&N Institutional.
- Review of the results of the FY 2024/2025 audit of the Funds and associated financial statements.
- An update on administration expenses for the current fiscal year and presentation of the budget for salaries and benefits for 2026/27 fiscal.

Northern Fund Committee Meetings

The Northern Fund Committee met on three occasions in 2025.

1. February 18 (hybrid meeting): The Committee met to make final decisions about the projects to support in 2025. The Committee also reviewed the Northern Fund Project Showcase presentation at the January 2025 PSC Meeting; reviewed project report structure and guidance; and considered a draft itinerary and budget for a field trip in 2025.
2. May 5 (hybrid meeting): The Committee met to confirm the scope, priorities, and deadline for the 2026 Northern Fund Call for Proposals. The Committee also received updates on project reporting and project change requests.
3. October 7 and 8 (hybrid meeting): The Committee met to make decisions about the selection of project concepts to advance to the detailed proposal stage. The Committee also reviewed the detailed proposal application form; reviewed actual (vs. budgeted) expenditures on Northern Fund projects; and plans for the project presentation at the January 2026 PSC Meeting.

Southern Fund Committee Meetings

The Southern Fund Committee met on three occasions in 2025.

1. February 25 (hybrid meeting): The Committee met to make final decisions about the projects to support in 2025. The Committee also reviewed their proposal submission procedure and made amendments to their change request policy.
2. May 7 (virtual meeting): The Committee met to agree on the scope, priorities, and deadline for the 2026 Southern Fund Call for Proposals. The Committee also adopted changes to their submission review process and change request policy.
3. September 24-25 (in-person): Committee members and Grant Program staff undertook a field trip to the Fraser Valley and the PSC Mission Hydroacoustic site, in the Fraser River watershed. The Committee met to make decisions about the project concepts to advance to the detailed proposal stage. The Committee also reviewed the stage two application form and received a presentation on actual (vs. granted) expenditures of Southern Fund projects for 2015-2024.

Committee Appointments

Ms. Sue Farlinger was appointed to the Canadian Section of the Southern Fund Committee in October 2025, replacing Mr. Mike Griswold.

Call for Proposals for projects in 2026/27

Both Fund Committees issued a Call for Proposals in June 2025 for projects starting in 2026.

The Southern Fund Committee focused its 2026 Call for Proposals on habitat restoration projects and specific priorities identified by the PSC's Fraser River and Southern Panels, Chinook Technical Committee, and Okanagan Work Group. In response, the Committee received 122 proposals requesting

approximately $12.9 million USD. During the first-round review meeting the Committee selected 66 of these proposals to move to the second stage. The final decisions on 2026 funding will be made in February 2026.

The Northern Fund Committee focused its 2026 Call for Proposals on projects seeking to develop improved information for resource management; the rehabilitation and restoration of marine and freshwater fish habitat; the enhancement of wild-stock production through low technology techniques and proposals responsive to the recommendations and objectives set out within the PSC's Transboundary Panel Strategic Salmon Plan and the Northern Panel Strategic Salmon Plan. The Committee received a total of 68 concept stage proposals requesting approximately $7.8 million USD. 49 proposals were selected to move to the second-round detailed proposal stage. Bilateral technical reviews of the detailed proposals took place in January 2026 and final funding decisions will be made in February 2026.

PACIFIC SALMON COMMISSION

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

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Summary Report of the Mark Selective Fishery Fund 2025

Introduction

In the 2019 amendments to the Pacific Salmon Treaty (PST), Chapter 3, paragraph 4(g)(v), led the U.S. to establish a Mark Selective Fishery (MSF) Fund (Fund) to assist fishery management agencies and partners with implementing MSFs in each country.

The highest priority of the Fund is to provide one-time equipment purchases or short-term (duration of ≤ 3 years) studies rather than supporting ongoing annual programs. The Fund supports a competitive grant program to a) mass-mark or sample hatchery-produced Chinook salmon, b) estimate incidental mortality, and c) maintain and improve the ability to estimate exploitation rates on Chinook salmon indicator stocks encountered in MSFs. This work could include improvements and development of bilateral analytical tools.

The U.S. provided $75,000 USD to initiate the Fund in 2019 and an additional $1.75 million USD in 2020 and 2021, respectively. The U.S. provided an additional $396,000 USD in September 2024.

Committee Members

Canada:	**United States:**
Ms. Erika Watkins	Mr. Craig Bowhay
Mr. Janvier Doire	Ms. Danielle Evenson
Mr. Laurie Milligan	Dr. Jake Kvistad
	Ms. Marianne McClure
Canada Alternates	**United States Alternates:**
Mr. Peter Hall	N/A

Executive Summary

- In 2025 the MSF Fund Committee's (Committee) Request for Proposals (RFP) was open between June 2 and August 1, 2025. The Pacific Salmon Commission (PSC) made the balance of funds estimated at $1.45M USD available in this round of funding. The Fund fully supported seven projects, partially supported two projects, and supported an increase in funding of a previously supported project, for a total of ten projects supported. Grants awarded totaled $1,449,946 USD.
- Since 2021, at the recommendation of the Committee, the PSC has approved grants of $4.1M USD to a total of 29 projects.
- The Terms of Reference for the Fund provide that 50% of the funding allocated each year shall be available to Canada and 50% to the U.S., unless otherwise determined by the Commission. At the October 2025 PSC Fall Meeting the PSC waived the 50% bilateral allocation for 2025.
- All funds will be exhausted with existing projects running through 2030.

Project Funding and Summary

In 2021 the Fund supported three projects, two completed in 2022, and one completed in 2024. In 2022 the Fund supported five projects, three completed in 2023, one completed in 2024, and one completed in 2025. In 2023 the Fund supported six projects, two completed in 2024, two completed in 2025, and two remain ongoing. In 2024 the Fund supported six projects, three completed in 2025, one project was cancelled, and two remain ongoing. In 2025 the Fund supported nine projects. Grants awarded across all years' total $4.1M USD to 29 projects.

14 projects overall are ongoing or scheduled to begin in 2026. Final project reports and interim progress reports are attached as an appendix.

Completed Project Summary (2025)

MSF-03-22: Mass marking of Hatchery Produced San Juan Chinook Salmon, Pacheedaht First Nation (PFN)

This project was active from March 1, 2023, through December 31, 2025, and received funding of $163,834 CAD. The project included three years of funding, with Year 1 beginning in brood year 2022, to mark hatchery-produced San Juan Chinook at the 4 Mile Hatchery, with the plan to mark all Chinook released from seapens and to increase the mark rate on the freshwater released Chinook (as hatchery infrastructure and staff capacity allow).

The objectives of the 3-year project were to:

1. Increase the mark rate of San Juan chinook salmon in the Strait of Juan de Fuca and Southwest Vancouver Island.
2. Increase the Proportion of Natural Influence (PNI) of chinook returning to the San Juan River through selective harvest of marked chinook in terminal fisheries.
3. Establish viable and sustainable terminal MSF opportunities on San Juan chinook in the future.
4. Enable the use of predominantly natural-origin broodstock for hatchery production while ensuring adequate levels of natural-origin spawners on the spawning grounds (through monitoring of PNI).

This project was part of a broader initiative between PFN and DFO to rebuild San Juan chinook stocks through restoration of river and estuarine habitats, improving hatchery enhancement strategies, better genetic management (using PNI), and reducing fishery impacts. PFN has made and will continue to make extensive investment in salmon stewardship initiatives including habitat restoration, research, adult and juvenile salmon monitoring (including fisheries), brood stock collection, and a collaborative focus on responsible hatchery enhancement with DFO. Mass marking and mark selective fisheries are seen as a key component of rebuilding San Juan chinook.

In Year 1, 87,365 hatchery chinook were marked and split between a seapen release and an estuary release. The overall mark rate was 18.3%. In Year 2, 122,566 chinook were marked and split between seapen, Fairy Lake, and upper river releases. The overall mark rate was 21.8%. In Year 3, all fish were marked and all released in the upper river (100% mark rate). The 3-year program was completed as planned, but there were challenges associated with hatchery infrastructure and capacity. The plan going forward is to continue with the 100% marking rate on San Juan chinook (external funding permitting) combined with the upper river release strategy.

MSF-23-01: MSF Regulations Database – FRIS Query/Export Tool, Fisheries and Oceans Canada (DFO)

This project was active from November 1, 2023, through March 31, 2025, and received funding of $40,000 CAD. This project supported Canada's ability to contribute to the development of a proposed multi-agency regulation database.

This successfully completed project developed a user-friendly query/export tool for DFO's Fishery Regulations Information System (FRIS) so that DFO Biologists/Managers can easily search for and extract current and historic fisheries regulations pertaining to Chinook and Coho salmon MSF regulations. This

enables MSF regulations to more easily be linked with recreational catch estimates and biological samples (e.g. CWT's – Coded Wire Tags). All goals for this project were successfully achieved.

MSF-23-04: Mass Marking of hatchery produced Sarita Chinook salmon, Huu-ay-aht First Nations (HFN) Government

This project was active from August 1, 2024, through July 31, 2025, and was a one-year continuation of MSF-06-21. This portion of the project received funding of $75,000 CAD.

This project was funded specifically for the mass marking of hatchery produced Sarita River Chinook salmon and sampling of returning adults. The work is part of a joint pilot effort by HFN and DFO to increase returns of Chinook salmon to the Sarita River by improving survivability under optimal rearing strategies at the Nitinat River Hatchery (NRH), enhancing habitat for natural spawners, increasing the PNI over time to maintain a viable natural spawning population, and to facilitate MSFs in terminal areas in the future.

Mass marking of the releases in spring of 2025 consisted of all fish being adipose fin clipped plus a percentage of those being coded wire tagged (CWT). Additionally, all fish were tracked genetically for parental based tagging. In addition to the 100% marking of releases, DFO and HFN staff conducted broodstock collections and escapement enumerations in September and October of 2024 as well as deadpitch and sampling of the HFN Mark Selective Fishery in 2024.

The multi-year marking project is anticipated to make a significant contribution to the understanding of how terminal mark selective fisheries might be implemented and enhanced through collaborative efforts by DFO and a BC First Nation. The results of this research will have applicability to other salmon populations in the Pacific Northwest. The specific project objectives of the project were:

1. Research and evaluate different rearing strategies that will improve survival, size and age at return to fisheries and escapement;
2. Enable the use of predominantly natural origin broodstock for hatchery production;
3. Increase the PNI for Chinook returning to the Sarita River from the current level of 0.12 to 0.5 through selective removals of hatchery fish in terminal fisheries (i.e., HFN Treaty fishery in lower river);
4. Adapt hatchery production goals over time and in step with habitat restoration successes by the HFN Watershed Renewal Program;
5. Enable a viable and sustainable mark selective fishery on Sarita Chinook salmon in the future; and
6. Provide marine survival estimates for Sarita Chinook salmon.

MSF-24-02: Estimating Chinook salmon incidental mortality in recreational fisheries in British Columbia, Fisheries and Oceans Canada

This project was active from November 1, 2024, through October 31, 2025, and received funding of $85,000 CAD.

In 2024, DFO Ecosystem Science Division and South Coast Stock Assessment began a pilot acoustic telemetry study in eastern Juan de Fuca Strait to quantify landing and post-release mortality rates of legal-sized (62 cm) Chinook salmon released from recreational fisheries. This project repeated the study in 2025 with a larger sample size.

DFO also began a collaborative study with the University of British Columbia to develop a hierarchical modelling framework to estimate spatial and temporal variability in post-release mortality rates, as well as to identify key ecological and capture-related drivers influencing survival.

Project Deliverables:

1. Deployment of at least 75 acoustic tags on Chinook salmon sampled in southern British Columbia reference fisheries and collection of associated biological data.
2. Summary of field work completed in 2025.
3. Preliminary report based on data available by Nov. 1, 2025.

Project Schedule: The project deliverables were completed within the designated timelines.

Monitoring and Evaluation: Preliminary survival analyses were completed, and the remaining acoustic detections data will be collected and collated by March 31, 2026. A theoretical model was also developed which will be finalized and fit to data by March 31, 2027.

Benefits: The project has provided additional estimates of landing and post-release mortality, two of the major components of fisheries-related incidental mortality, which can be incorporated into future stock assessments to better understand the risks and benefits of mark selective fisheries.

MSF-24-06: Mass marking of hatchery produced Conuma River and Gold River Chinook salmon, Fisheries and Oceans Canada

This project was active from November 1, 2024, through July 30, 2025, and received funding of $402,500 CAD. The proposed project plan was to mass mark, via adipose clip, the entire production of Chinook from the Conuma (up to three million) and Gold (up to five hundred thousand) Rivers. Manual marking was initiated on March 3rd and continued until April 28th for 39 days. Over that period 100% of the production of Conuma River (2,710,447 Chinook) and of Gold River (517,285 Chinook) were marked.

A total of 3,227,732 Chinook were manually marked with an average of 82,762 marks per day with a range from 44,411 to 106,116. Including brood year 2024, Conuma Chinook production has been 100% marked since brood year 2020. Adult returns in 2025 of Conuma stock will include all age classes (2-5) with 100% marking of the hatchery production. Gold River stock has been 100% marked since brood year 2023. It is hoped that continued marking will help to support the development of selective harvest opportunities within the Nootka/Esperanza area including terminal fisheries. Mass Marking will also help support broodstock management at key sites within the Nootka/Esperanza area and the evaluation of hatchery strays to other systems.

The project schedule was met and the target of successfully marking 100% of the Conuma and Gold River Chinook production was achieved.

MSF-24-07: Mass marking capacity expansion for DFO (Fisheries and Oceans Canada) Hatchery program, Fisheries and Oceans Canada

This project was scheduled to begin on October 1, 2024, and run until March 31, 2026. Due to the proponent being unable to leverage the balance of the capital funds needed to procure the Autofish Trailer, uncertainties with various tariffs and fiscal climate, the project was cancelled. Total funding awarded was $675,000 CAD, which remained in the Fund for the 2025 RFP.

MSF-24-09: Phase 2 of Populating a Coastwide Salmon Fishing Regulations Database, Pacific States Marine Fisheries Commission

This project was active from November 1, 2024, through October 31, 2025, and received funding of $183,380 USD. The project seeks to aid the PSC in accounting for the impact of mark-selective fishery regulations on salmon species exploitation rates and other analysis efforts though the development of a database that links coastwide salmon regulations to the existing catch sample data in information systems like the Regional Mark Information System (RMIS). The project objective was to implement phase 2 tasks focused on finalizing refinements and produce version 2.0 of the database, data model, and of the data entry form. Phase 2 also focused on initiating version 1.0 of the data query web-based interface based on agreed to mock-up during phase 1, continuing with data entry and scoping out the feasibility of using large language models to streamline the data entry process.

The project made solid progress despite encountering a larger scope than initially anticipated. Expanding staffing proved critical for maintaining momentum on data compilation while continuing database and application development. The project also delivered on its core objectives. It expanded from one to three staff, completed database version 2.0, launched the web application, and compiled substantial historical regulation datasets covering six Columbia River years and Southeast Alaska 2023.

The project ran generally on schedule with adaptations for scope refinements. Staffing expansion occurred early in the performance period, enabling accelerated data compilation. Database schema updates were completed in early 2025 as planned. Web application development proceeded on schedule despite data compilation challenges. GIS integration work is ongoing. The larger-than-expected scope for historical regulation compilation required focus refinement but did not prevent delivery of key milestones.

Ongoing Project Summary

MSF-23-03: Implementing a Canadian "Node" in the DIT Network Recommended in the CYER WG: Double Index Tagging and Escapement Recovery of Big Qualicum Chinook as an Audit of the CYER Analytical Methods being Implemented by the CTC, Fisheries and Oceans Canada

This project began on March 1, 2024, and is active until November 30, 2026. Initial funding was $170,330 CAD. In October, the Commission approved an increase in funds of $5,500 CAD due to increased equipment prices and brokerage fees, with total funding now $175,830 CAD.

This project will implement the first Canadian Chinook DIT indicator stock which will allow for an assessment of the accuracy of the CYER estimates developed using the adopted SIT methods for southern BC Chinook stocks impacted by MSFs.

The hatchery tagged and released an unmarked group of fish (200k) in the spring of 2024 and 2025, which is the same number of releases as the regular marked CWT release group. The hatchery implemented new practices to avoid confounding variables during release, and to ensure that both the unmarked and marked CWT release groups were as identical as possible with the exception of mark status. A tag loss study was conducted to determine the retention rate of the tags that were applied to both the marked and unmarked CWTd fish.

Goals achieved to date include:

- CWTd and released of the two cohorts of Chinook for the DIT stock
- Ordered and received escapement sampling at CDFO: now stored at the hatchery
- Escapement sampling of Age 2 CWTd unmarked fish complete

The project is on schedule and on budget with no delays expected. The scope of the project remains unchanged from the initial proposal. Preliminary analysis will not occur until escapement sampling results are available in 2026.

MSF-23-05: Mass marking of hatchery produced Conuma River and Gold River Chinook salmon and development of a complementary reference fishery in PFMA 25 (Nootka Sound and Esperanza Inlet), Fisheries and Oceans Canada

This project began on April 1, 2024, and is active until February 1, 2027. Total funding is $878,136 CAD. The initial proposal was to 100% mass mark, via adipose clip, the entire production of Chinook from the Conuma (up to three million) and Burman (up to three hundred thousand) Rivers. After the proposal was submitted, an evaluation of the contribution of strays in the escapement into the Burman River increased our concern regarding the trajectory and rate of loss of native Burman ancestry. It was determined and agreed to by both the principal investigator and the Committee that a shift from mass marking the Burman stock to the Gold River Stock (near the Burman) was a prudent modification to the program. This pivot in the approach to the Burman stock will help to prevent complete loss of native population genetics. The revised plan was to attempt to mark 100% of the Conuma (~540 thousand), Gold and Robertson Creek Chinook which are the populations that comprise 98% of Burman stray-ins (2012-2022). In the future, this will allow for the near 100% exclusion of strays in our brood collection for Burman stock in future years while supporting a higher contribution of mass marked Chinook returns to Area 25.

The project is currently in year two of three. The Chinook reference fishery was initiated in 2024, and sampling to date has occurred in July and August in 2024 and 2025. The reference fishery methods emulated typical recreational fishing trips targeting Chinook salmon. Professional fishing guides were contracted to maximize catch per unit effort, and all fish caught during the reference fishery were released, with only Chinook brought on board for biological sampling prior to release. Sampling occurred during 42 boat days in 2024, and 53 boat days in 2025.

The Chinook reference fishery is currently on schedule with one field season remaining to be complete in 2026. Stock identification results from 2024 have been finalized and presented internally to DFO staff

and at external meetings with various stakeholders. For 2025, only mark rates and legal rates have been reported so far, as stock identification results are still pending. The 2026 field season is planned to proceed at the same capacity as in 2024 and 2025. Further analysis, including comparisons between DFO's catch monitoring (creel) data and reference fishery data, is either ongoing or pending stock ID results. The project is on schedule and within budget as it moves into the 2026 sampling season.

MSF-24-01: Assessment of post-release mortality in the recreational fishery: updating previous work and quantifying the use of best practices, University of British Columbia

This project began on July 2, 2025, and runs until June 30, 2026. Total funding is $77,469 CAD. The goal of this project is to estimate the survival of Chinook salmon captured and released in the recreational fishery while deploying best practices. In 2025, 56 acoustic tags were successfully deployed on Chinook salmon during the field work in Sooke, BC.

This project is on schedule and budget, with no expected delays. The scope of the project has not changed, and the next task will be to analyze the data and write the final report once data is available. The goal after completing the final report is to submit the final report to a scientific journal for publication.

MSF-24-04: Maintaining a Canadian "Node" in the DIT Network Recommended by the CYER WG: Double Index Tagging and Escapement Recovery of Big Qualicum Chinook as an Audit of the CYER Analytical Methods being Implemented by the CTC, Fisheries and Oceans Canada

This project is scheduled to begin April 1, 2027, and runs until March 31, 2030. Total funding is $176,986 CAD.

MSF-25-03: Addressing Mass Marking Challenges in Chinook PST Indicator CWT Sampling Through Robertson Infrastructure Modifications, Fisheries and Oceans Canada

This project began on November 1, 2025, and runs until December 31, 2026. Total funding is $255,000 CAD. No progress report required as the project is in initial stages.

MSF-25-04: Estimating Chinook salmon post-release mortality in British Columbia recreational fisheries - Year 2, Fisheries and Oceans Canada

This project began on November 1, 2025, and runs until March 31, 2027. Total funding is $112,037 CAD. No progress report required as the project is in initial stages.

MSF-25-05: Replacement of Aging Manual Marking Trailer for Mass Marking at Conuma Hatchery, Fisheries and Oceans Canada

This project began on November 1, 2025, and runs until July 31, 2026. Total funding is $175,000 CAD. No progress report required as the project is in initial stages.

MSF-25-06: Mass marking of hatchery produced Conuma River and Gold River Chinook salmon, Fisheries and Oceans Canada

This project began on November 1, 2025, and runs until July 31, 2026. Total funding is $376,800 CAD. No progress report required as the project is in initial stages.

MSF-25-09: Using hydroacoustic monitoring to support in-season abundance assessments, estimate in-season exploitation rates, and ground-truth a Mark-Selective Fishery algorithm for Skagit River Spring and Summer/Fall Chinook, Washington Department of Fish & Wildlife

This project is scheduled to begin January 1, 2026, and runs until December 31, 2027. Total funding is $147,161 USD.

MSF-25-10: Coded Wire Tag Recovery Electronic Sampling Equipment for Treaty Tribes of Western Washington, Northwest Indian Fisheries Commission

This project began on November 1, 2025, and runs until June 30, 2026. Total funding is a minimum of $149,650 USD to a maximum of $229,650 USD (pending any residual funds in the MSF Fund account from interest or underspent projects). No progress report required as the project is in initial stages.

MSF-25-11: Phase 3 of Populating a Coastwide Salmon Fishing Regulations Database, Pacific States Marine Fisheries Commission

This project began on December 3, 2025, and runs until June 30, 2027. Total funding is $276,588 USD. No progress report required as the project is in initial stages.

MSF-25-12: WDFW Columbia River Emerging Commercial Fishery Sampling, Washington Department of Fish & Wildlife

This project is scheduled to begin January 1, 2026, and runs until December 31, 2026. Total funding is $131,962 USD.

MSF-25-14: Increasing the sampling capacity in a mark selective tangle net fishery for spring Chinook in the Nooksack River, Lummi Indian Business Council

This project is scheduled to begin March 1, 2026, and runs until December 31, 2026. Total funding is $79,062 USD.

Mark Selective Fishery Fund (MSF-03-22)
Project Final Report

Project Title:	Mass marking of Hatchery Produced San Juan Chinook Salmon
Period covered:	March 1, 2023 to January 31, 2026
Name of Organization / Affiliation:	Lead: Pacheedaht First Nation Support: Fisheries and Oceans Canada (DFO)
Principal Investigator / Project Lead:	Lead: Helen Jones Support: Katie Davidson, Pieter Van Will, Erin Rechisky

Mass marking of San Juan chinook at 4 Mile Hatchery in April 2025. The marking crew included staff from 4 Mile Hatchery, DFO, Pacheedaht First Nation, and volunteers.

1 INTRODUCTION

San Juan chinook salmon have been enhanced by the 4 Mile Hatchery in Port Renfrew, BC since 1979. However, the practice of adipose clipping (marking) juveniles to permit visual detection of hatchery fish among returning adults has only averaged 8.5% over the history of the enhancement program and has frequently been 0%, including as recently as 2018–2020. In the 2022 release year (2021 brood year), the Pacheedaht First Nation funded the marking of 43,234 sea pen releases, representing a 100% mark rate on sea pen releases and an 8.6% mark rate on the overall hatchery chinook production.

In March 2023 the Pacheedaht First Nation (PFN) was awarded three years of funding from the Mark Selective Fishery Fund (MSF fund) to continue adipose clipping (marking) San Juan chinook raised at the 4 Mile Hatchery spanning release years 2023, 2024, and 2025 (brood years 2022, 2023, and 2024, respectively). The objectives of the 3-year project were to:

1. Increase the mark rate of San Juan chinook salmon in the Strait of Juan de Fuca and Southwest Vancouver Island (SWVI).
2. Increase the Proportion of Natural Influence (PNI) of chinook returning to the San Juan River through selective harvest of marked chinook in terminal fisheries.
3. Establish viable and sustainable terminal mark selective fishery (MSF) opportunities on San Juan chinook in the future.
4. Enable the use of predominantly natural-origin broodstock for hatchery production while ensuring adequate levels of natural-origin spawners on the spawning grounds (through monitoring of PNI).

This project was part of a broader initiative between Pacheedaht First Nation and DFO to rebuild San Juan chinook stocks through restoration of river and estuarine habitats, improving hatchery enhancement strategies, better genetic management (using PNI), and reducing fishery impacts. PFN has made and will continue to make extensive investment in salmon stewardship initiatives including habitat restoration, research, adult and juvenile salmon monitoring (including fisheries), brood stock collection, and a collaborative focus on responsible hatchery enhancement with DFO. Mass marking and mark selective fisheries are seen as a key component of rebuilding San Juan chinook.

This report summarizes all three years of MSF Fund Project MSF-03-022. Within this report, the term “mark” refers to the process of clipping adipose fins, while “tagging” refers to application of coded-wire tags (CWTs). 4 Mile Hatchery also applies thermal otolith marks to juvenile during rearing and collects fin clips from adult broodstock for genetic parental-based tagging (PBT) – these will be explicitly identified when discussed. In addition, where percent hatchery origin are presented for broodstock numbers, these include strays from other hatcheries.

2 METHODS

Brood Collection

The 4 Mile Hatchery maintains a fence across the lower San Juan River during chinook migration to ensure adequate broodstock and to enumerate salmon through the fence. High flows often necessitate removal of the fence partway through the migration period. Broodstock are collected by seining in the river downstream of the fence during September, sometimes extending into October. The target number of broodstock is around 320 adults, generally with a split of about 40% female to 60% male. The captured fish are counted, sexed, examined for an adipose clip, and if adipose clipped, checked for the presence of a coded wire tag (CWT). Any chinook released receive an operculum punch for DNA analysis and to identify the fish as already counted should it be captured again. Adults retained for broodstock are held in a netpen enclosures on the river to ripen. Egg takes occur on the river and are taken back to the hatchery in buckets. Otoliths are then removed from the spent carcasses to check for thermal marks, scales are collected to determine the age of the fish, and fin clips are taken for DNA analysis and parental brood tagging (PBT). Results from these analyses can be used to determine proportion hatchery origin brood (pHOB) and proportion natural origin brood (pNOB) which are part of the overall PNI equation.

Marking and Release

Adipose fin clipping (marking) and insertion of coded wire tags (CWTs) was performed at 4 Mile Hatchery by a crew of 7 to 13 people daily, staffed by Pacheedaht, DFO, 4 Mile Hatchery, and Rockfish Services (CWT consultant). Marked and CWT tagged fish were held in tanks to recover and check for mortalities and tag loss. CWTs were applied to the 2022 and 2023 brood years but not the 2024 brood year.

4 Mile Hatchery gets its water for incubation and juvenile rearing by gravity-feed from the adjacent Four Mile Creek. This creek can dry up in late spring in drought years. An onsite well provides backup water, however, running the generator to pump water from the well is costly. For these reasons, juveniles have traditionally been transferred to net pens in Fairy Lake to complete their rearing and attain smolt size. Release of the fish is achieved by opening the net pens and releasing the fish directly into Fairy Lake, or if temperatures in the Lake are a concern, the net pens are towed to Fairy Lake's confluence with the San Juan River and fish are released into the confluence.

Variations on the above rearing and release methods occurred in 2023, 2024, and 2025 release years. In 2023, roughly half of the marked hatchery juveniles were transferred to sea pens in Mill Bay, Port San Juan (PFMA 20-2) for continued rearing and subsequent release. The other half were released into the San Juan-Gordon estuary. In 2024, roughly 1/3 of the marked chinook were reared and released from the seapens, 1/3 released in the upper river, and 1/3 reared and released in the Fairy Lake pens. In 2025, both the Fairy Lake and the Mill Bay netpen rearing and release were not used, and all juveniles were released in the upper San Juan River. Rationale for changes in the release strategy are discussed in the Results. Figure 1 provides a map showing the location of the 4 Mile Hatchery, and of the release sites described above.

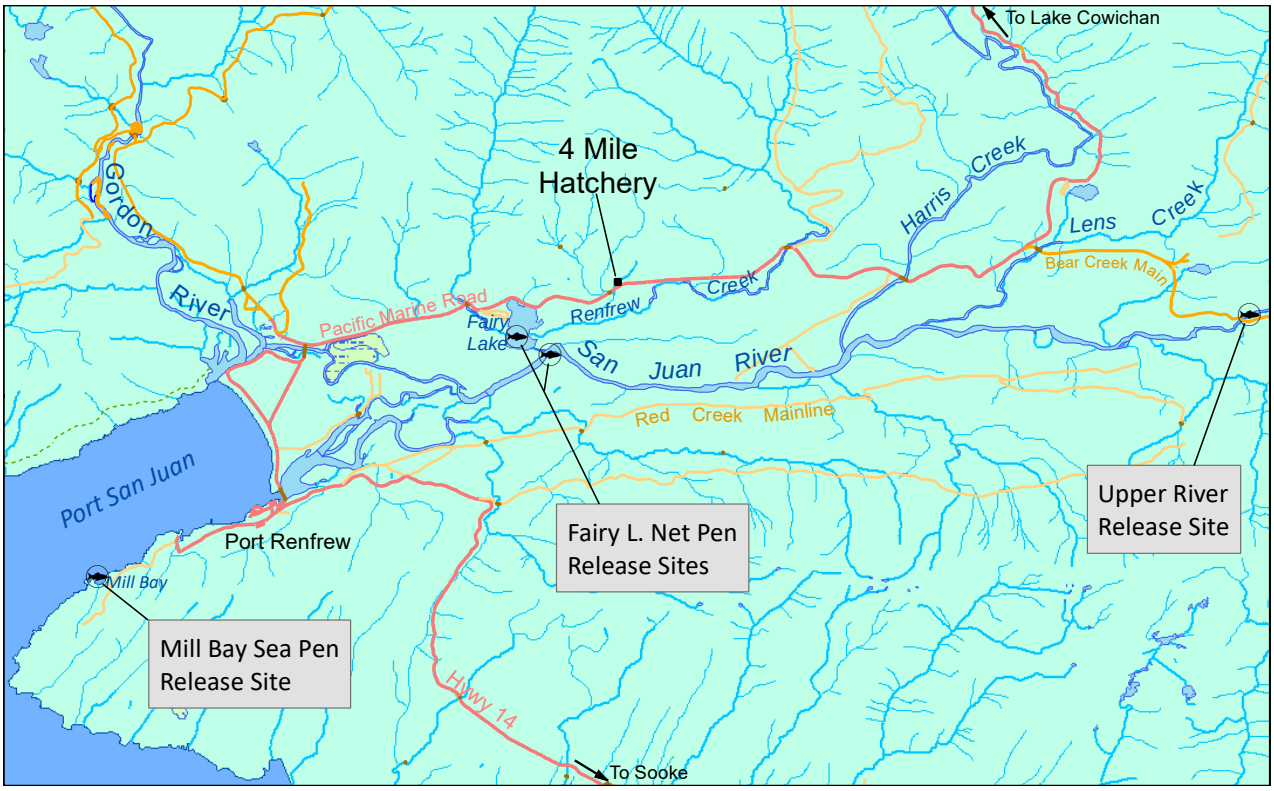

Figure 1. Map of the project area showing location of the 4 Mile Hatchery, and the Mill Bay, Fairy Lake, and upper river hatchery release sites.

3 RESULTS

3.1 YEAR 1 (2022 BROOD YEAR/2023 RELEASE YEAR)

Collection of the 2022 broodstock occurred in September with 165 females and 242 males collected (407 fish total), however, excessively high water temperatures in the river resulted in 37 females and 49 males dying before they could be spawned. This left 128 females and 193 males (321 fish) for hatchery production. The absence of an adipose fin could not be used to identify hatchery adults among the broodstock as adipose clipping was not conducted during the 2018–2020 release years. However, analysis of otolith thermal marks and parental brood tags (PBTs) from the broodstock indicated 70% were of hatchery origin (DFO 2026, Unpublished data).

Marking and CWT tagging of the resultant progeny was undertaken at 4 Mile Hatchery from May 15–26, 2023. This was later than expected due to slower growth associated with low water temperatures and a delay in CWT machine availability. A total of 83,067 fish were adipose clipped (marked) and CWT tagged, and 395,157 remained unmarked and untagged.

There were three rearing/release groups for the 2022 brood: the marked chinook were split into two groups with 41,463 transported to the seapen at Mill Bay in Port San Juan (PFMA 20-2) for further rearing, and the remaining 41,604 released in the San Juan-Gordon estuary on May 25. The plan had been to release this second group of marked fish in the lower San Juan River rather than the estuary; however, access issues associated with low water combined with steep banks prevented a lower river

release. The third group consisted of 395,157 unmarked and untagged chinook, which were reared in the Fairy Lake net pens and released into the lake on June 7, 2023. The sea pen group in Mill Bay was released on June 12. The total release in 2023 was 478,224 smolts, with an overall mark rate of 17.4%.

Release Summary:

- Estuary release: 41,604 marked (100%), 41,604 CWT tagged (100%), released May 25
- Lake pen release: 395,157 unmarked and untagged, released June 7
- Combined estuary + lake pen: total release 436,761, 41,604 marked (9.5%), 41,604 CWT (9.5%)
- Seapen release: 41,463 marked (100%), 41,463 CWT (100%), released June 12
- Total release: 478,224, marked 83,067 (17.4%), CWT 83,067 (17.4%), total unmarked 395,157 (82.6%)

3.2 Year 2 (2023 Brood Year/2024 Release Year)

Broodstock collection in 2023 occurred throughout September and resulted in the collection of 155 females and 211 males (less one male prespawn mortality) giving 365 chinook for hatchery production. None of the collected fish were adipose clipped which was as expected for the same reason as the 2022 brood (adipose clipping was not conducted during 2018–2020 release years). Parental brood tag (PBT) analysis on fin clips indicated that 73% of the 2023 broodstock were of hatchery origin (DFO 2026, Unpublished data).

Progeny from the 2023 broodstock were split into three release groups: the traditional lower river Fairy Lake net pen release, the Port San Juan sea pen release, and a new pilot upper San Juan River release. The intent of the latter was to encourage returning hatchery chinook to home to the upper river where gravel quality is superior to that in the lower river. This was motivated by observations of a high percentage of chinook spawning in the lower San Juan River combined with a recent incubation survival study by a UBC grad student which found zero percent survival in egg boxes placed in spawning gravels in the lower river due to a combination of heavy sand infiltration and substrate scour.

Adipose clipping and CWT tagging of the 2023 brood was undertaken at 4 Mile Hatchery from April 22-23 for the upper river release group, and from May 5–14 for the remaining releases. A total of 122,433 fish were adipose clipped, while 75,690 were CWT tagged, and 440,000 were unmarked and untagged.

The upper river release group occurred on April 29, 2024 and consisted of 42,560 pre-smolts, all adipose clipped (100% mark rate) but not CWT tagged (0% tag rate). These fish were released in the San Juan River just upstream of the Bear Creek Main bridge crossing, 18 km from the Fairy Lake confluence. The Fairy Lake net pen group was released on May 26 and consisted of 40,300 marked smolts and 440,000 unmarked smolts giving an 8.4% mark rate for this release group. CWT tag rate on the Lake pen group after tag loss and tag mortalities was 7.2%. Releases from the seapen in Port San Juan occurred on June 7 and consisted of 39,573 smolts, all adipose clipped (100% mark rate) with a CWT tag rate of 96.2%. The total release in 2024 was 562,433 chinook of which 21.8% were marked and 13.5% were CWT'd.

Release Summary:

- Upper river: 42,560 marked (100%), 0 CWT (0%)
- Lake pen: total release 480,300, 40,300 marked (8.4%), 37,639 CWT (7.2 %), 440,000 unmarked/ untagged (91.6%)
- Sea pen: 39,573 marked (100%), 38,051 CWT (96.2%)
- Total release: 562,433, marked 122,433 (21.8%), CWT 75,690 (13.5%), unmarked/untagged 440,000 (78.2%)

3.3 Year 3 (2024 Brood Year/2025 Release Year)

Broodstock collection in 2024 occurred throughout September and early October and resulted in the collection of 149 females and 201 males (less 2 male prespawn culls/mortalities) giving 348 adult chinook for hatchery production. This was the first year when adipose clipped chinook were expected in the returns (as Jacks) and accordingly, 3 marked Jacks were encountered and released during broodstock collection. Parental brood tag analysis on fins clips from the collected fish indicated that 75% of the 2024 broodstock were of hatchery origin (DFO 2026, Unpublished data).

The goal in Year 3 was to mark all juvenile chinook raised at the 4 Mile Hatchery and release all fish in the upper river. The sea pen rearing and release was discontinued due to the cost of the program, its high labour demands, and concerns over the high rate of straying among sea pen adults. The traditional Fairy Lake net pen rearing and release was also discontinued in favour of the upper river release strategy. As in Year 2, the intent was to imprint released fish on the upper river to encourage adults to home back to this area. This was motivated by the UBC graduate student study, now with 2 years of data showing zero percent survival for egg boxes placed in spawning gravels in the lower river.

Adipose clipping of the 2024 brood was undertaken at 4 Mile Hatchery from April 7–29 and all fish were clipped achieving a 100% mark rate on 455,000 fish. CWTs were not applied in 2025 so that the crew could focus on marking all the releases.

Releases were made in the upper river just upstream of the Bear Creek Main bridge crossing and occurred in six groups between April 27 and May 11, 2025. Dates and numbers released per group are given in Table 1.

Table 1. Release dates, number of trips to the release site, and total number released per date for San Juan chinook raised at the 4 Mile Hatchery.

Release Date (Group)	Number of Trips to Release Site	Number Released
April 27	2 trips	80,000
April 28	3 trips	120,000
April 30	1 trip	40,000
May 9	2 trips	60,000
May 10	3 trips	120,000
May 11	1 trip	35,000
Total	12 trips	455,000

3.4 ALL YEARS COMBINED

This project provided three years of funding beginning with brood year 2022/release year 2023 and ending with brood year 2024/release year 2025. The goal was to increase the mark rate with each project year as hatchery infrastructure and staff capacity allowed. In Year 1, 87,365 hatchery chinook were marked and split between a seapen release and an estuary release. The overall mark rate was 18.3%. In Year 2, 122,566 chinook were marked and split between seapen, Fairy Lake, and upper river releases. The overall mark rate was 21.8%. In Year 3, all fish were marked and all released in the upper river (100% mark rate). Table 2 summarizes release results and associated mark and CWT rates for all three years.

Table 2. Mark and tag rates for Years 1, 2, and 3 of the San Juan chinook marking program, MSF-03-22.

PSC MSFF Project Year	Fiscal Year	Brood Year (Release Year)	Release Group	Ad-clip by Release Group (rate)	CWT by Release Group (rate*)	Total BY Release (ad-clip rate)
Year 1	2023-2024	2022 (2023)	Seapen	41,463 (100%)	41,463 (100%)	478,224 (17.4%)
			Lake/estuary	41,604 (9.5%)	41,604 (9.5%)	
Year 2	2024-2025	2023 (2024)	Seapen	39,573 (100%)	38,051 (96.2%)	562,433 21.8%
			Lake/lower river	40,300 (8.4%)	37,639 (7.2%)	
			Upper river	42,560 (100%)	0 (0%)	
Year 3	2025-2026	2024 (2025)	Upper river	455,000 (100%)	0 (0%)	455,000 (100%)

** CWT rates take into account tag loss and tagging mortalities.*

The 2025 broodstock have been collected and spawned successfully (341 fish consisting of 155 females and 186 males). The goal is to continue marking all hatchery chinook in 2026 as was done in Year 3.

4 DISCUSSION

4.1 CHALLENGES AND RESOLUTIONS

The 3-year program was completed as planned, but there were challenges associated with hatchery infrastructure and capacity. Four Mile Hatchery's primarily water source is surface water from an adjacent creek; however, this creek dries up in dry years (such as 2022 and 2023). There is a backup well for when this occurs but running the well's generator on a continuous basis is costly. This can be an issue when chinook fry are reared onsite awaiting sufficient size to allow for adipose clipping (~ 2 g). Recent upgrades to hatchery infrastructure are expected to help with water availability. These include a new water distribution system to increase head pressure, and hydro cyclones to remove sediments from the water supply (Heather Wright, Community Advisor, DFO, pers. comm.).

The strategy to release hatchery fish into the upper San Juan River initiated in spring 2024 had river access issues. This was alleviated with emergency funding from DFO and PFN resulting in the creation of an access point just upstream of the upper San Juan River bridge crossing (Bear Creek Main bridge). This access point was used in 2024 and again in 2025.

The availability of CWT machines was a challenge in Year 2. To alleviate this in Year 3, DFO submitted requests to DFO Science to omit CWT tagging on the 2023 and 2024 brood. These were approved which allowed the crew to mark fish in the absence of CWTs and achieve the 100% marking target on 2025 the releases.

4.2 NEXT STEPS

The plan going forward is to continue with the 100% marking rate on San Juan chinook (external funding permitting) combined with the upper river release strategy. Our hypotheses are that this release strategy will 1) increase the proportion of adults homing to the upper river, which will 2) improve egg-to-fry survival for naturally spawned chinook eggs, which in turn will 3) result in greater number of naturally spawned chinook progeny migrating from the river.

Ongoing monitoring programs to assess the success of this release strategy include:

- A downstream trapping program (rotary screw trap)— initiated in spring 2023; tracks the outmigrant chinook population in terms of abundance, timing, size distribution, and hatchery (marked) vs. naturally spawned.
- San Juan and Gordon River estuary beach seining program— initiated in 2018; tracks the relative abundance, distribution, and timing of juvenile chinook and other species in the estuaries.
- Adult escapement snorkel surveys— conducted in the upper and lower San Juan River as well as Harris, Lens, and Renfrew Creeks; tracks the abundance and distribution of adult spawners in these systems.
- Dead-pitch program– initiated in 2024 in the San Juan River; PBT analysis of carcass samples allows determination of hatchery vs. natural origin on the spawning grounds which feeds into the San Juan PNI calculation.
- Creel surveys– creel surveyors monitor sport landings at Pacific Gateway and Port Renfrew Marinas; for boats interviewed the surveyor collects data on length, sex, marks (adipose clips), and a sample for DNA analysis to determine stock ID.

Tracking PNI of San Juan chinook will be achieved through continued DNA analysis on broodstock collected for 4 Mile Hatchery and on dead-pitch carcasses initiated in the river in fall 2024. Interestingly, results from the 2024 dead-pitch conducted in the upper San Juan River found that 71% of the carcasses were of natural origin. This is the reverse of the broodstock collected for that year where only 25% were of natural origin. Additional years of sampling will determine whether this is a consistent pattern and whether we see a change in this pattern once upper river releases start to return.

San Juan chinook typically return to the river at 3, 4, or 5 years of age with 3- or 4-year-olds being dominant depending on year. A 100% mark rate was achieved on hatchery chinook for the 2024 brood year. We should start seeing these fish in the returns in 2027 as 3-year-olds, and in 2028 as 4-year-olds. If a 100% mark rate is sustained on hatchery progeny going forward, by 2028 the majority of hatchery returns will be readily detected by a clipped adipose. This will assist broodstock selection (favouring natural origin fish), and enumeration of hatchery versus natural origin fish on the spawning grounds during annual dead-pitch surveys.

The Pacheedaht first Nation undertook a pilot mark-selective fishery in Port San Juan (Area 20-2) in late August-early September 2025 using a purse seine. However, the 7.6 m depth of the net was too shallow to effectively intercept chinook, and access to known holding areas was hindered by vessel traffic. The PFN plans to undertake a limited mark-selective fishery again in fall 2026 exploring alternative gear types.

5 REFERENCES

DFO. 2026, Unpublished data. San Juan chinook PNI. Fisheries and Oceans Canada (DFO), Proportion Natural Influence (PNI) update bulletin for San Juan chinook, 2026-01-15.

Mark Selective Fishery (MSF) Fund
Final Report

Project Title:	MSF Regulations Database – FRIS Query/Export Tool
Period covered:	Nov 1, 2023 to Mar 31, 2025
Name of Organization / Affiliation:	Fisheries & Oceans Canada (DFO)
Principal Investigator / Project Lead:	Greg Hornby – DFO Regional Manager - Recreational Fisheries Greg.hornby@dfo-mpo.gc.ca 250-203-7384 940 Alder Street, Campbell River, BC V9W 2P8

1. Summary/Status of project

This successfully completed project developed a user-friendly query/export tool for DFO's Fishery Regulations Information System (FRIS) so that DFO Biologists/Managers can easily search for and extract current and historic fisheries regulations pertaining to Chinook and Coho salmon mark selective fisheries (MSF) regulations. This enables MSF regulations to more easily be linked with recreational catch estimates and biological samples (e.g. CWT's – Coded Wire Tags). All goals for this project were successfully achieved.

This project supports Canada's ability to contribute to the development of a proposed multi-agency regulation database. Preliminary development work on the multi-agency database has previously been supported through the MSF Fund.

2. Milestones and Timeline

The project has been successfully completed under budget within a slightly extended timeline (no-cost extension to March 31, 2025).

3. Key area of work

Species regulations relating to recreational tidal water fishing in British Columbia are held in the FRIS system. Certain fisheries (Chinook salmon and Coho salmon) are often (but not always) regulated on an MSF basis, allowing different regulations to apply to marked (wild) and unmarked fish (hatchery marked - adipose fins removed)

The key focus of the project is to allow those specific regulations (current and historical) relating to MSF fisheries to be extracted from the FRIS database for further analysis, e.g. against biological samples such as CWTs (Coded Wire Tags) and recreational fishing catch estimates, and for comparison with other MSF

fisheries elsewhere. This also supports the analytical work required for Pacific Salmon Treaty implementation such as the exploitation rate analysis for the Chinook Technical Committee.

All objectives within this project have been met:

- The FRIS system now has a user interface to select for MSF related regulations
- The FRIS system successfully selects and displays the requested MSF related regulations within any other requested parameters (e.g. Species – chinook vs. coho; Seasons – current and/or historical; Region and fishery areas; Dates – regulation Publication/Effective dates and Expiry date etc.)
- The selected MSF regulations can be easily exported to an external csv file for import into other databases for further analytical work (using the FRIS 'Export' feature)

4. Challenges and resolutions

The project required an extended timeline (at no cost) for completion. This was primarily due to some delays in completing contracting paperwork and other required development work on FRIS.

5. Financials

Eligible Expenses:

In-Kind (DFO):

Labour
Wages & Salaries

Position	# of crew	# of work days	hrs per day	rate per hour	BUDGET Total (PSC + In-kind + cash)
Regional Recreational Fishery Manager	1	10	7.5	60	4,500
Recreational Fishery Officer	1	20	7.5	45	6,750
CTC Biologists/Analysts	5	2	7.5	50	3,750
Person Days (# of crew x work days)				sub total	15,000

External Contractor:

Subcontrator & Consultants	Total
Programmer	$ 40,000
Total	**$ 40,000**

DFO Contribution: $15,000

PSC Contribution: $40,000

Project Total: $55,000

Mark Selective Fishery Fund
Project Final Report

Project Title:	Sarita River Chinook Mark Selective Fishery, 2024 - 2025
Period covered:	August 1, 2024 to July 31, 2025
Name of Organization / Affiliation:	Huu-ay-aht First Nations
Principal Investigator / Project Lead:	Christine Gruman / Robert Bocking / Amelia Vos

Contents

Introduction

The Huu-ay-aht First Nations (HFN) have ongoing watershed-scale restoration and salmon rebuilding initiatives aimed at restoring and revitalizing the Sarita, Pachena and Sugsaw watersheds to improve salmon stock viability (https://huuayaht.org/watershed-renewal-project/). This includes upslope, in-river and riparian research and rehabilitation initiatives, extensive upland efforts to curtail impacts from past and present forestry-related activity, improving fish passage, rehabilitating estuary environments, and a collaborative focus on responsible hatchery enhancement with DFO. Together, these efforts have the potential to improve salmon populations. The HFN and its partners has made extensive investment (>$500k per year since 2017).

This project was funded specifically for the mass marking of hatchery produced Sarita River Chinook salmon which had been funded by Huu-ay-aht First Nations since 2017 brood year and sampling of returning adults. This work is part of a joint effort by HFN and DFO to increase returns of Chinook salmon to the Sarita River by improving survivability under optimum rearing strategies at the Nitinat Hatchery (New and Brouwer, 2015), enhancing habitat for natural origin spawners, increasing the proportion natural index (PNI) over time to maintain a viable natural spawning population, and to facilitate mark selective fisheries in terminal areas in the future.

Mass marking of the releases in spring of 2025 consisted of all fish being adipose fin clipped plus a percentage of those being coded wire tagged (CWT). Additionally, all fish are tracked genetically for parental based tagging. In addition to the 100% marking of releases, DFO and HFN staff conducted broodstock collections and escapement enumerations in September and October of 2024 as well as deadpitch and sampling of the HFN Mark Selective Fishery in 2024.

This multi-year marking project is anticipated to make a significant contribution to our understanding of how terminal mark selective fisheries might be implemented and enhanced through collaborative efforts by DFO and a BC First Nation. The results of this research will have applicability to other salmon populations in the Pacific Northwest. The specific project objectives were:

1. Research and evaluate different rearing strategies that will improve survival, size and age at return to fisheries and escapement;
2. Enable the use of predominantly natural origin broodstock for hatchery production;
3. Increase the proportion natural index (PNI) for Chinook returning to the Sarita River from the current level of 0.12 to 0.5 through selective removals of hatchery fish in terminal fisheries (i.e., Huu-ay-aht First Nation Treaty fishery in lower river);
4. Adapt hatchery production goals over time and in step with habitat restoration successes by the HFN Watershed Renewal Program;
5. Enable a viable and sustainable mark selective fishery on Sarita Chinook salmon in the future; and
6. Provide marine survival estimates for Sarita Chinook salmon.

This report covers the Mass Marking of Sarita Chinook Salmon releases from the 2024 Brood Year and biological sample collection from the 2024 brood year collections, terminal fishery, and deadpitch. Previous years' mass marking and escapement sampling results were reported on for PSC MSF-06-21.

Methods

Adult Returns, Anticipated Mark Status and Marking of Hatchery Releases

Hatchery releases of Sarita Chinook Salmon and marking rates are shown in Table 1 for Brood years 2015 through 2024. As Sarita River Chinook salmon return as 2 yr olds (jimmies) to 6 yr olds, spawner returns to Sarita River in 2024 were expected from BY2018 through to BY2022. BY2018, BY2020, BY2021 and BY2022 were 100% marked, and BY2019 was only 39.7% marked (due to COVID restraints). Thanks to continued funding from PSC, brood years 2023 and 2024 have also been 100% marked.

Table 1. Summary of releases and marking for hatchery reared Sarita Chinook for brood years 2015 to 2022 plus natural production estimates from the Rotary Screw Trap.

Brood Year:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Outmigration Year:	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Natural Production	150,000	150,000	77,174	146,553	531,059	308,714	680,892	59,410	580,197	244,045
Hatchery Production:	337,242	385,333	510,458	304,165	489,499	292,674	410,051	440,831	584,435	465,491
Total Production	487,242	535,333	587,632	450,718	1,020,558	601,388	1,090,943	500,241	1,164,632	709,536
Hatchery Mark Status:										
Unmarked	337,242	385,333	309,947	0	295,351	0	0	0	0	0
Ad	0	0	1,018	104,249	95,435	96,957	209,955	232,164	388,724	364,699
Ad & CWT	0	0	199,494	199,916	98,713	195,717	200,096	208,667	192,874	100,792
Marked (Ad & CWT + Ad only)	0	0	200,512	304,165	194,148	292,674	410,051	440,831	584,435	465,491
% Marked	0%	0%	39%	100%	40%	100%	100%	100%	100%	100%

Notes: 1. Experimental hatchery smalls were released in 2019 but not marked due to COVID
2. Natural production for 2015 and 2016 broods is guesstimated, and 2017 brood production is likely underestimated

Adult Escapement, Removals and Sampling

River swims along with the data from the removals provided an AUC estimated escapement in 2024 of 3,461 adult salmon (3,482 including jacks). Again, in 2024, in-river beach seining for adult Chinook Salmon took place to collect broodstock, conduct river counts and collect fish for the HFN Terminal Mark Selective Fishery. Both staff from Nitinat River Hatchery (NRH) and HFN conducted beach seines at Sarita River, working jointly to meet the harvest and broodstock objectives and well as releases. HFN was primarily focused on collecting surplus fish (primarily marked male) for harvest while NRH was focused on collecting fish for broodstock (primarily unmarked males and females). Additionally, any unmarked or marked fish not selected for broodstock, or harvest purposes were released after being counted, sexed and operculum punched. In contrast, to the previous years, drought conditions did not impact access to the upper reaches of Sarita River thereby expanding the number of areas in which broodstock could be collected. Collection efforts were conducted throughout the system (Corner Pool, Cable Car, Hunter Creek and Mine Pool).

Collection efforts occurred on September 4, 5, 11, 18 and 25. However, only broodstock collection was completed on September 25. Sampling details for the HFN fishery, broodstock and releases are noted below in the sampling summary section. HFN also conducted deadpitch sampling on October 4, 8 and 15, 2024 before flooding conditions made this impossible.

The sampling program for the Sarita changed significantly this year. All broodstock were sampled for count by sex, presence of AD clip and CWT and operculum punch. Any fish that were operculum punch were removed from the release data to avoid duplicate counting. No broodstock holding mortalities were sampled unless they were identified as AD/CWT but with no otolith or scale samples taken. Broodstock which were successfully spawned that had an AD clipped were sampled only for the length, DNA and heads (if CWT was detected). Unmarked fish were sampled for length and DNA (all fish) and only every second fish sampled for scales and otoliths.

Similarly, the ***sampling program*** for the HFN ***Terminal Mark Selective*** Fishery (marked fish only) also changed significantly from previous years. Every fish was counted for sex, presence or absence of finclip and presence or absence of CWT for fin clipped fish and operculum punch. However, for those fish with no CWT present, every 6th fish was sampled for length, scales and otoliths. For those fish with a CWT, only heads were sampled. No otoliths or scale samples were collected from these fish.

Fish released back to Sarita were counted, sexed and identified for presence/absence of finclip. Fish were not scanned for the presence or absence of CWT pin. All fish released were given an operculum hole punch to identify as already counted if caught a second time. Operculum punches were collected in bulk (not identified to particular sex or clip) for DNA analysis. If a fish with an operculum punch was caught a second time, they were counted as recaptures by sex and clip. No additional operculum punch was given to avoid duplication of DNA analysis.

Fish collected in deadpitch were counted by sex and clip, and sampled for otoliths, scales (where possible), heads (for those with CWT) and a finclip or heart tissue for DNA testing.

Data Analysis

As noted above, sampling requirements were modified quite significantly from previous years. These changes require a change in reporting format from previous years in order to achieve a complete picture of information. Additionally, a number of different sampling sources must be utilized for each of the stratum. See Table 2.

Table 2. Sampling sources for Different Stratum and Mark Status.

STRATUM	MARK STATUS	AGE	HATCHERY/WILD	RELEASE GROUP
Brood	No Clip	Scales & PBT	Otolith & PBT	Otolith
	AD Only	PBT	PBT	PBT (must be to release group detail)
	AD/CWT	PBT & CWT	PBT & CWT	PBT & CWT
Harvest	No Clip	NA	NA	NA
	AD Only	Scales	Otolith	Otolith
	AD/CWT	CWT	CWT	CWT
Releases	No Clip	NA	PBT	NA
	AD Only	PBT	PBT	PBT
	AD/CWT	PBT	PBT	PBT
Deadpitch	No Clip	Scales	Otolith & PBT	Otolith & PBT
	AD Only	Scales	Otolith & PBT	Otolith & PBT
	AD/CWT	CWT	CWT	CWT

Results

Clipped Status – Broodstock, Harvest, Releases and Deadpitch

Table 3 summarizes the clipped status of the broodstock, harvest, release and deadpitch groups. As expected, the majority of the broodstock collected were not marked (98.3%) while the opposite was true for the harvest component where 100% were identified as being marked. For releases, the majority were unmarked (55.0%). However, due to the inability to clip all the fish released from BY2019 (Covid), the clipped status cannot be used to ascertain the breakdown of hatchery and wild origin fish. To determine the composition of hatchery and wild origin fish, the presence or absence of a thermal mark is required or through PBT analysis.

Table 3. Mark Status of Removals (Broodstock, Harvest, Releases, Deadpitch). Recaps are not included in overall total.

Collection Type	Not Clipped	Clipped	Overall	% Clipped
Brood	350	6	356	1.69%
Harvest	0	608	608	100.0%
Release	217	265	482	55.0%
Recaps	90	97	187	51.9%
Deadpitch	29	35	64	54.7%
Overall Total	**596**	**914**	**1,510**	**60.5%**

Since not all the returning adults would have been marked, due to incomplete marking in 2019, hatchery returns cannot be fully distinguished from natural origin fish by adipose clip status alone. By BY2025, 100% of the hatchery returns across all age groups will be marked.

Broodstock Sampling

Sex and Age Composition

Using the combination of brood stock and HFN removal plus releases the sex ratio was determined to 3.6% jacks, 27.8% females and 68.6% males using first set data.

A total of 172 samples (scales and PBT) were used to determine the age composition of the broodstock. Table 4 below summarizes this information. As expected, very few Age-2 and Age-3 fish were used for broodstock, with Age-4 and Age-5 being fairly equal in representation. The majority of Age-5 fish were female while the opposite was true for the Age-4 fish.

Table 4. Age Classification of Broodstock Collected from Sarita River in 2024.

Age Classification	Female	Male	Jack	Total	%age
Age-2	0	0	1	1	0.58%
Age-3	0	13	0	13	7.56%
Age-4	35	43	0	78	45.35%
Age-5	66	14	0	80	46.51%
Total	**101**	**70**	**1**	**172**	

Fish Origin

All fish used for broodstock were sampled for DNA. Using parental base tagging, all fish can be identified as hatchery or wild along with stock of origin. A total of 272 samples were collected and analyzed. At total of 91 samples were identified as hatchery origin (33.46%) but only 77 of these were identified as originating from Sarita stock (84.62%) (Table 5). The other 14 hatchery origin stock were identified as Nitinat (12), San Juan (1), and Thornton (1) strays (Total = 15.38% strays). The remaining 181 samples were identified as natural origin (66.54%).

Table 5. Fish Origin for Broodstock Collected from Sarita River.

Fish Origin	Female	Male	Jack	Total	%age
Natural Origin	**88**	**91**	**2**	**181**	**66.54%**
Hatchery Origin	**65**	**25**	**1**	**91**	**33.46%**
Sarita	*62*	*14*	*1*	*77*	*84.62%*
Nitinat	*2*	*10*	*0*	*12*	*13.19%*
San Juan	*1*	*0*	*0*	*1*	*1.10%*
Thornton	*0*	*1*	*0*	*1*	*1.10%*

Terminal Fishery

A total of 608 fish (all clipped were harvested) during the broodstock capture. Of the 608 fish harvested, 400 fish were identified in the field as having a CWT and the remainder were AD only clipped (208). Of the 400 fish identified in the field as having a CWT only 361 fish were analyzed. Of the 361 fish analyzed all but 13 fish had a tag recovered. All fish harvested were males or jacks.

Sex and Age Composition

Age composition for the harvested fish is from scales (AD only (40 samples)) and from CWT (AD/CWT (361 fish)). The majority of fish harvested were male and from the Age-4 class (BY2020) (Table 6).

Table 6. Age Classification of Harvested Fish from Sarita River in 2024.

Age Classification	Male	Jack	Total	%age
Age-2	0	21	21	5.44%
Age-3	79	0	79	20.47%
Age-4	280	0	280	72.54%
Age-5	6	0	6	1.55%
Total	**365**	**21**	**386**	

Fish Origin

As all harvested fish were fin clipped, 100% of the fish were from hatchery-origin fish. No natural origin fish were harvested. Using otoliths (AD only) and CWT information, Table 7 summarizes the allocation of harvested fish to the different release strategies. Both release strategies were equally represented in the harvested stratum.

Table 7. Release Strategy Allocation from Hatchery Fish Harvested in Sarita River (2024).

Rearing Group	Female	Male	Jack	Total	%age
Traditional Large	0	141	16	157	50.00%
Enriched Small	0	152	1	153	48.73%
Not Marked	0	2	0	2	0.64%
Non Sarita	0	2	0	2	0.64%
Total	**0**	**297**	**17**	**314**	

Acoustic Telemetry-Derived Estimates of Chinook Salmon Post-Release Mortality - Year 1 Report

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Executive Summary

In 2024, Fisheries and Oceans Canada (DFO) Ecosystem Science Division and South Coast Stock Assessment (SCAS) began a pilot acoustic telemetry study in eastern Juan de Fuca Strait to quantify landing and post-release mortality rates of legal-sized (¿62 cm) Chinook salmon released from recreational fisheries. In 2025 the study was repeated with a larger sample size, funded in part by the Pacific Salmon Commission's Mark Selective Fishery Fund. In 2025 DFO also began a collaborative study with the University of British Columbia (UBC) to develop a hierarchical modelling framework to estimate spatial and temporal variability in post-release mortality rates, as well as to identify key ecological and capture-related drivers influencing survival. The model will ultimately leverage acoustic telemetry data from UBC studies conducted in the Discovery Islands (2020-2022), Barkley Sound (2021-2022), and western Juan de Fuca Strait (2025), as well as the 2024-2025 DFO studies.

The following report summarizes project objectives completed to date that were funded by the Pacific Salmon Commission's Mark Selective Fishery Fund, as well as relevant information from the 2024 DFO pilot study. Since acoustic telemetry data from 2025 will not be available until early 2026 (when receivers are recovered) and model development continues, we do not present final model results here.

We deployed 53 (2024) and 49 (2025) acoustic receivers between the west coast of Vancouver Island and the southern Strait of Georgia, augmenting extensive arrays deployed by collaborators throughout coastal Washington, Juan de Fuca Strait, the northern Strait of Georgia, Puget Sound, and the Fraser River. We collected biological data from and tagged 50 Chinook salmon in 2024 and 102 in 2025. All fish were tagged aboard vessels participating in the DFO SCAS Reference Fishery program in Pacific Fishery Management Subareas 20-5 (Becher Bay), 19-3 (Parry Bay and Constance Bank), or 19-4 (Oak Bay Flats). Approximately 75% of tagged fish originated from South Puget Sound populations, with smaller contributions from North Puget Sound, Lower Columbia River, and Fraser River populations. The majority of tagged fish were adipose clipped ($\sim$ 60%).

Landing mortalities (i.e., fish that were landed dead) were extremely rare in the 2024 Reference Fishery–nine of 3668 landed fish ($<$ 0.01%) and the majority of pre-release mortalities were sublegal sized fish (77%). All tagged fish were detected on at least one marine acoustic receiver and the majority were detected for at least 30 days post-release. We fit a state-space Cormack-Jolly-Seber mark-recapture model to detections data from the 2024 pilot study to estimate post-release survival rates while accounting for imperfect detection probability and successful migrations (i.e., fish that reached terminal areas). Estimated median cumulative survival rates up to 30 days post-release were greater than 95%. We did not include additional covariates within the model because variability in survival was low. However, we have begun development and testing of a hierarchical model that will be fit to the full suite of

DFO and UBC tagging data. We present an overview of the model framework, which accounts for interacting effects among fishery practices (e.g., hook size, air exposure), injuries (e.g., scale loss, eye wounds), and ecological traits (e.g., body size, maturation stage) to understand the mechanistic drivers of variability in survival.

1 Introduction

Recreational Chinook salmon *Oncorhynchus tshawytscha* fisheries in British Columbia are increasingly non-retention or mark-selective. As the proportion of fish that are captured and subsequently released increases, the impacts of fisheries related incidental mortality (FRIM) relative to landed harvest will also increase. FRIM-which encompasses fishery mediated impacts to survival prior to landing (capture mortality and drop-off mortality), during handling, and after release—is explicitly incorporated into PSC Chinook Technical Committee stock assessment models used to estimate harvest impacts. However, current FRIM estimates are largely derived from short-term (i.e., 0.5-3 day (Cox-Rogers et al. 1999)) captive holding studies which do not reflect true natural mortality drivers present in the wild or provide information on post-release mortality over longer periods.

Recent studies by the Salmon Conservation and Ecology Laboratory have provided revised estimates of post-release mortality and quantified the relative impact of various angling strategies, as well as ecological covariates such as body size, on Chinook and coho salmon *O. kisutch* survival rates (Hinch et al. 2024, Lunzmann-Cooke et al. 2024). Tagging studies occurred in the Discovery Islands and Barkley Sound (Chinook salmon), as well as western Juan de Fuca Strait (coho salmon). Broadly, these analyses have found evidence that Chinook salmon post-release mortality rates are often low; however they can be as high as 40% in the presence of injuries, such as eye damage associated with hooking. Additionally holding studies suggest mortality

is higher for fish smaller than ~ 60 cm, approximately the legal size limit for retention in recreational fisheries in Juan de Fuca Strait and the Strait of Georgia (Hinch et al. 2024).

The objectives of the DFO-led acoustic telemetry program funded by the PSC Mark Selective Fishery (MSF) fund were two-fold. First, we expanded estimates of landing and post-release mortality by conducting additional sampling and tagging in eastern Juan de Fuca Strait–a region not considered in previous studies, but that is the location of ongoing mark selective fisheries (Rechisky et al. 2024, 2025). The PSC MSF fund supported field work in 2025, which supplemented a DFO funded pilot program in 2024. Second, we began a collaborative research program with UBC to develop a hierarchical modelling framework that would synthesize data from UBC (previous Discovery Island and Barkley Sound deployments, as well as western Juan de Fuca Strait deployments in 2025) and DFO (eastern Juan de Fuca Strait, 2024-25) tagging programs. The model aims to extend previous analyses using a Bayesian state-space model to estimate post-release survival while accounting for imperfect detection probability, particularly in terminal areas. Additionally the model includes multiple nested submodels, which allows for indirect causal effects to be estimated, confounding variables to be appropriately controlled for, and uncertainty to be fully propagated to survival rate estimates.

2 Methods

2.1 Biological Sampling and Tag Deployments

From April to June in 2024 and 2025, we sampled and tagged Chinook salmon aboard reference fishery vessels in DFO Pacific Fishery Management Areas 19 (south of Victoria) and 20 (Becher Bay) (Figure 1). We captured fish using recreational trolling gear fit with a restricted range of hook sizes (3 ought or smaller, single, barbless).

With the exception of one fish with a significant PIT-tag related bleed in 2024, we tagged all fish that were over 60 cm, regardless of injury scores. We tagged all fish with coded acoustic transmitters (Innovasea Inc.; model V13P; 39 mm length, 5.5 g weight in water, approximately 400 days battery life; mean 120-second delay between transmissions at 69 kHz). We used a knotless mesh landing net or, in a small number of cases, lifted Chinook salmon aboard via hook and line. We then transferred all fish to a tagging sling with flow-through seawater. We measured each fish for fork length and girth to the nearest cm using a measuring tape and collected scale samples and adipose or caudal fin clips for genetic stock identification using single nucleotide polymorphisms (Beacham et al. 2022). We quantified pre-existing and capture-related injuries, scale loss, fin damage, eye injuries, and gill condition. Consistent with recent post-release mortality studies, we scored all injuries from zero (no damage) to three (severe damage) (Lunzmann-Cooke et al. 2024). We recorded energy density using a Distell Model 692 Fish Fatmeter and estimated whole-body lipid content from Fatmeter readings using a Chinook salmon-specific relationship (Lerner and Hunt 2023). We mounted acoustic transmitters to the fish externally via a Floy spaghetti tag fixed through the dorsal musculature, and tagged all fish captured in 2024 with a Biomark APT12 FDX-B PIT-tag injected into the stomach cavity. In an effort to minimize handling stress and fish injury, we affixed all PIT-tags in 2025 to the Floy tag with heat shrink tubing. We released fish over the side of vessel immediately following tagging in their approximate location of capture.

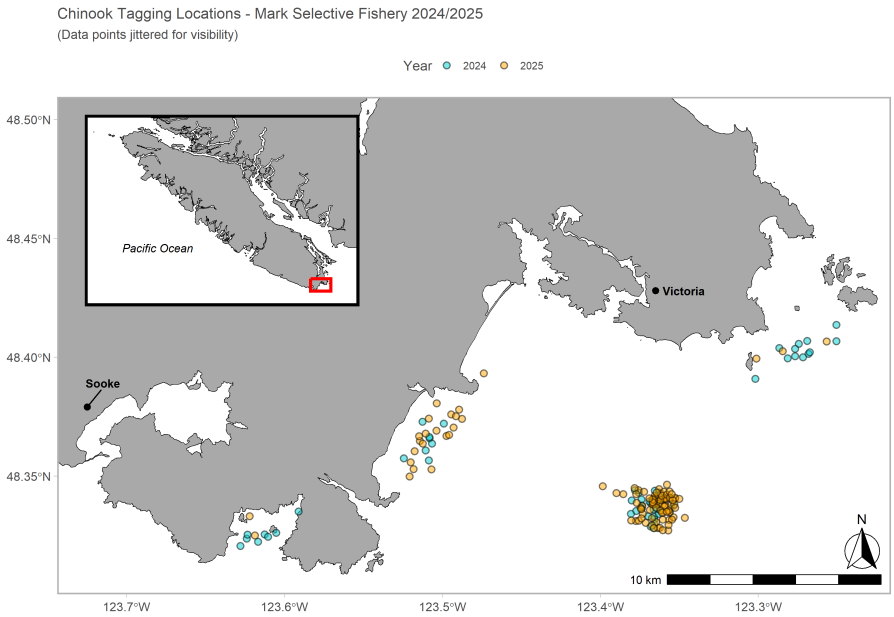

Figure 1: Acoustic tagging locations for Chinook salmon captured between April and June (2024 and 2025). Tagging took place in Pacific Fisheries Management Areas 19 (South of Victoria) and 20 (Becher Bay). Turquoise points represent 2024 tagging locations, while yellow points represent 2025 tagging locations. Points have been jittered for display purposes.

We grouped genetic stock assignments at a coarser, stock aggregate level by summing collection unit assignment probabilities, within an individual, to a given aggregate. Each aggregate represented a dominant life history or spawning geography among the sampled fish and included Fraser Yearling (i.e., Spring 4_2, Spring 5_2, or Summer 5_2 stock management units), Fraser River Fall, North Puget Sound, Sound Puget Sound, and Lower Columbia River stock aggregates. The North Puget Sound stock aggregate included populations returning to the Nooksack, Skagit, and Stillaguamish rivers, while South Puget Sound included all other rivers in the basin including those in Hood Canal. The Lower Columbia River stock aggregate included individuals that do not migrate past Bonneville Dam and are primarily fall-run, subyearling populations. For simplicity's sake we refer to these aggregates as stocks throughout the report. The summed, stock aggregate-level assignment probabilities for all individuals exceeded 80%.

2.2 Receiver Arrays

We detected tagged fish on Innovasea acoustic receivers (VR2, VR3, and VR4 model families). Receiver arrays were deployed throughout the study area by DFO (Figures 2, 3), but we also leveraged existing arrays managed by a diverse network of academic and non-governmental research groups, as well as USA state and federal agencies (Figure 2). Array configurations varied between years. All receivers were deployed prior to the tagging period and remained deployed until at least late October (i.e., after mature fish had entered freshwater).

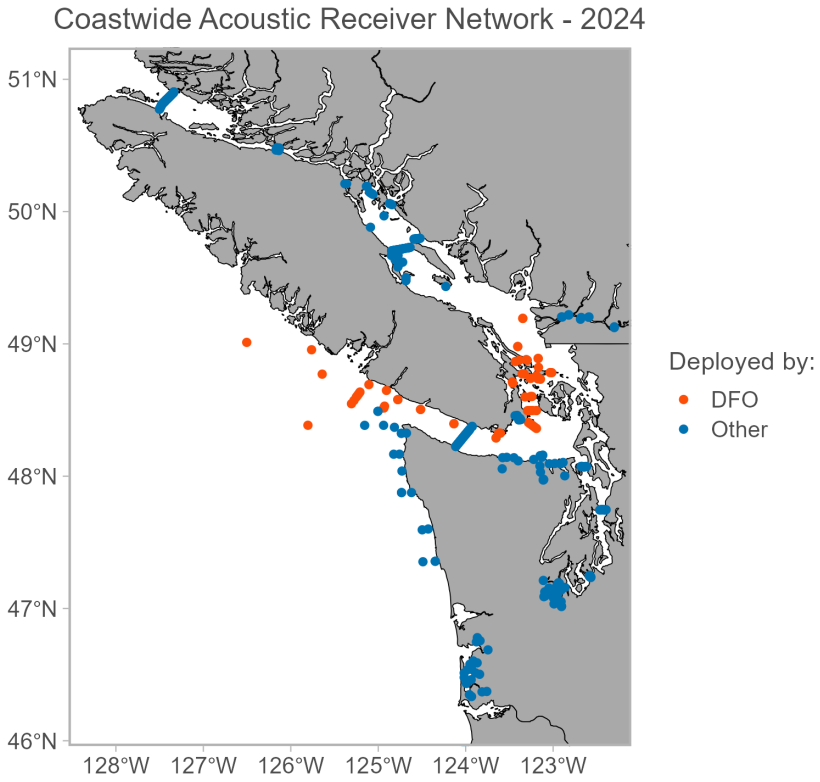

Figure 2: Locations of receivers deployed by DFO (points in orange) and partner organizations (points in blue) in 2024.

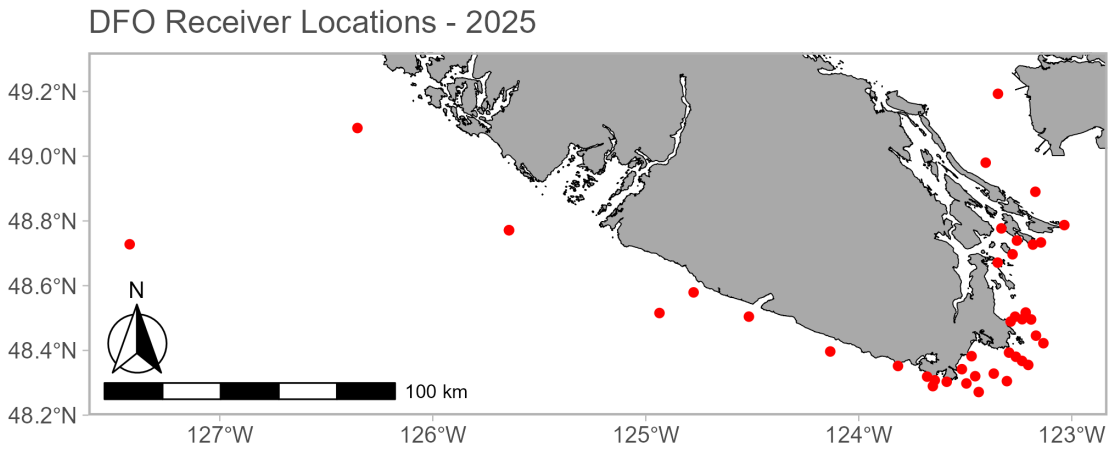

Figure 3: Locations of receivers deployed by DFO in 2025.

2.3 Landing Mortality Estimates

No fish of a taggable size were landed dead; however, since our sample size was relatively small and smaller individuals may be more likely to experience fatal injuries due to capture, we produced landing mortality estimates using additional data and two complimentary approaches. In Method 1, we screened all 2024 Reference Fishery data records from DFO's South Coast Area Stock Assessment for fish with a Release Condition 4 (R4) disposition (Rechisky et al. 2025). R4 is the most severe injury ranking in the South Coast dataset and denotes the presence or combination of heavy bleeding, eye damage, severe wounds, and significant scale loss. Any fish classified as R4 received a detailed comment on the nature of the fish's injuries. We developed a broad list of injury and mortality related keywords (e.g., belly up, dead, bleeding, not swimming, seal, damage), then tokenized the "comments" data for each fish into individual words. We applied string distance methods to identify potential matches between comments and mortality keywords, and all matching records were manually reviewed for further

context. Any fish with a comment suggesting probable mortality (e.g., belly up, dead, mortality, etc.) we classified as a landing mortality. Any R4 fish that swam away upon release, regardless the speed, or severity of its injuries was not classified as a landing mortality since mortality technically would have occurred post-release. Note that this analysis incorporated data from all 2024 SCAS Reference Fisheries, not just those in Areas 19 and 20. Details of spatial extent and catch distribution are available in Rechisky et al. 2025.

In Method 2, we filtered the 2024 Reference Fishery dataset to include only records collected in locations and on days where acoustic tagging events took place. These were filtered for R4 disposition fish, and the comments from this subsample were then tokenized and matched to the mortality keyword dataset. We reviewed all matches for probable mortalities, then calculated landing mortality as the proportion of fish that met the keyword criteria as described above relative to the total number of fish that were encountered.

2.4 Cormack-Jolly-Seber Mark-Recapture Model

Since we were interested in capture- and handling-related effects on mortality we estimated survival rate over discrete observation periods up to 30 days after tagging and assumed mortality after this period was predominantly driven by natural mortality (i.e., predation) and harvest. We note that this approach will be more conservative than current assumptions derived from short-term holding studies (Cox-Rogers et al. 1999) and will be further tested in future sensitivity analyses. We defined a numeric detection history for each individual representing whether an individual was observed on a marine acoustic receiver (survived), undetected (potential mortality), or observed in terminal areas via a receiver, harvest, or broodtake event during each observation period (survived and exited the study area). We defined observation periods at 0-1, 1-5,

5-10, 10-15, 15-30, and greater than 30 days, resulting in a detection matrix with seven columns including the initial release column.

We used a hierarchical Cormack-Jolly-Seber (CJS) model to estimate survival rate ϕ, detection probability p, and probability of exiting the study area ψ (i.e., surviving to enter terminal marine or freshwater habitats). CJS models incorporate a latent variable $z_{i,j}$, which represents the state of individual i during detection event j. In the standard formulation, $z_{i,j}$ indicates whether an individual is alive and available for detection. Here, we extend the model to allow individuals to either remain alive in the monitored system or to exit (including known mortalities), such that $z_{i,j} \in 1 = \text{alive in system}, 2 = \text{exited}$.

The state process is modelled as a recursive Bernoulli sequence in which an individual must both survive ($\phi_{i,j}$) and not exit ($1 - \psi_{i,j}$) in order to remain in the system:

$$\Pr(z_{i,j} = 1 \mid z_{i,j-1} = 1) = \phi_{i,j}(1 - \psi_{i,j}) \tag{1a}$$

$$\Pr(z_{i,j} = 2 \mid z_{i,j-1} = 1) = \phi_{i,j}, \psi_{i,j} + (1 - \phi_{i,j}). \tag{1b}$$

The observation model is then conditioned on the latent state. While in the system ($z_{i,j} = 1$), detections follow a Bernoulli process with detection probability $p_{i,j}$:

$$y_{i,j} \sim \text{Bernoulli}(p_{i,j}), \quad \text{if } z_{i,j} = 1, \tag{2}$$

where $y_{i,j} = 1$ when individual i is detected at j and $y_{i,j} = 0$ when it is alive but undetected. Terminal detections ($y_{i,j} = 2$) are recorded when $z_{i,j} = 2$ through exit from the system. After exit, no further detections are possible and subsequent $y_{i,j}$ are treated as structurally missing.

We incorporated linear predictors on p, ϕ, and ψ using logit link functions. We modelled detection probability p as

$$\text{logit}(p_j) = \gamma_p + \gamma_{p_j} \tag{3}$$

where γ_p is the mean detection probability and γ_{p_j} is a vector of observation-specific deviations modelled as fixed effects. This allows detection probability to vary throughout the study period, accounting for variability due to differences in the duration of observation periods or ecological processes, such as dispersal to locations with relatively fewer receivers.

We modelled survival rate ϕ hierarchically as

$$\text{logit}(\phi_j) = \gamma_\phi + \gamma_{\phi_j} \tag{4}$$

where γ_ϕ is the mean survival rate over the study period and γ_{ϕ_j} are mean observation period-specific (j) deviations. Unlike γ_{p_j}, γ_{ϕ_j} was modelled hierarchically with mean zero and standard deviation σ_{ϕ_j}.

Similarly we modelled ψ hierarchically as

$$\text{logit}(\psi_j) = \gamma_\psi + \gamma_{\psi_j} + \beta_{\psi_j} x_j \tag{5}$$

where γ_ψ is the mean exit probability over the study period and γ_{ψ_j} are mean observation period-specific deviations, which were also modelled hierarchically with mean zero and standard deviation σ_{ψ_j}. Additionally we included a linear predictor β_{ψ_j} on the time index x, which allowed for a linear increase in exit probability over the study period.

We used these parameters to estimate variability in survival over time, as well as cumulative survival Φ. We present estimates for the final observation period (i.e., after 30 days), but note that p, ϕ, and ψ cannot be independently estimated in the last period and focus on estimates of Φ up to 30 days. We explored more complex models that included ecological (tagging date, body size) and capture-related (injuries) covariates, but given minimal variability in survival up to 30 days post-release they provided no additional explanatory power. We present uncertainty using highest posterior density intervals which are analogous to percentile intervals, but better represent irregular distributions. All models were fit in Stan version 2.32.2 using the R programming language version 4.4.3 (Stan Development Team 2024, R Core Team 2021).

3 Results

3.1 Biological Sampling and Tag Deployments

We deployed 50 acoustic tags in 2024 across 23 tagging days (occurring between April 9–June 26) and 102 tags in 2025 arcross 18 days (occurring between April 8–May 22). Mean handling time for tagged Chinook across the study was less than 6 minutes (Table 1).

Table 1: Summary of biometric and injury score data for acoustically tagged fish captured in Pacific Fisheries Management Areas 19 and 20 in 2024 and 2025.

Year	Variable	Mean	SD	n	Range
2024	Fork length (cm)	70.19	7.46	50	60–88
	Girth (cm)	37.96	4.38	50	30–51.5
	Weight (kg)	7.99	2.77	50	4.12–17.8
	Lipid content (%)	6.59	3.24	50	0.73–13.69
	Injury score	0.5	0.61	50	0–2
	Scale loss score	0.9	0.71	50	0–3
	Fin damage score	1.38	0.67	50	0–3
	Trough time (min)	6.14	1.74	50	2–12
2025	Fork length (cm)	68.26	5.67	102	59–82
	Girth (cm)	36.57	3.71	102	29–46
	Weight (kg)	7.14	2.02	102	3.87–13.01
	Lipid content (%)	5.99	2.74	102	0.05–15.24
	Injury score	0.55	0.57	102	0–2
	Scale loss score	0.48	0.66	102	0–3
	Fin damage score	1.77	0.76	102	0–3
	Trough time (min)	4.84	1.38	102	2–9
Total	Fork length (cm)	68.9	6.36	152	59–88
	Girth (cm)	37.03	3.98	152	29–51.5
	Weight (kg)	7.42	2.32	152	3.87–17.8
	Lipid content (%)	6.19	2.92	152	0.05–15.24
	Injury score	0.53	0.59	152	0–2
	Scale loss score	0.62	0.7	152	0–3
	Fin damage score	1.64	0.75	152	0–3
	Trough time (min)	5.26	1.62	152	2–12

The stock composition of tagged fish were similar between years (Figure 4). Across both years, the majority (82%) of Chinook Salmon captured were assigned a stock probability > 80% Puget Sound origin, with 73% of tagged fish originating from the South Puget Sound stock. Fraser River origin fish comprised 10% of tagged fish, with Fraser Fall and Fraser Yearling populations accounting for 7% and 3%, respectively. Fish from the Lower Columbia River stock represented 7% of tagged fish.

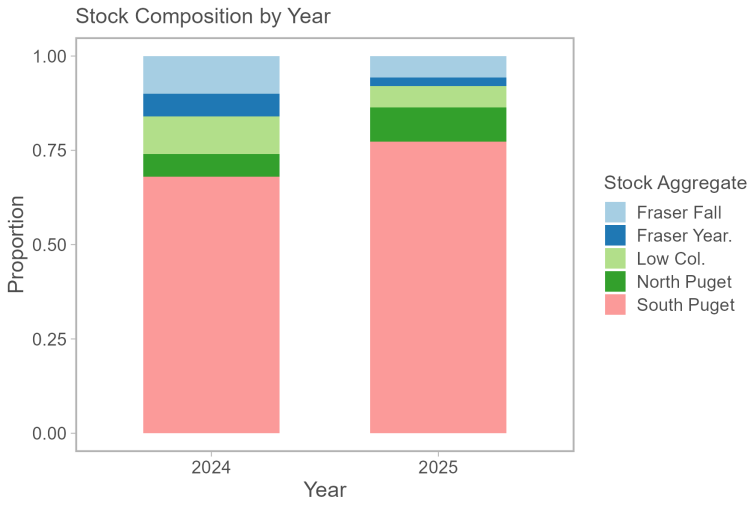

Figure 4: Stock composition of fish tagged in 2024 and 2025.

Across both years, Chinook salmon fork lengths ranged from 59–88 cm, with a mean of 68.9 cm (SD = 6.4) (Table 1, Figure 5). Previous evidence suggests the majority of these individuals would mature in the year they were tagged (Freshwater et al. 2024). Girths ranged from 29–51.5 cm, with a mean of 37 cm (SD = 3.98) (Table 1). Pooled across years, lipid content ranged from 0.05–15.24% wet weight, with a mean of 6.2% (Table 1), and varied considerably among CUs (Figure 6). Fraser Yearling fish exhibited the highest lipid content (median 14%) despite being among the smallest in size (median 68 cm). In contrast, Fraser Fall fish were larger (median 74 cm), but had relatively low lipid content (6%). North Puget fish were intermediate in both size (median 71 cm) and lipid content (10%), while South Puget fish had smaller body sizes with highly variable lipid content. Lower Columbia fish were of moderate size (71 cm) with low lipid content (6%) (Figure 6).

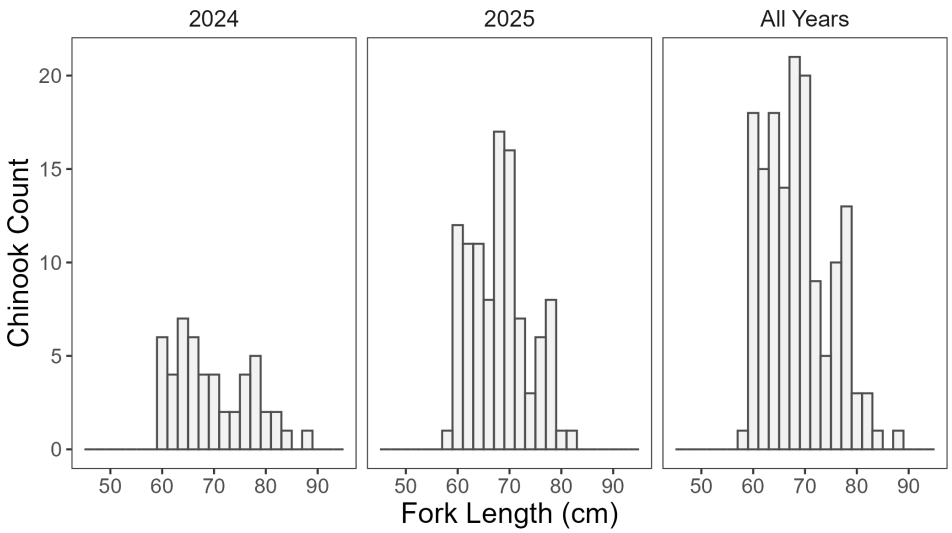

Figure 5: Chinook salmon fork length (cm) frequency plots for 2024, 2025 and both years combined.

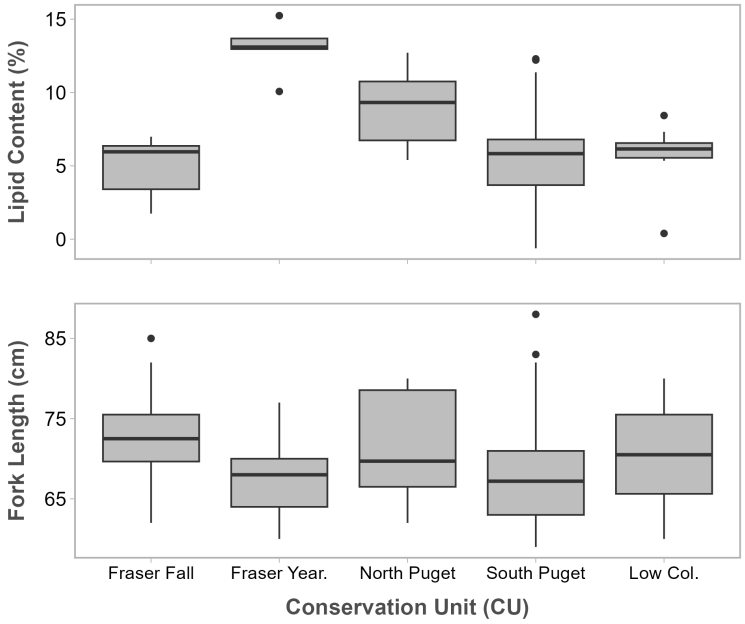

Figure 6: Variability among stocks in lipid content (% wet weight) and fork length (cm).

Pre-existing injuries were rarely observed and capture-related injury scores were generally low (Table 1). Mean eye wound scores were consistent between years (Figure 7), with an overall mean 1.4, suggesting small punctures and slight bleeding. Mean

hooking injury scores were consistent between years (Figure 7), and relatively higher with an overall mean of 2.38 (Table 1), suggesting moderate tearing. Fin damage (a measure of a fish's most damaged fin) and scale loss scores varied moderately between years (Figure 7), with means of 1.64 and 1.62, respectively, consistent with moderate splitting of fin rays and less than 10% scale loss. The adipose clip rate was relatively consistent across 2024 and 2025, with marked fish comprising 67% of all fish caught in both years (Figure 8).

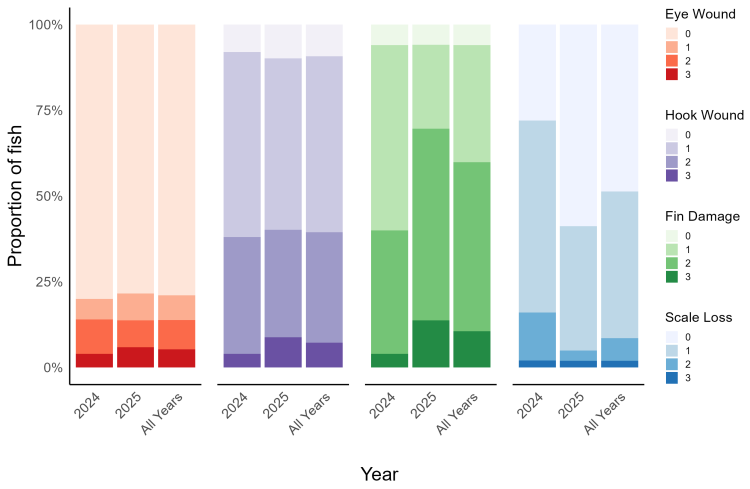

Figure 7: Observed injury scores for eye wounds, hook wounds, fin damage, and scale loss.

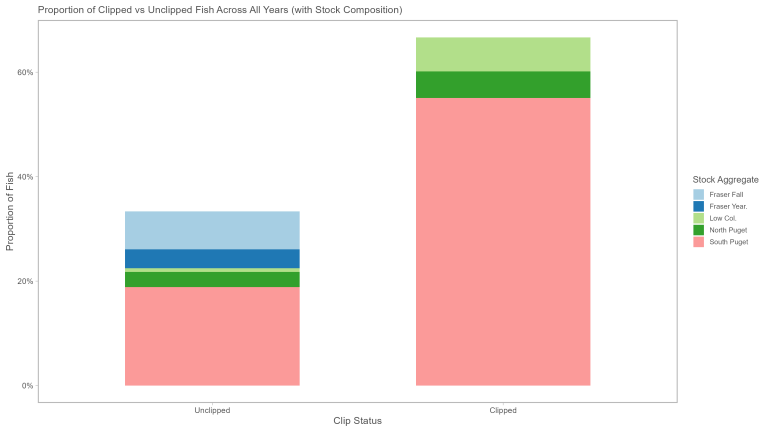

Figure 8: Proportion of tagged fish with clipped adipose fins indicating hatchery release status.

3.2 Landing Mortality Rates

We found 0.002% (9/3668) of fish caught during 2024 Reference fishery (Method 1) were classified as landing mortalities. Of those, 77% (7/9) were sub-legal (< 62 cm) in size. Landing mortalities were distributed across the Strait of Georgia (n=4), Nootka Sound (n=4), and Juan de Fuca Strait (n=1). No fish caught during trips where acoustic tagging occurred in 2024 were classified as landing mortalities (Method 2).

3.3 Acoustic Detections and Estimates of Survival Rate

Acoustic telemetry data were only available from 2024 releases because receiver recoveries are not completed until November each calendar year. As a result we only summarize detections data and survival rate estimates for the DFO pilot program in 2024.

All tags (n=50) deployed in 2024 were detected at least once on a receiver. Time to first detection ranged from less than one to 41 days with a mean of 5.8 days (SD = 10.5). One tagged fish was recorded over several weeks on the Becher Bay receivers near its tagging site, but never observed elsewhere, suggesting it died shortly after release. Time to last detection ranged from 6.4 – 132.5 days with a mean of 66 days (SD = 38.6). A total of 30% of tagged fish (15/50) were detected or recaptured in-river in 2024. Of those, six were detected on receivers in the lower Fraser River, four were caught in rivers within Puget Sound, three were detected on terminal receivers in Puget Sound, and two were detected on PIT arrays in the Columbia River. One fish was caught off the west coast of the Olympic Peninsula.

Median estimated detection probability p was moderate, ranging from 0.5 to 0.68 depending on observation period (Figure 9).

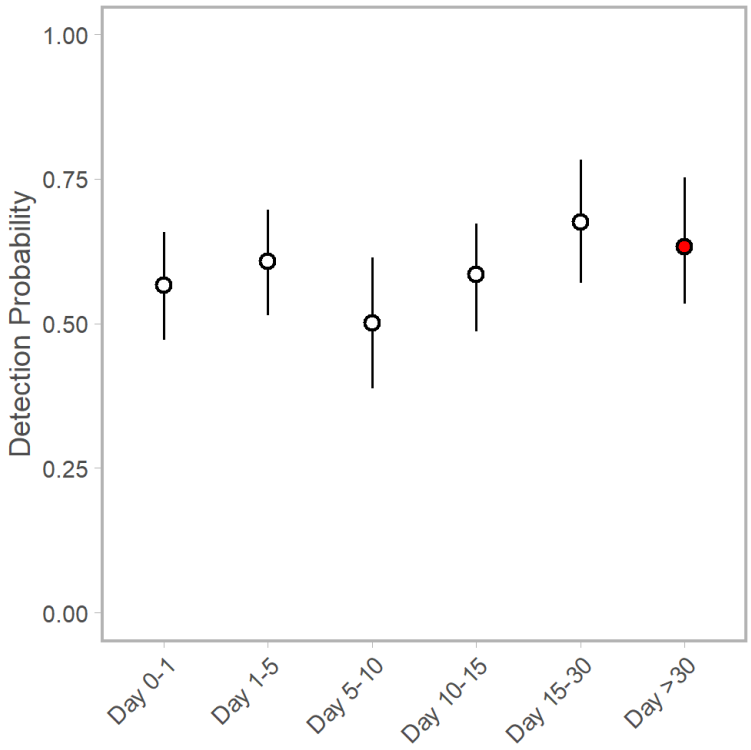

Figure 9: Posterior estimates of detection probability p from mark-recapture model. Estimates of p for the final detection period (red) are confounded with ψ and ϕ and should be interpreted with caution. Note duration varies from one day to multiple weeks among observation periods. Lines represent medians and ribbons 90th HPDI.

Median estimated exit probability ψ was low until more than 30 days post-release when it increased to nearly one; however the estimate was non-zero after five days (Figure 9).

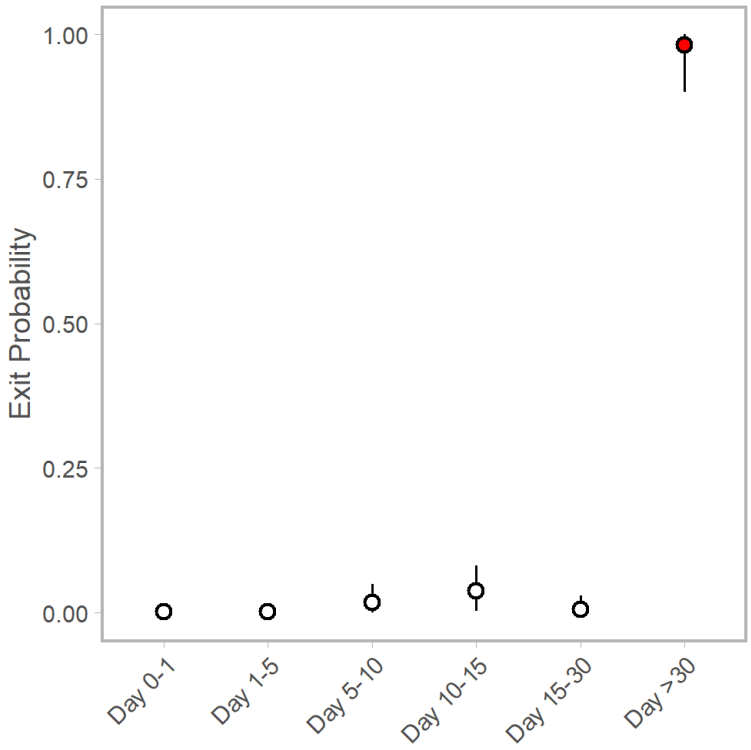

Figure 10: Posterior estimates of exit probability ψ from mark-recapture model. Estimates of ψ for the final detection period (red) are confounded with p and ϕ and should be interpreted with caution. Note duration varies from one day to multiple weeks among observation periods. Lines represent medians and ribbons 90th HPDI.

Median estimated survival rates ϕ were high and did not vary among observation periods ($\sim$ 0.98 for each detection period; Figure 11).

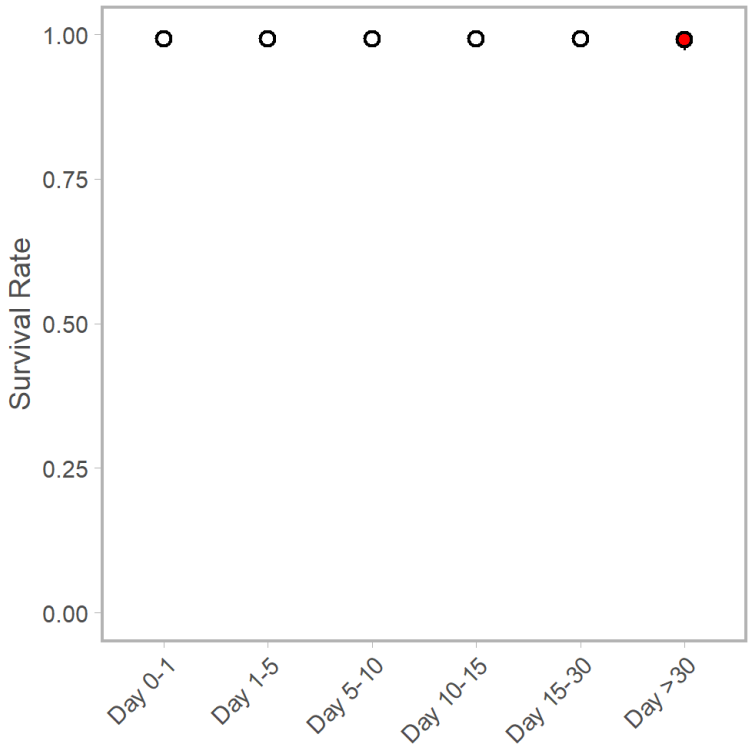

Figure 11: Posterior estimates of survival rate ϕ from mark-recapture model. Estimates of ϕ for the final detection period (red) are confounded with p and ψ and should be interpreted with caution. Note duration varies from one day to multiple weeks among observation periods. Lines represent medians and ribbons 90th HPDI.

The median estimated cumulative survival rate Φ up to 30 days post-release was 0.96 (Figure 12). Note that this excludes the final observation period since survival cannot be reliably partitioned from detection or exit probability without subsequent resighting events.

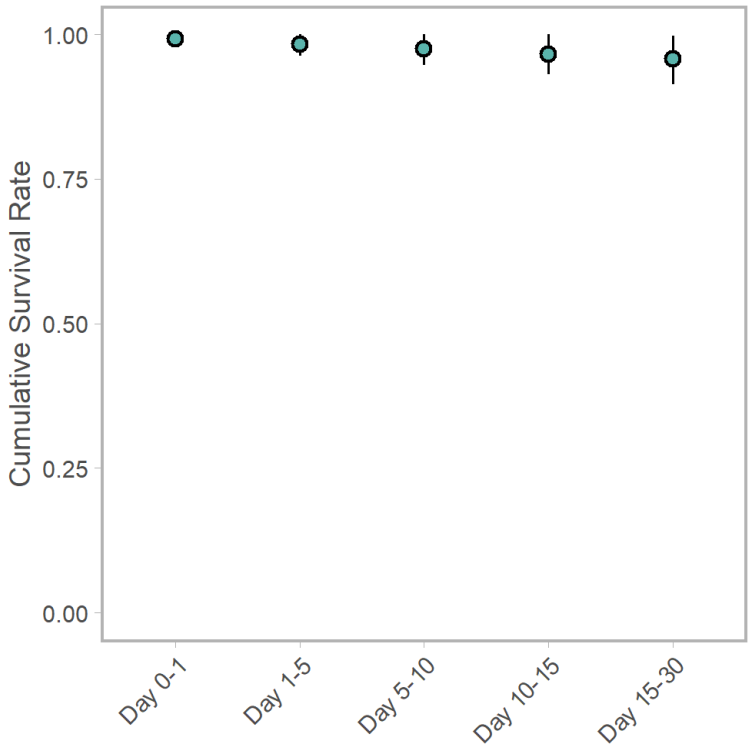

Figure 12: Posterior estimates of cumulative survival rate Φ from mark-recapture model. Estimates of ϕ for the final detection period are confounded with p and ψ so estimates of Φ are not shown here. Note duration varies from one day to multiple weeks among observation periods. Lines represent medians and ribbons 90th HPDI.

3.4 Proposed Hierarchical Survival Model

DFO and UBC researchers collaborated to develop a theoretical model that incorporated the major factors thought to influence post-release survival (Figure 13). Critically, each factor has been recorded in at least one of the previously referenced field studies, allowing a quantitative model to be fit to estimate cumulative effects on survival. The major dimensions of the model include:

1. *Angling Practices*: Given previous evidence that gear type and handling methods can influence injuries (Hinch et al. 2024, Prystay et al. 2025), the model includes effects of net use on fin damage and scale loss, effects of hook size on hooking related injuries and eye wounds, and handling time.

2. *Physical Traits*: The model accounts for direct effects of body size and lipid content on survival, as well as indirect effects on survival via relationships between body size, injury scores, and handling time (Hinch et al. 2024, Prystay et al. 2025). We also include the effect of stock identity which may influence survival directly via behaviour or indirectly via differences in size or lipid content.

3. *Environmental Variables*: We included a sea surface temperature effect since evidence suggests thermal stress may impact survival (Hinch et al. 2024, Prystay et al. 2025). Post-release mortality may also vary spatially or interannually due to differences in unobserved variables (e.g., predator density), which is accounted for with year- and region-specific (i.e., study area location) effects in the model.

4. *Harvest Pressure*: Exploitation rate varies among stocks, years, and fisheries, which may confound estimates of post-release mortality if captured tags are not reported. Fishery-specific calendar year exploitation rates for Pacific Salmon Commission Chinook Technical Committee indicator stocks provide an index of harvest pressure for tagged individuals that can be used to account for these effects (CTC 2023).

5. *Observation Process*: The above processes influence true survival, which is unobserved given imperfect detection probability. Covariates will be modelled as influencing mean survival (γ_ϕ in 4), but the overall model will also estimate survival over time via a CJS framework as described above, allowing us to estimate and account for detection and exit probabilities which likely vary among years and studies.

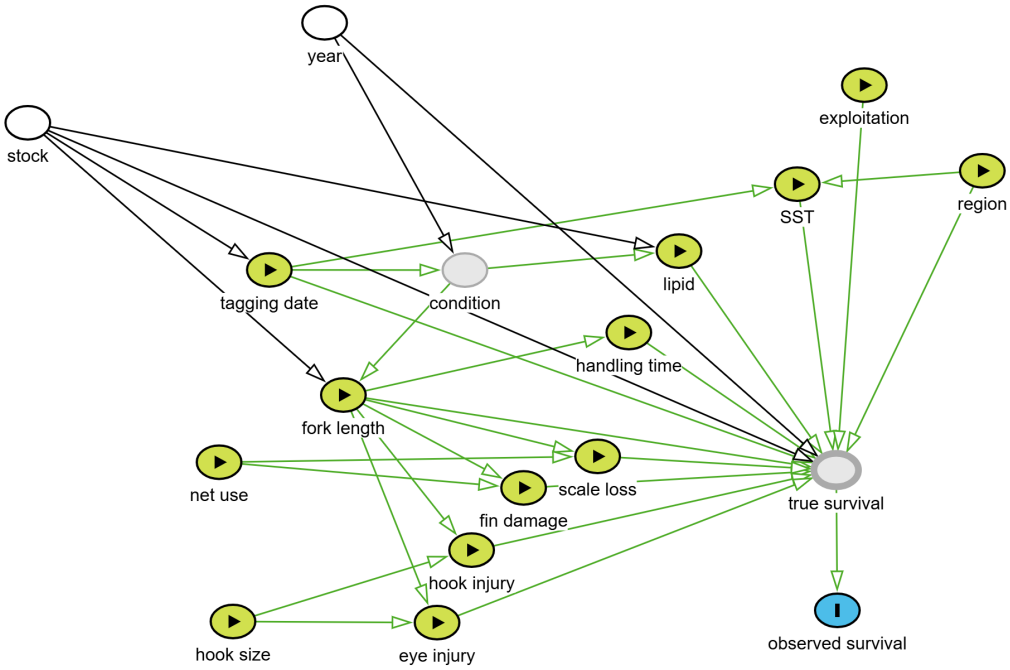

Figure 13: Proposed hierarchical model to quantify the cumulative impact of angler practices, ecological traits, and harvest pressure on post-release mortality, while accounting for interannual and spatial variability. Edges represent direct effects between parent and child nodes based on the direction of the arrow. Green nodes are fixed effects; white nodes are hierarchical intercepts; grey nodes are latent, unobserved processes. The blue node represents the response variable, observed survival. The model fits all relationships simultaneously in a joint likelihood structure.

4 Discussion

The majority of Chinook salmon greater than 60 cm in eastern Juan de Fuca Strait were hatchery-origin and belonged to populations from southern Puget Sound. A small number of individuals from threatened Fraser River yearling populations were encountered, along with an intermediate number of North Puget Sound, Fraser River Fall subyearling, and Lower Columbia River individuals. The stock composition we observed is consistent with more comprehensive scientific sampling by Reference Fisheries throughout the southern Salish Sea in 2023 and 2024 (Rechisky et al. 2024, 2025).

Very few Chinook salmon were dead when landed and the majority of mortalities were sublegal sized individuals, consistent with evidence that capture-related mortality is higher for smaller individuals (Cox-Rogers et al. 1999). We did not find evidence of variability in survival rate over the 30 days post-release. Instead survival rates were consistently high (~0.98 for each period), resulting in a median estimate of cumulative survival up to 30 days that was also high, ~ 0.95. Although size influenced landing mortality rates, we did not find evidence in preliminary models that it (or other covariates) influenced post-release survival; however, negligible effects are not unexpected given high overall survival, especially since we did not tag fish smaller than 60 cm, and our relatively small sample size.

The estimated survival rates here are higher than some previously reported estimates (Hinch et al. 2024). Yet there are several reasons why our preliminary results should not supersede these findings and, when placed in an appropriate context, may complement them. First, our sample of 50 individuals is relatively small. Larger studies have a greater probability of accurately estimating survival rates and incorporating the additional 102 animals tagged in 2025 may alter our conclusions.

Second, we used minimally invasive fishing gear (all hooks single, barbless, 3 ought or smaller) and relatively ideal handling practices (e.g., minimal air exposure). As a result, capture related injuries that strongly influence survival were rare (Hinch et al. 2024, Lunzmann-Cooke et al. 2024). It is unsurprising that previous studies that included larger hook sizes, exposed fish to extensive periods out of water, and recorded higher injury rates would also observe higher mortality rates (Hinch et al. 2024). Furthermore, survival rates are likely influenced by time and location. Several previous studies occurred during relatively warm periods and targeted fish in near-terminal areas, which may have influenced their ability to recover (Hinch et al. 2024).

Third, our modelling framework accounted for imperfect detection probability, which was modest (median estimates ranged from 0.5 to 0.7) and varied throughout

the release period, as well as the probability that fish exited the study area entirely. While it is unclear what caused detection probability to vary, it is unsurprising given the majority of tagged fish remained at large for several months prior to beginning directed spawning migrations. As they continued to feed, tagged Chinook salmon underwent extensive movements that did not necessarily overlap with receiver arrays that were relatively sparsely distributed. Failing to account for imperfect detection or exit probability, particularly in locations where fish may not encounter arrays, can bias survival estimates downwards. We note, however, that it is difficult to determine how large this effect is *a priori* and that not all previously reported studies are likely to be impacted. For example, estimates of coho salmon post-release mortality were derived from individuals undergoing directed migrations that passed relatively dense receiver arrays with high detection probability (Lunzmann-Cooke et al. 2024).

More generally the contrast between the 2024 tag deployments and previous work highlights the importance of a synthetic analysis that leverages the largest number of tag deployments possible, while accounting for variability in angling practices, ecological traits, and harvest pressure explicitly. An integrated hierarchical analysis could also be used to estimate residual differences among study areas (a proxy for local fisheries) that may represent difficult to observe processes such as fish behaviour or predation risk. The acoustic receivers deployed in 2025 will be recovered by the end of the year and data will be made available from collaborators in early 2026. Once this occurs we anticipate having acoustic detections data from more than 1000 tagged Chinook salmon. We have received additional funding from the MSF fund to support finalizing data assembly, fitting the proposed hierarchical model, and summarizing model outputs to provide robust estimates of post-release mortality.

5 Project Outcome

Project Deliverables: The collaborative agreement identified the following deliverables, which were met as outlined in this report.

1. Deployment of at least 75 acoustic tags on Chinook salmon sampled in southern British Columbia reference fisheries and collection of associated biological data.

2. Summary of field work completed in 2025.

3. Preliminary report based on data available by Nov. 1, 2025.

Project Schedule: The project deliverables were completed within the designated timelines.

Monitoring and Evaluation: Preliminary survival analyses have been completed and the remaining acoustic detections data will be collected and collated by March 31, 2026. We have also developed a theoretical model which will be finalized and fit to data by March 31, 2027.

Benefits: The project has provided additional estimates of landing and post-release mortality, two of the major components of fisheries-related incidental mortality, which can be incorporated into future stock assessments to better understand the risks and benefits of mark selective fisheries.

6 Acknowledgements

We thank DFO Science staff Phil Lemp, Chad Nordstrom, Caitlin O'Neil, Robyn Taves, and Rianna Burnham, as well as Charlie Twaddle, Saige Woodliffe and Joelene Nuemann for field support . Thanks are also extended to fishing guides Martin Paish and Justin Wilson. We are grateful to the Pacific Salmon Commission for funding support.

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Mark Selective Fishery Fund Project Report (MSF-24-06)

Project Title:	Mass marking of hatchery produced Conuma River and Gold River Chinook salmon
Period covered:	March 1, 2025, to May 1, 2025
Name of Organization / Affiliation:	Fisheries and Oceans Canada
Principal Investigator / Project Lead:	Pieter Van Will

1. Summary of Mass Marking 2024 Brood Year for Conuma and Gold River Chinook

This was the second year of mass marking supported by the PSC Mark Selective Fishery Fund for the Conuma and Gold River Chinook. The proposed plan was to mass mark, via adipose clip, the entire production of Chinook from the Conuma (up to three million) and Gold (up to five hundred thousand) Rivers (Figure 1). Manual marking was initiated on March 3rd and continued until April 28th for 39 days. Over that period 100% of the production of Conuma River (2,710,447 Chinook) and of Gold River (517,285 Chinook) were marked (*Table 1*).

A total of 3,227,732 Chinook were manually marked with an average of 82,762 marks per day with a range from 44,411 to 106,116 (Figure 2). Including brood year 2024, Conuma Chinook production has been 100% marked since brood year 2020. Adult returns in 2025 of Conuma stock will include all age classes (2-5) with 100% marking of the hatchery production. Gold River stock has been 100% marked since brood year 2023. It is hoped that continued marking will help to support the development of selective harvest opportunities within the Nootka/Esperanza area including terminal fisheries. Mass Marking will also help support broodstock management at key sites within the Nootka/Esperanza area and the evaluation of hatchery strays to other systems.

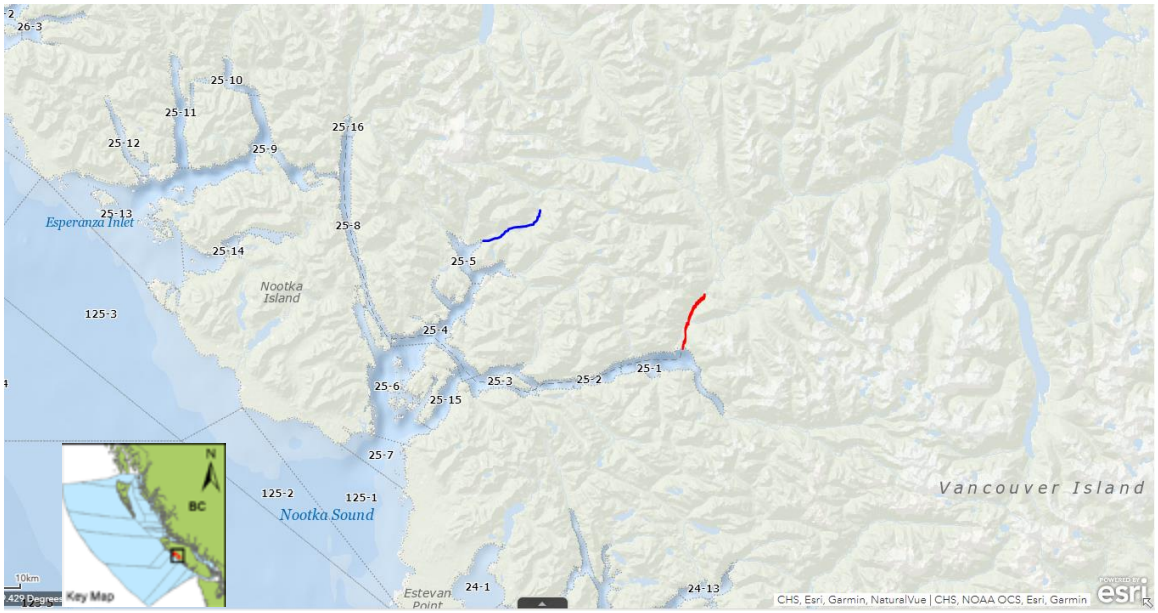

Figure 1. Pacific Fishery Management Area (PFMA) 25 includes Esperanza and Nootka Sound. Conuma River (thick blue line) and the Gold River (thick red line). Conuma Hatchery is located on the Conuma River.

Table 1. Brood year releases and marking (clipped, i.e., removal of the adipose fin) of hatchery produced Conuma and Gold Chinook stocks (2018-2024).

Release site	Brood Year	Brood year release Information			
		Not marked	# Clipped	Total Released	% Marked
Gold	2023	0	538,933	538,933	100%
	2024	**0**	**517,285**	**517,285**	**100%**
Conuma	2018	3,103,617	0	3,103,617	0%
	2019	2,487,604	763,203	3,250,807	23%
	2020	0	2,866,468	2,866,468	100%
	2021	0	2,775,426	2,775,426	100%
	2022	0	2,994,415	2,994,415	100%
	2023	0	2,704,888	2,704,888	100%
	2024	**0**	**2,710,447**	**2,710,447**	**100%**

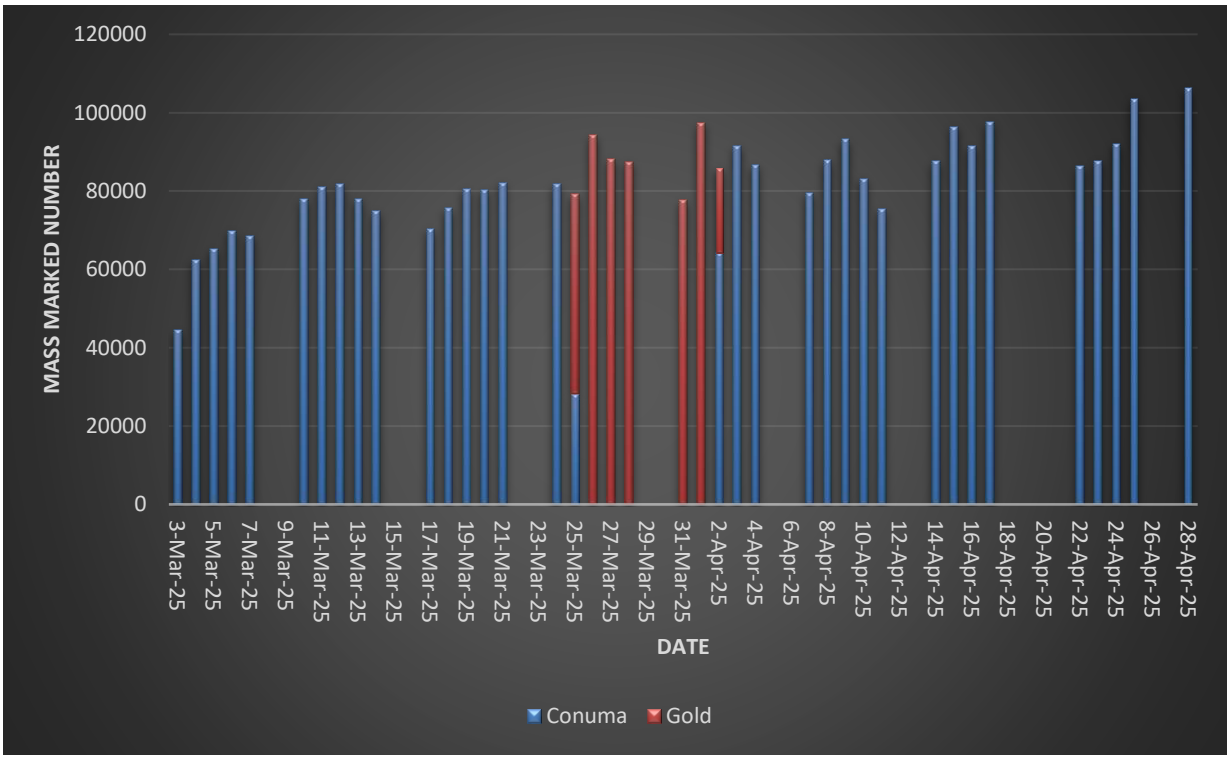

Figure 2. Daily Mass Marked Chinook by stock during the spring of 2025

2. Milestones and Timeline

The project schedule was met and the target of successfully marking 100% of the Conuma and Gold River Chinook production was achieved.

3. Key Area of work

Please see above.

4. Challenges and resolutions

The project did not encounter any significant issues in the marking or fish health.

5. Next Steps

- Project was on schedule and on budget.
- The Project was completed with 100% of the Conuma and Gold River Chinook production marked.
- Look to continue marking into the future.

Project Title:
Populating a Coastwide Chinook and Coho Fishing Regulations Database

MSF-24-09

Performance Period:
November 1st, 2024, to October 31st, 2025

Name of Organization
Pacific State Marine Fisheries Commission

Principal Investigator / Project Lead:
Nancy Leonard, Pacific States Marine Fisheries Commission, 6720 S Macadam Ave., Suite 200
Portland, OR 97219, (503) 595-3100, nleonard@psmfc.org

Abstract
The Coastwide Chinook and Coho Fishing Regulations Database project seeks to aid The Pacific Salmon Commission (PSC) in accounting for the impact of mark-selective fishery regulations (MSF) on salmon species exploitation rates and other analysis efforts though the development of a database that links coastwide salmon regulations to the existing catch sample data in information systems like the Regional Mark Information System (RMIS). The project objective is to implement phase 2 tasks focused on finalizing refinements and produce version 2.0 of the database, data model, and of the data entry form. Phase 2 also focused on initiating version 1.0 of the data query web-based interface based on agreed to mock-up during phase 1, continuing with data entry and scoping out the feasibility of using large language models to streamline the data entry process.

Introduction
The Pacific Salmon Commission requires accurate and comprehensive data to assess mark-selective fishery impacts and fulfill the objectives outlined in the Chinook Chapter of the Pacific Salmon Treaty. This project aimed to address critical gaps in the ability to link fishery regulations to catch and release estimates by developing and populating a coastwide fishing regulations database for Chinook and Coho salmon. This effort builds upon a 2022 feasibility study and prototype database, focusing on transitioning to a permanent location, refining the database structure, and integrating it into broader PSC data systems.

While other regulation database projects are active in the Pacific Northwest and California, the team deliberately avoided non-PSC distractions, maintaining focus on the specific tasks needed to support PSC objectives. By adhering to this focus, the project sought to continue with the development of a tool capable of addressing PSC's technical needs while remaining scalable for future enhancements.

Methods
To meet the objectives of developing and populating the fishing regulations database, the project employed several methodologies:
Database 2.0 and associated Data Model and Data Entry Form

We completed major database schema restructuring in early 2025 to accommodate Southeast Alaska's complex regulatory environment. The updates built upon the relational structure from phase 1, adding flexibility for hierarchical regulation structures across multiple jurisdictions. The data entry form was refined based on actual use by the expanded team, incorporating lessons from Columbia River and Southeast Alaska data compilation.

Web Application Production Version 1.0

We developed and launched version 1.0 of the web-based query application. Development continued throughout the performance period with regular updates as new data became available. The interface evolved based on CTC biologist feedback and phase 1 user requirements. The application provides query capabilities for regulations data and serves as the primary stakeholder access point.

Regulations Data Entry

Data entry accelerated after staffing expansion. We focused on MSF regulations for Chinook and Coho in intensively monitored regions—Columbia River mainstem and tributaries, and Puget Sound. This refined focus emerged after pilot work revealed that the full scope exceeded initial estimates. We prioritized years relevant to PSC analytical needs, completing Columbia River entries for 2009, 2010, 2011, 2012, 2015, and 2023, plus Southeast Alaska 2023.

Large Language Model Scoping

We conducted a feasibility assessment for using large language models (LLMs) to streamline data entry. The scoping identified potential applications but revealed significant accuracy challenges and validation requirements. Given the critical importance of regulation accuracy for PSC analysis, we determined current LLM technology requires substantial expert oversight. This informed our decision to prioritize expanding human data entry capacity.

Stakeholder Collaboration

We held consistent meetings with Chinook Technical Committee (CTC) biologists every two weeks to monthly. These meetings provided essential feedback and maintained focus on PSC objectives. Biologists contributed insights on regulation source priorities, user interface design, and data accuracy requirements.

Results

Database 2.0 and associated Data Model and Data Entry Form

Database schema updates successfully accommodated complex regulatory structures in Southeast Alaska and tribal fisheries. The relational structure from phase 1 proved robust, requiring targeted additions rather than fundamental redesign. The updated schema better supports temporal regulation changes and in-season modifications. Data entry form refinements improved efficiency and reduced errors based on actual compilation work.

Web Application Production Version 1.0

Version 1.0 of the web application is functional and deployed. Users can query regulations by year, species, area, and regulation type. The application has been tested internally and with CTC biologists. Interface improvements continue based on user feedback. The application provides reliable access to compiled regulation data.

Regulations Data Entry

Expanded staffing enabled substantial progress on historical regulation compilation. Completed datasets include Columbia River MSF regulations for six years (2009, 2010, 2011, 2012, 2015, 2023) and Southeast Alaska 2023 salmon regulations. We estimate approximately 50% of priority historical regulation data remains, focused on additional Columbia River and Puget Sound years. The work confirmed that comprehensive regulations compilation requires significant expert time and jurisdictional knowledge.

Large Language Model Scoping

Initial LLM scoping indicated potential but significant limitations. Regulations language requires precise interpretation and jurisdictional expertise that current LLM technology cannot reliably provide without extensive human oversight. Testing revealed error rates incompatible with PSC analytical requirements. We concluded that expanding human data entry capacity delivers more reliable near-term results.

Stakeholder Engagement

Regular meetings with CTC biologists provided essential guidance throughout the project. Their input shaped key project deliverables, including:

- Identifying critical sources for regulations data.
- Providing insights into user interface design for the web application.
- Ensuring the project remained aligned with PSC priorities.

GIS and RMIS Integration Progress

GIS integration remains challenging due to mismatched geographies between RMIS reporting domains and regulation areas. We're developing spatial crosswalks with PSMFC's GIS team and RMIS staff. Initial demonstrations are targeted for September 2025. This integration is essential for linking catch and recovery data to regulations.

Discussion

The project made solid progress despite encountering a larger scope than initially anticipated. Expanding staffing from one to three people proved critical for maintaining momentum on data compilation while continuing database and application development.

Jordan Miller's addition focused on GIS integration proved valuable for planning RMIS-regulation linkage. Will's Southeast Alaska fisheries background enabled efficient handling of that region's complex regulations. His part-time allocation from another PSMFC project provided flexible capacity without full MSF funding.

We refined the project focus after pilot work revealed full scope. Rather than attempting comprehensive coverage of all areas and years, we targeted MSF regulations for Chinook and Coho in the most intensively monitored regions. This focus aligns with PSC priorities and enables completion of meaningful datasets rather than spreading effort too thin.

The GIS integration challenge persists. RMIS reporting domains don't align cleanly with regulations area boundaries, requiring spatial analysis to create crosswalks. We're actively working with PSMFC's GIS team and RMIS staff on solutions.

Web application development stayed on track despite data compilation challenges. Early phase 1 prototyping provided a solid foundation. Regular CTC feedback kept development aligned with user needs.

LLM scoping delivered useful information even though we decided against LLM-assisted data entry currently. Regulations interpretation requires expert judgment that current LLM technology can't reliably provide. Accuracy requirements for PSC analytical work don't allow observed error rates. Expanding human capacity proved more practical.

Conclusion and Recommendations

Conclusion

This project delivered on its core objectives. We expanded from one to three staff, completed database version 2.0, launched the web application, and compiled substantial historical regulation datasets covering six Columbia River years and Southeast Alaska 2023. The GIS work progressed significantly—Jordan developed spatial crosswalks between RMIS reporting domains and regulation areas, completed initial analysis of geographic alignment issues, and built prototype overlays for Columbia River. We also completed LLM feasibility scoping, which showed the technology isn't ready for our accuracy requirements yet but has future potential.

Recommendations

The project has been funded for 2026 to complete the work. Next year we'll finish the priority historical data entry for Columbia River and Puget Sound, finalize the GIS integration to enable automated RMIS-regulation linkage, establish direct database connections to RMIS, and develop a comprehensive LLM approach for compiling historical regulations. The foundation is solid—the database structure works, the web app is functional, we have substantial data compiled, and the GIS strategy is defined.

We recommend maintaining the three-person team through completion, prioritizing GIS integration in the first half of 2026 to enable RMIS connections, and developing the LLM workflow methodically with rigorous validation. The 2026 work will complete the system and transition it to operational use supporting PSC exploitation rate analysis.

Project Deliverables - Were the Stated Objectives Met?

Objective #1: Produce version 2.0 of database, data model, and data entry form

Met. Database schema was restructured to handle complex multi-jurisdictional regulations. Data model accommodates hierarchical regulation structures and temporal changes. Data entry form was refined based on actual compilation work.

Objective #2: Develop version 1.0 of web-based query tool

Met. Web application version 1.0 is deployed and functional. Users can query regulations by multiple parameters. Application incorporates CTC feedback and continues to be refined based on use.

Objective #3: Continue populating database (Chinook MSF 2009 to present)

Partially Met. Completed Columbia River MSF for 2009, 2010, 2011, 2012, 2015, and 2023, plus Southeast Alaska 2023. Approximately 50% of priority historical data remains. Scope proved larger than anticipated, leading to refined focus on most critical regions.

Objective #4: Scope LLM feasibility for data entry
Met. Completed feasibility assessment. Determined current LLM technology requires substantial expert oversight for regulations interpretation. Accuracy requirements for PSC work led to decision to prioritize human data entry capacity.

Project Schedule - Did the Project Run According to Schedule?
The project ran generally on schedule with adaptations for scope refinements. Staffing expansion occurred early in the performance period, enabling accelerated data compilation. Database schema updates were completed in early 2025 as planned. Web application development proceeded on schedule despite data compilation challenges. GIS integration work is ongoing with demonstrations targeted for September 2025. The larger-than-expected scope for historical regulation compilation required focus refinement but didn't prevent delivery of key milestones.

Benefits - What Tangible Benefits Have Resulted from the Project?
- Functional web application providing centralized access to salmon fishing regulations
- Database schema capable of accurately capturing complex multi-jurisdictional regulations
- Substantial historical regulation datasets for Columbia River (6 years) and Southeast Alaska (2023)
- Foundation for linking RMIS catch data with regulation areas through GIS integration
- Regular stakeholder engagement ensuring alignment with PSC analytical priorities
- Validated approach and staffing model for continued historical data compilation
- Improved understanding of regulation data complexity informing realistic project planning
- Prototype GIS spatial overlays demonstrating feasibility of automated RMIS-regulation linkage

Mark Selective Fishery Fund
Project Progress Report

Project Title:	**MSF-23-03 - Implementing a Canadian "Node" in the DIT Network Recommended in the CYER WG: Double Index Tagging and Escapement Recovery of Big Qualicum Chinook as an Audit of the CYER Analytical Methods being Implemented by the CTC**
Period covered:	**Year 2: April 2025-March 2026**
Name of Organization / Affiliation:	Department of Fisheries and Oceans Canada
Principal Investigator / Project Lead:	Laura Tessier, Rob Houtman, and Norah Brown

1. Summary/status of project

Project Overview

The Pacific Salmon Treaty (PST) uses indicator stocks to monitor naturally-spawning Chinook salmon escapement to meet management objectives and ISBM fishery limits according to Annex IV, Chapter 3, Attachment I of the 2019 Pacific Salmon Treaty. With the addition of mass marking and mark-selective fishing (MSF), the underlying assumption that a CWT indicator stock of hatchery-origin fish accurately represents the fishery impacts on the escapement indicator stocks is no longer valid. To address this, the CYER WG recommended that estimation of Calendar Year Exploitation Rates (CYERs) employ a single index tag (SIT) method in their analysis (Recommendation 2.1, PSC Tech. Rep. No. 50, 2023).

While the SIT method was recommended by the CYER WG after a thorough investigation, it is important that any method being applied in fisheries is validated utilizing real-world data. To ensure an accurate estimation of MSF impacts, implementing a DIT Indicator Network will allow for an ongoing assessment of the performance of the SIT method. The DIT Indicator Network will provide a direct observation of tag recoveries which can be used to calculate total (rather than fishery specific) ERs to assess the accuracy of the estimates provided by the SIT method. Should the assessment demonstrate biases within the estimates, this will allow us to determine where they are occurring and make the necessary corrections to provide the best possible estimates.

Therefore, this project will implement the first Canadian Chinook DIT indicator stock which will allow for an assessment of the accuracy of the CYER estimates developed using the adopted SIT methods for southern BC Chinook stocks impacted by MSFs. The stock selected to represent the DIT Indicator Network is Big Qualicum River, which meets several of the criteria specified in Recommendation 3.2 of PSC Tech. Rep. No. 50, 2023. This also provides an opportunity for enhanced monitoring of salmon stocks as the data collected from this program will be used to improve and validate the assumption that a CWT Indicator stock represents a naturally-spawning Chinook salmon stock. Enhanced monitoring is essential to achieve accurate assessments of productivity and status of Chinook salmon stocks, particularly for vulnerable populations. Additionally, enhanced monitoring of MSFs is currently an initiative being pursued domestically to ensure salmon stocks are not negatively impacted by the implementation of MSFs.

Progress to date

The hatchery tagged and released an unmarked group of fish (200k) in the spring of 2024 and 2025, which is the same number of releases as the regular marked CTW release group. The hatchery implemented new practices to avoid confounding variables during release, and to ensure that both the unmarked and marked CWT release groups were as identical as possible with the exception of mark status. A tag loss study was conducted to determine the retention rate of the tags that were applied to both the marked and unmarked CWTd fish.

The first group of unmarked CWTd fish have returned to Big Qualicum River as 2 year olds (jacks) in the fall of 2025. We have sampled the heads of all the unmarked fish that were anticipated to have a CWT based on being run through the R9500 tube detector. Additionally, the remaining equipment (R9500 tube detector, T-wand) that will be used to continue escapement sampling for this project has been ordered and received. Over the fall and winter, stands will be built for the equipment to improve the set up for next year when there are more fish returning.

Next spring will be the third and final group of unmarked fish tagged and released for this funding cycle (MSF-23-03) but the project will continue on with funding confirmed until 2029.

Goals achieved

- CWTd and released of the two cohorts of Chinook for the DIT stock
- Ordered and received escapement sampling at CDFO: now stored at the hatchery
- Escapement sampling of Age 2 CWTd unmarked fish complete
- Initiating preliminary results draft report (due February 2027)

2. Milestones and Timeline

Table 1: Timeline and status of the project "Implementing a Canadian "Node" in the DIT Network Recommended in the CYER WG: Double Index Tagging and Escapement Recovery of Big Qualicum Chinook as an Audit of the CYER Analytical Methods being Implemented by the CTC". Green shaded cells indicate a milestone has been achieved, yellow shaded cells indicate a milestone is pending completion, and red shaded cells indicate a delay or issue with achievement of the milestone.

Date	Milestone	Status
Spring 2024	Hatchery releases an unmarked, CWT group of 200k Chinook (same size and age as regular marked CWT release group).	Complete
Dec 2024	Submit Progress Summary Report on 2024 project activities.	Complete
Spring 2025	Hatchery releases an unmarked, coded wire tagged group of 200k Chinook (same size and age as regular marked CWT release group).	Complete
Summer 2025	Purchase of equipment for escapement sampling (tunnel, gate, T-wand, etc)	Complete
Fall 2025	PBS staff sample returns of unmarked CWT fish.	Complete
Nov 2025	Submit Financial Statement to PSC via Temelio	Pending
Dec 2025	Submit Progress Summary Report on 2025 project activities via Temelio.	Pending
Spring 2026	Hatchery releases an unmarked, coded wire tagged group of 200k Chinook (same size and age as regular marked CWT release group).	
Fall 2026	PBS staff sample returns of unmarked CWT fish.	
Dec 2026	Submit Progress Summary Report on 2026 project activities.	
2026/27	Preliminary analyses to audit SIT method, based only on 2- and 3-year-old returns.	
Feb 2027	Submit Final Project Report and Full Accounting of Financial Expenditures for 2024 – 2026 MSF Fund Project	
Spring 2027	Tagging of the fourth cohort of fish and escapement recovery of previous cohorts.	
Dec 2027	Progress report and interim financial statement to the PSC on 2027 activities.	
Spring 2028	Tagging of the next cohort of fish and escapement recovery of previous cohorts.	
Dec 2028	Progress report and interim financial statement to the PSC on 2028 activities.	
Spring 2029	Tagging of the next cohort of fish and escapement recovery of previous cohorts.	
Dec 2029	Progress report to the PSC on all 2029 activities	
Feb 2030	Final report and financial statement to the PSC on the Project including preliminary analysis of two complete recovery cycles on the accuracy of the SIT method for evaluating MSF impacts.	
Feb 2030	Final Payment/Holdback	

3. Key area of work

The first objective to tag and release 200k unmarked Chinook (the same number of marked Chinook) has been completed in the spring of 2024 and 2025. These cohorts have been released to represent the DIT pair of regularly marked and CWTd ER release group. The fish were tagged using an automatic tagging trailer, and data was collected for potential tag loss. The first cohort of fish (2024) returned as age-2's and were sampled at escapement. The heads were taken and sent to the lab to read the tags, and we anticipate receiving the data and being able to produce preliminary results in the upcoming year.

Tags and supplies for the 2026 cohort will be ordered in the winter in order to prepare for the next round of tagging and releasing 200k unmarked Chinook. Escapement sampling for both age-2 (2025) and age-3 (2024) returns will occur fall of 2026, with the potential of preliminary analysis being conducted once the lab has analyzed the head samples sent in fall 2025. Therefore, at this point there are no interim results to report.

4. Challenges and resolutions

The project initially encountered an issue with the ability for CDFO to receive funds from PSC for the purchase of CWTs for the first cohort of fish. However, we were able to work within the Department to cover the invoice for 2024, and the account has now been generated. There have been no further delays or issues with the purchasing of equipment or receiving funds.

There were limitations with the availability of containers at the BQR hatchery which affected the number of fish that were retained after tagging to measure rates of tag loss. While the goal was to retain 2000 fish total, due to tank renovations all fish had to be retained together for the 30 day holding period to measure tag loss. In the production AdCWT/Late Release fish group, 523/524 retained their tags, leading to a 99.8% tag retention rate. For the production CWT only group, 532/533 (+ 1 mortality, retained tag) retained their tags, resulting in a 99.8% tag retention rate.

If samples are taken individually as they were in 2025, the capacity of DFO staff and the escapement sampling contractor to sample all sizes of unmarked Chinook for tags will be a challenge for the fall of 2026. In 2025, a size cut off was applied to "jacks" and only unmarked Chinook under 62cm fork length were sampled. By using this size cut-off, the number of fish that needed to be checked for tags was reduced, which allowed for more flexibility in the number of staff and equipment required at the hatchery. However, it is possible that larger age-2 fish may have been missed from the first year of sampling, but this will not occur in future years as all sizes of unmarked Chinook will be checked for tags, although more staff and additional equipment will be required. A bulk sampling method may be implemented to offset the additional workload, where biological data (size and sex) will not be collected and heads will be combined together in bags with one label to be sent to the lab.

At this point there are no other risks identified that would prevent the project from being completed.

5. Next Steps

The project is on schedule and on budget with no delays expected. The scope of the project remains unchanged from the initial proposal, with the majority of work still to be completed as this project is in early stages. Preliminary analysis will not occur until escapement sampling results are available in 2026.

Mark Selective Fishery Fund
Project Progress Report

Project ID
MSF-23-05

Project Title
Mass marking of hatchery produced Conuma River and Gold River Chinook salmon and development of a complementary reference fishery in PFMA 25 (Nootka Sound and Esperanza Inlet)

Period covered
Dec 6, 2024 to Nov 30, 2025

Organization
DFO, Nanaimo (Stock Assessment)

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1. Summary/status of project:

2024 Mass Marking of Conuma and Gold Brood Year 2023
This work was completed. The initial proposal was to 100% mass mark the entire production of Chinook from the Conuma (up to 3 million) and Burman (up to 300 thousand) rivers. After the proposal was submitted, an evaluation of the contribution of strays in the escapement into the Burman River increased our concern regarding the trajectory and rate of loss of native Burman ancestry. It was agreed to by both the PI and the MSF Fund Committee that a shift from mass marking the Burman stock to the Gold River Stock (near the Burman) was a prudent modification to the program. This pivot in the approach to the Burman stock will help to prevent complete loss of native population genetics.

The revised plan was to attempt to mark 100% of the Conuma (~540 thousand), Gold and Robertson Creek Chinook which are the populations that comprise 98% of Burman stray-ins (2012-2022). In the future, this will allow for the near 100% exclusion of strays in our brood collection for Burman stock in future years while supporting a higher contribution of mass marked Chinook returns to Area 25. This plan to aggressively reverse introgression by maximally reducing the stray abundance and maximally increasing high ancestry Burman Chinook on the spawning grounds will require continued mass marking of Conuma, Gold and Robertson Chinook. Mass marking Robertson Creek Chinook was not included in this proposal.

Chinook Reference Fishery
We are currently in year two of three. The Chinook reference fishery was initiated in 2024, and sampling to date has occurred in July and August in 2024 and 2025. The reference fishery methods emulated typical recreational fishing trips targeting Chinook salmon. Professional fishing guides were contracted to maximize catch per unit effort, and all fish caught during the reference fishery were released, with only Chinook brought on board for biological sampling prior to release. For each Chinook captured, catch location and time to landing were recorded as well as fork length and adipose fin clip status. A tissue

sample was collected for genetic stock identification. Sampling occurred during 42 boat days in 2024, and 53 boat days in 2025.

In 2025, Chinook originating from Conuma and Burman hatcheries and returning to Area 25 rivers were expected to be 100% hatchery-marked. These hatchery-origin fish are expected to make up a significant proportion of the stock intercepted by the recreational fishery in Nootka Sound and Esperanza Inlet during July and August.

This multi-year reference fishery for Chinook salmon will inform decisions on the development of a MSF in Nootka Sound and Esperanza Inlet on the west coast of Vancouver Island (Pacific Fishery Management Area 25) to support rebuilding of natural-origin Chinook.

2. Milestones and Timeline

The project schedule had been met. The Chinook reference fishery is currently on schedule with one field season remaining to be complete in 2026. Stock identification results from 2024 have been finalized and presented internally to DFO staff and at external meetings with various stake holders. For 2025, only mark rates and legal rates have been reported so far, as stock identification results are still pending. The 2026 field season is planned to proceed at the same capacity as in 2024 and 2025. Further analysis, including comparisons between DFO's catch monitoring (creel) data and reference fishery data, is either ongoing or pending stock ID results.

All data, methods, and data summaries for the Area 25 reference fishery are summarized in a broader report that reports all Chinook reference fisheries conducted in the South Coast Area of BC. Other Chinook reference fisheries were supported by the Pacific Salmon Strategy Initiative from 2023-2025. The reports have been published on the DFO library (Enhanced Monitoring of Recreational Chinook Salmon Mark-Selective Fisheries in South Coast BC Tidal Waters: Reference Fishery, 2024).

Additionally, all of the data from the 2024 Chinook reference fishery in Area 25 can be downloaded from Canada's Open Government portal (South Coast Area BC Chinook Reference Fishery Biological Data - Open Government Portal).

3. Key area of work

The Chinook reference fishery objectives are to assess the potential for a MSF in Area 25 and to independently verify Chinook salmon catch estimates derived from the creel program, focusing on:

- the proportion of Chinook caught by size class,
- mark rate (proportion of hatchery-marked Chinook), and
- stock composition in mark-selective fisheries (MSFs).

2024 Summary

- **Mark Rates in 2024:**
    - A total of 323 Chinook were sampled:
        - 215 legal-sized Chinook (≥ 45 cm), 108 sub-legal Chinook (< 45 cm).
        - Mark Rate for legal-sized Chinook was lower than expected:
            - All Months: 36%
                - 40% in July.

        - 31% in August.
    - See figure 17: Enhanced Monitoring of Recreational Chinook Salmon Mark-Selective Fisheries in South Coast BC Tidal Waters: Reference Fishery, 2024
- **Stock Identification Results in 2024:**
    - Of 323 samples, 303 fish were successfully identified from genetic stock identification or parentage-based tagging (GSI+PBT). See figure 18: Enhanced Monitoring of Recreational Chinook Salmon Mark-Selective Fisheries in South Coast BC Tidal Waters: Reference Fishery, 2024.
    - Stock composition:
        - Legal-sized fish: Stock composition of legal-size samples was dominated by northwest Vancouver Island (NWVI) Chinook at 41.7% (95% CI: [35.0%, 48.5%]) and southwest Vancouver Island (SWVI) Chinook at 33.9% (95% CI: [27.5%, 40.3%]), followed by Puget Sound and Columbia River stocks.
        - Sub-Legal sized fish: The majority of sub-legal fish were from Puget Sound at 69.1% (95% CI: [59.9%, 78.3%]; Figure 18) followed by NWVI and SWVI stocks.

2025 Summary

- **Mark Rates in 2025:**
    - A total of 297 Chinook were sampled:
        - 215 legal-sized Chinook (≥ 45 cm).
        - 82 sub-legal Chinook (< 45 cm).
    - Mark Rate for legal-sized Chinook increased compared to 2024 which was expected because of the increase in mass marking, particularly of Robertson Creek Chinook that stray into Nootka Sound and Esperanza Inlet:
        - All Months: 60%
        - 56% in July.
        - 65% in August.
- **Stock Identification Results in 2025: are pending**

4. Challenges and resolutions

Challenges Encountered:

- A major challenge in 2025 was contracting charter vessels and guides. Because of the contract amount, a competitive bidding process was required by DFO, which took several months and was finalized only days before sampling began. Despite this tight timeline, no delays or changes to the sampling schedule were needed.

Steps Taken to Overcome Challenges:

- The competitive bidding process included an optional second year, allowing the contractor to extend into 2026. We expect to use the same contractor as in 2025, therefore no contracting-related impacts are anticipated for 2026.

Risks to Project Completion:

- No significant risks have been identified at this stage.

5. Next Steps

Schedule and Budget:

- The project is on schedule and within budget as it moves into the 2026 sampling season.

Delays:

- The only anticipated delay relates to the availability of stock ID results from the DFO molecular genetics lab, but this was expected. This delay will not impact the operation of the program, but it will affect the timing of reporting and analysis.

Remaining Work:

- Two-thirds of the field component of the project is completed, as only one of the three field seasons remain to be executed (July and August 2026). With 2025 stock ID results pending, the majority of results reporting and analysis are yet to be completed.
- After completion of the project, data will be provided to fishery managers to consult with harvesters, including First Nations, in Area 25 on the development of a MSF.

Submission Responses

Mark Selective Fishery Fund
Project Progress Report

Project ID
MSF-24-01

Project Title
Assessment of post-release mortality in the recreational fishery: updating previous work and quantifying the use of best practices.

Period covered
April 2, 2025, to June 30, 2026

Organization
University of British Columbia, The

Report Option
Online Form

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1. Summary/status of project:

The goal of this project is to estimate the survival of Chinook salmon captured and released in the recreational fishery while deploying best practices. In June of 2025 we successfully deployed all 56 of our acoustic tags on Chinook salmon during our field work in Sooke, BC. This was achieved while staying within our budget. We are currently waiting for our acoustic and genetic stock ID data to become available.

2. Milestones and Timeline

We are currently waiting for our acoustic data to be available from the Ocean Tracking Network. It should be available by the end of 2025. In addition, our genetic stock ID results should also be available from DFO by the end of the year as well. Once this data is in hand, we will be able to analyze the data and write our final report.

3. Key area of work

With expanding Mark Selective Fishery implementation, it is increasingly important to quantify the survival of Chinook salmon that are released in the recreational fishery. Over the past four years, our lab group’s research has identified best practices that increase the survival of released fish. To acquire these results in our previous work, angling treatments and vigorous on-board sampling protocols were used. These methods may “over handle” fish and not represent a realistic release

scenario. To update our survival estimates, we utilized these identified best practices (small single hooks, no net use) and minimally handled the fish with a pared-down sampling program while applying acoustic tags to better represent a realistic release scenario. Of the 56 fish that were tagged, six have been reported as captured. Until we have our acoustic and genetic stock ID back, there is nothing else for us to report at this time.

4. Challenges and resolutions

All available tags were deployed, and there are no foreseeable issues with data acquisition once it is available.

5. Next Steps

This project is on schedule and budget, with no expected delays. The scope of the project has not changed, and the next task will be to analyze the data and write the final report once data is available. Our goal after completing the final report is to submit the final report to a scientific journal for publication.

Standing Committee for Scientific Cooperation

PSC Annual Meeting: bilateral session

February 12, 2026

Outline

1. Current assignments and progress to date
2. Proposed 2026/27 CSC activities
3. Items requiring approval from Commissioners

Current assignments

1. Environmental change and the PST
2. District 104 sockeye: standards for genetic analysis

1. Environmental change and the PST

- CSC’s principle, multi-year assignment
- Phase one (2021-2023): document responsiveness of current PST assessment and management framework to environmental change
- Phase two (2024-present): facilitated discussions and technical training on opportunities to strengthen robustness of PST frameworks to environmental change

1. Environmental change and the PST - 2025/26 activities

1. Introduction to Scenario Planning. Virtual, May 2025.
    - Overview and illustration of use by NPFMC, and Atlantic and Puget Sound salmon, to support fisheries management in face of environmental change and uncertainty

2. Demographic Change in Pacific Salmon and Implications for Assessment and Management under the PST. Hybrid, January 2026.
    - Review of evidence for change, potential management consequences, and what they might mean for assessment under the PST

3. Accounting for Changes in Salmon Dynamics. In person, February 2026.
    - Hands on training with statistical and simulation models to characterize time varying population dynamics, assess stock status, and project biological and fishery responses to management actions

2. D104 sockeye genetics - 2025/26 activities

- Ad hoc workgroup (*Planning Inter-Panel Workshop on GSI or PIPWOG*) formed to address concerns raised in April 2024 ADF&G letter about way D104 genetic samples are analyzed and communicated
- CSC assigned in late 2024 to liaise with PIPWOG and provide updates to Commissioners as appropriate.
- CSC met with PIPWOG several times over 2025/26 to receive updates on technical work, track progress, and report back to Liaison Group
- PIPWOG plans to submit final technical report October 2026, and present to commissioners at 2027 post-season or annual meeting

Proposed 2026/27 CSC activities

1. **Environmental change and the PST**
    - Final synthesis report detailing key lessons learned, summary of “good practices” for climate resilient fishery assessment and management frameworks, with focus on aspects relevant to the PST [authored by CSC; Fall 2026]
    - Presentation and panel discussion with PSC community [February 2027]

2. **D104 sockeye genetics**
    - Continue to track progress and report to commissioners as needed
    - Interface with any successor groups or processes as necessary

3. **PICES annual meeting**
    - In spirit of PICES-PSC MoU, potential to participate in relevant symposia, present on 2023 CSC report, report back to Commissioners on any issues/learning relevant to PST

Note:

- The U.S. has agreed to Canada’s request to amend the TOR for the CSC to increase the membership from each country.
- The U.S. proposes increasing the number from each country from 2 to 3.
- The revised TOR will be drafter prior to the 2026 Fall Meeting for the Commission’s consideration.

The CSC is seeking:

1. Feedback on proposed 2026/27 CSC activities
2. Commissioner approval of the 2026/27 CSC workplan

extra

About: Standing Committee on Scientific Cooperation

- Helps Commission advance scientific agenda by identifying emerging issues for new / additional research and presenting scientific information to the Commission
- Monitors Commission's progress in assisting the Parties to enhance cooperation and consultation on science pertinent to the Treaty
- Provides support to PSC technical committees upon the request of the Commission or the committees

- made up of 2 Canadian and 2 U.S. representatives:
  - Canada: Brendan Connors, Cam Freshwater
  - USA: John Carlile, Brian Beckman
  - PSC Executive Secretary and Science Director are ex officio members
- Guided by CSC liaison group:
  - Canada: Andy Thomson and Sue Farlinger
  - USA: Bill Auger and Rick Klumph

PACIFIC SALMON COMMISSION WORK PLAN 2025-2026

Panel / Committee: Standing Committee on Scientific Cooperation (CSC)

Date: February 12, 2026

Update on CSC Work Plan For This Cycle:

Background

In February 2020, the Commission approved a revision to the way the CSC develops its annual workplan which resulted in drafting it in consultation with a bilateral Liaison Group consisting of four commissioners (two from each of the parties) and participation by senior Secretariat staff. The workplan is to be completed each year by the close of the Pacific Salmon Commission (PSC) February annual meeting. This revised process has been used to develop the CSC's workplans since 2021/22 and will continue to be the template for CSC workplans moving forward.

Current Assignments

1. Environmental change and the PST. The Commission authorized the CSC to work on environmental change and its ramifications for management and assessment of salmon stocks covered under the PST in 2020. This assignment grew, in part, out of entries in the 2019, 2020, 2021 and 2022 Chinook Technical Committee (CTC) and Southern Panel's Work Plans that included actions for consideration by the CSC regarding this topic.

2. Standards for genetic analysis of sockeye intercepted in Alaska District 104 Purse Seine Fisheries. At the 2024 fall meeting commissioners instructed the CSC to participate in the ad-hoc GSI working group meetings to observe discussions and stay briefed on developments, receive correspondence from the working group as it plans next steps, provide guidance when requested, update the CSC Liaison Group ahead of the January 2025 meeting, and report out to commissioners as appropriate.

Progress to Date

1. Environmental change and the PST.

The CSC's multi-year, cross-PSC assignment to work on environmental change and its ramifications for management and assessment of salmon stocks covered under the PST has advanced in two phases. The first phase of work consisted of documenting the extent to which the assessment and management frameworks of the PST account for, and are responsive to, uncertainties and impacts posed by the changing environments to which salmon are exposed. This work was presented to the Commission at the 2023 Annual Meeting and published as a PSC special report in May of 2023[1].

The second phase of the CSC's assignment focused on initiating, and providing a dedicated forum for, facilitated discussions across the PSC community about whether PST assessment and management

[1] Standing Committee on Scientific Cooperation. 2023. Assessment and management frameworks of the Pacific Salmon treaty and their robustness to environmental change. Pacific Salmon Commission, Vancouver, BC.

frameworks can be made more robust to environmental change. This phase of the CSC's assignment was supported by the Southern Endowment Fund and an external consulting firm, ESSA Technologies, who contributed to project design and provided technical facilitation.

In year one of phase two (2023/24) of the project the CSC and ESSA held a series of virtual workshops and engagement meetings with PSC panels and technical committees to solicit input on a proposed series of workshops for Year 2.

Based on the input received from PSC panels and technical committees, and as approved by the CSC's Liaison Group, Year 2 (2024/25) focused first on a project "outreach meeting" to share reflections on the feedback received and outline the project plan and workshops for Year 2. Participants in this virtual meeting included 48 PSC members across most Panels and Technical Committees, as well as several Commissioners. Following the outreach meeting the CSC and ESSA hosted three Year 2 workshops.

1. **Climate Resilient Fisheries Management and the Pacific Salmon Treaty (virtual, November 2024):** This workshop was held in response to a request from the PSC community for opportunity to reflect on key characteristics of climate resilient fisheries management systems and their relevance to salmon management and PST contexts. The workshop was supported by a background document that detailed characteristics of climate resilient assessment and management frameworks, and examples of their application in salmon and other fishery contexts. Approximately 60 people from across the PSC participated in the workshop, and all materials (including presentation, background document and summary of break-out group discussion) were subsequently made available to the PSC on the Sharepoint website.

2. **Accounting for Changes in Salmon Dynamics when Providing Management Advice (hybrid, January 2025):** This hybrid seminar and panel discussion was held at the 2025 Post-Season PSC meeting and provided an overview of what is meant by "time-varying dynamics", how common they are among Pacific Salmon stocks, aspects of assessment and management that can be impacted, and some emerging "good" practices. The seminar portion of the workshop leveraged a recent multi-agency and institution project focused on developing guidance around when, where, and how to account for time-varying dynamics in Pacific salmon science advice. Over 100 people from across the PSC participated in the workshop, and all materials (including presentation, background reading and summary of discussion) are available to all the PSC on the SharePoint website.

3. **Introduction to Scenario Planning (virtual, May 2025):** This workshop was an introductory seminar and discussion on scenario planning as one approach to maintaining resilience of fishery systems in the face of uncertain future conditions (including industry changes, socioeconomic shifts, and environmental change and variability). It was about knowledge building and exploration of a topic identified to be of importance to PSC participants in an earlier workshop. The goal of the workshop was to learn more about Scenario Planning as one emerging approach for improving resilience to uncertain future conditions – what it is and when/why it can be useful. All materials (including presentation, background reading and summary of discussion) are available to all the PSC on the SharePoint website.

Year 3 of phase two (2025/2026) has been focused on two workshops dealing with the related issues of demographic (age, sex, size) changes and changing population dynamics.

Changes in age structure and body size are widespread across Pacific salmon species and watersheds in North America, and in many cases appear to be accelerating. Since body size is correlated with fecundity and reproductive success, shifts towards younger age- and size-at-maturity result in reduced population productivity. Furthermore, these changes can have severe negative socioeconomic impacts due to reduced food security and landed value.

- **Seminar and Discussion: Demographic change in Pacific salmon and implications for assessment and management under the PST (hybrid, January 2026):** The CSC hosted a seminar and facilitated discussion on demographic change and its consequences for Pacific salmon assessment and management. This introductory workshop was intended for a general audience and was focused on presenting evidence of demographic changes, exploring potential mechanisms underlying these shifts, and identifying emerging approaches for more explicitly accounting for demographic change in assessment tools. The goal of the workshop was to provide participants with a comprehensive background on the topic and increase awareness about the importance of considering changes in demographic traits alongside trends in abundance. This topic was identified by PSC members in Year 1 as a beneficial topic to address that is relevant across Chapters and species. All materials (including presentation, background reading and summary of discussion) will be available to all the PSC on the SharePoint website.

The population dynamics of many Pacific salmon populations are changing over time. Failing to account (or mis-accounting) for these changes can increase the risk of inaccurate recovery timelines, maladapted biological benchmarks, poor biological performance, and/or reduced fisheries yields. Incorporating time-varying dynamics into assessment and management frameworks can reveal long-term changes in the intrinsic resilience of Pacific salmon stocks and provide estimates of contemporary management reference points that may bolster the sustainability of fisheries under changing conditions. If time-varying dynamics, and their underlying causes, are identified then management interventions can be tailored accordingly.

- **Technical Training: Accounting for Changes in Salmon Dynamics (in-person, will occur in February 2026):** In January 2025, the CSC convened an introductory seminar and panel discussion on “Accounting for changes in salmon dynamics when providing management advice”. As a follow up to the introductory seminar, this in-person workshop is being held to provide participants with hands-on training on quantitative tools and analyses for detecting time-varying dynamics in spawner-recruitment relationships and, where appropriate, developing and evaluating assessment frameworks that account for these changes.

  The workshop will be a mix of lecture-style lessons and hands-on computer exercises. There will be several instructors available to help with implementation and troubleshooting. The instructors will provide case study datasets to work with, but participants are welcome to bring their own spawner-recruitment datasets as well.

The workshop aims to build technical knowledge and capacity and establish a foundation for a community of practice within the PSC community for sharing and discussing applications of these tools and analyses.

2. Standards for genetic analysis of sockeye intercepted in Alaska District 104 Purse Seine Fishery.

Sockeye salmon from the Fraser River are incidentally harvested in the SEAK District 104 (D104) purse seine fishery, which targets pink salmon. Information and samples from fisheries outside the Fraser Area are provided to the Fraser River Panel each year for complete catch accounting and stock composition analyses, including samples from D104.

In April 2024 ADF&G expressed concerns about the way the D104 genetic samples were being analyzed and communicated in a letter to the PSC. In response, an ad-hoc workgroup was formed to address the concerns raised in the ADF&G letter, and specifically to "sort out the history, analytical approaches, and any next steps needed, including the potential of developing certain protocols that might be suggested to the Commission". The workgroup consisted of staff from the DFO, ADF&G, and NOAA genetics labs, PSC staff and the chairs of the Fraser River and Northern Boundary technical committees. The workgroup (now named the Planning Inter-Panel Workshop on GSI/PIPWOG) has met several times since to discuss the issues raised, devise interim solutions to allow genetic analyses to resume, and make several recommendations for moving toward long-term solutions. These recommendations included a request for Commission support for an in-person workshop to develop agreements on fundamental issues, standards, and technical understanding of application and interpretation of GSI within the PSC. The US State Department allocated ~150k USD to support this effort and at the 2024 fall meeting commissioners instructed the CSC to participate in the ad-hoc GSI working group meetings to observe discussions and stay briefed on developments, receive correspondence from the working group as it plans next steps, update the CSC Liaison Group, and report out to Commissioners as appropriate.

Due to 2025 U.S. travel restrictions and scheduling issues, the first workshop originally proposed for April 2025 did not occur. There were tentative plans to hold the workshop early in 2026. However, even in the absence of the workshop, considerable bilateral progress has been made on genetic baseline and method validation, uncertainty estimation, and simulation testing. The CSC briefed the CSC Liaison Group on PIPWoG progress and continuing activities at the January 2026 post-season meeting. Most of the original workshop agenda items that were technical in nature, have been or will be resolved, and will be detailed in a forthcoming technical report. Therefore, PIPWOG proposes not proceeding with a technical workshop. Since the U.S. State Department provided $150,000 for the purpose of conducting the workshop(s), a determination will need to be made by the Commission as to the final use of these funds. The PIPWOG final report should help guide this decision.

The remaining issues surrounding GSI analyses are policy-related and the PIPWoG believes that as a technical group they are not the appropriate entity to pursue resolution of these issues. They intend to identify those in their final report and seek guidance from the Commission as to the appropriate course of action.

Proposed 2026-2027 activities:

Environmental change and the PST.

The CSC's multi-year, cross-PSC, assignment to work on environmental change and its ramifications for management and assessment of salmon stocks covered under the PST has advanced in two phases. As approved by commissioners at the fall 2025 meeting, Year 4 of phase 2 (2026/2027) will focus on the development of the end-of-project synthesis report to communicate the learnings and insights from the project back to the PSC community.

The CSC will provide drafts and updates on the synthesis report to the liaison group periodically throughout 2026 and early 2027, including at the Fall meeting in October of 2026 and the Post-Season meeting in January of 2027 with target of finalizing and delivering the report at the 2027 Annual Meeting in February 2027. ESSA (as the workshop facilitator since 2024) will also complete its obligatory report to the Southern Endowment Fund Committee describing how they utilized the funds provided, but this will be less detailed than the CSC final report and focus on the participation in and execution of the various workshops.

Standards for genetic analysis of salmon intercepted in PST fisheries.

The CSC will attend upcoming PIPWoG meetings and report to the CSC liaison group, and the Commission when requested, on the progress and results of the PIPWoG's work. In addition, the CSC will provide logistical or other assistance to the PIPWoG when requested to aid in the furtherance of their work as mutually agreed upon by the two committees. The CSC will continue to interface with any potential successor groups or processes until any remaining technical and policy issues are resolved.

CSC participation in 2026 Nanaimo PICES meeting.

Members of the CSC are tentatively planning to participate in the 2026 Nanaimo PICES meeting (e.g., as participants in relevant symposia, possibly presenting on our public 2023 CSC report) in October 2026 in the spirit of the PSC-PICES MOU. Should the CSC participate, it will summarize to the Liaison Group any key issues and learnings gleaned from the meeting that are relevant to the PSC.

Proposed timeline:

Table 3. Summary of proposed tasks and timelines for CSC 2026/27 workplan.

Task	Timing	Comments
Attend PIPWoG meetings, as necessary, summarize non-technical issues identified that may benefit from further CSC attention.	2026	Dependent on PIPWoG outreach.
Updates to the CSC liaison group and Commission regarding environmental variability synthesis report and related activities.	March 2026-February 2027	The updates will likely be disseminated via emails and draft reports to the CSC liaison group and the Commission.

Task	Timing	Comments
Participate in the 2026 PICES Annual Meeting in Nanaimo, BC.	October 2026	CSC members will participate in relevant symposia at the 2026 PICES meeting.
Review of 2026/2027 panel/committee work plans.	Fall 2026	Examine for new/emerging tasks where CSC support is requested, do preliminary prioritization for CSC workload.
Liaison meeting	Fall 2026 (before October Commission meeting)	Meeting to provide an update on the synthesis report and discuss other CSC assignments as appropriate.
Fall commissioner meeting	October 2026	Report out to commissioners on the progress of the synthesis report and other CSC tasks.
Provide the CSC Liaison Group and/or Commission drafts of the environmental variability synthesis report and receive feedback on suggested edits or inclusions.	January – February 2027	The updates will likely be disseminated via emails, draft reports and meetings with the CSC liaison group and the Commission.
Report out on CSC participation at the 2026 PICES Annual Meeting.	January – February 2027	The updates will likely be disseminated via emails, draft reports and meetings with the CSC liaison group and the Commission.
Draft 2027/28 workplan.	January 2027	Seek input from Liaison Group as it is drafted.
Deliver annual CSC report to commission, with a focus on key outcomes and insights from the synthesis report.	February 2027	Seek approval of 2027/28 workplan.

Proposed activities beyond this cycle:

The CSC emphasizes that the principal charge from 2020 to help confront the impacts of environmental change is a multi-year endeavor as is the more recent assignment focused on GSI and the PSC. The CSC is a small 4-person committee (plus PSC Secretariat staff) whose members have commitments beyond CSC obligations. The CSC's charges to understand assessment and management in the context of environmental variability, and explore standards and guidelines for the use of GSI, are complex and far-reaching and have been recognized as such for decades.

Development of the 2027/2028 work plan will be initiated at the Fall 2026 meeting with the Liaison Group.

Other issues will likely be presented in workplans in October 2026, from which the CSC and Liaison Group will develop priorities and the next CSC workplan.

Obstacles to Completing above Bi-lateral Tasks:

The most likely obstacle to completing the above tasks is competing priorities both within the CSC and within the organizations individual members work in. This workplan has been scoped to minimize the potential for competing priorities to impact the completion of assigned CSC tasks.

Outline of Other Panel / Committee Tasks or Emerging Issues: There were no other tasks or emerging issues for the CSC identified in 2026/27 work plans from other PSC bodies. The CSC notes that the CTC has flagged the potential for requesting support from the CSC in subsequent years as they continue to advance their ambitious R&D efforts to develop new analytical frameworks to support Chapter 3 obligations under the treaty.

Potential Issues for Commissioners:

None identified for this cycle.

Potential Issues for Committee on Scientific Cooperation:

The CSC notes that the southern Coho Technical Committee has organized, with assistance from the CSC and the PSC Secretariat and other interested PSC family members, a regular seminar series via webinar to continue educational opportunities stemming from the May 2021 workshop regarding environmental variability and implications for salmon. The CSC has dedicated one member to remain in contact with the steering committee. Through January 2026, approximately two dozen engagements or workshops have been held on various topics related to the workshop theme.

Proposed Meeting Dates and Draft Agendas:

The CSC will meet approximately bi-monthly via webinar from September 2026 – February 2027 to complete the environmental change synthesis report, other assignments and the next workplan. These meetings will require attendance from the four national CSC members (Connors, Carlile, Freshwater and Beckman), plus ex officio members John Field and Catherine Michielsens from the PSC Secretariat. These meetings will last 1-2 hours, and all will be conducted remotely. Additionally, these 6 members will meet with the 4-member Liaison Group (Thomson, Auger, Klumph and Farlinger) this spring, fall and winter via webinar.

Status of Technical or Annual Reports:

The PSC Special Report entitled “Assessment and management frameworks of the Pacific Salmon Treaty and their robustness to environmental change” was published in May of 2023.

Comments: N/A

Report of the Standing Committee on Finance and Administration

February 12, 2026

The Standing Committee on Finance and Administration met virtually on October 10 and December 18, 2025, and by hybrid mode on October 22, 2025, January 15, 2026 and February 10, 2026. The Committee addressed several issues and made recommendations for the Commission's consideration as noted below.

Cost-control measures for Secretariat operations

At the February 11, 2025 Finance and Administration (F&A) Committee meeting, the Parties directed the Secretariat to prepare a risk analysis of cost-control measures over the next two fiscal years.

The Committee reviewed the Secretariat-prepared cost control measures analysis ahead of its October 2025 meetings, with the view of providing the feedback needed by the Secretariat to prepare the budget proposal for FY 2026/2027 and the forecast budgets for subsequent years.

The Committee recommended that the Secretariat proceed with the implementation of certain cost control measures, including:

- Reduction of projected overtime costs to be realized through operational efficiencies in data management, and efficiencies at the Mission hydroacoustics site via recent upgrades;
- Removing projected rental costs for supplementary audio-visual and ethernet equipment from the proposed budget;
- Eliminating certain contractual services costs, including those related to preparations for the D104 GSI workshop, database consulting costs, and others, as outlined in the F&A briefing book distributed in December 2025.

Budget proposal for FY2026/2027

The Committee reviewed the proposed budget for FY 2026/2027 as amended on February 9, 2026 (Attachment I), which incorporated the cost control measures recommended by the Committee.

The Committee requested that current and future budget proposals present costs related to Chapter update meetings, as well as any special contributions required to offset them, as separate line items in the budget.

As in prior years, the Committee agreed to a budget presentation that included annual contributions from the Parties calculated such that the cumulative deficit/surplus at the end of the fiscal year would be NIL. The Committee agreed to include a footnote to the budget schedule that addressed the mechanism through which Canada would process its dues, with the understanding that the final amount contributed from each Party will be equal for each fiscal year.

The Committee emphasized the importance of controlling cost increases in the Secretariat's budget over the coming years, in light of the current economic environment. The Committee encouraged the Secretariat to perform ongoing cost control risk analyses and maximize operational efficiencies.

Accordingly, the Committee recommends that the Commission adopt the proposed budget for FY2026/2027 as shown in Attachment I.

Mission Hydroacoustics bank remediation and dock implementation project (the Project)

The Committee received updates from Secretariat staff on the Project's progress. The Committee understood that the Project became operational in June 2025, and was completed on time within budget.

The Committee understood that a final accounting of costs was underway, and that the Secretariat was expected to submit funding invoices to the Parties (for residual unfunded costs) by March 31, 2026.

Test Fishing

Test fishing finances remained a significant issue for the Parties. Despite a reasonably abundant sockeye return in 2025, the number of test fish captured and sold has not been sufficient to recover test fishing costs.

The Parties have made supplementary financial contributions to the Test Fishing Revolving Fund (TFRF) to help offset the test fishing costs.

The Committee recognized that test fisheries represented a significant cost to the Parties in the Fraser River assessment process, and advocated for the adoption of a cost/benefit approach to determining the scope and length of the test fishing program in any given year. The Secretariat is conveying this message to the Fraser River Panel as the panel plans annual test fishing regimes.

The Committee understood that ahead of the 2026 season, the Parties will be invoiced by the PSC Secretariat in order to replenish the TFRF, in a manner consistent with the Test Fishing Regulations adopted in February 2022:

- Canada: 50% of the test fishing deficit incurred in the 2025 season, and
- U.S.A: 50% of the projected 2025 deficit, as determined from the test fishing schedule agreed upon by the Fraser River Panel (FRP) using the adopted run size as of February 2026.

PSC Chapter Updates Meetings

The Committee understood that certain PSC Chapter updates meetings will take place as early as Fall 2026. The Committee agreed to continue to work with the PSC Secretariat and National Correspondents to develop the Chapter updates meeting schedule and to identify cost effective meeting locations.

TABLE I

PACIFIC SALMON COMMISSION

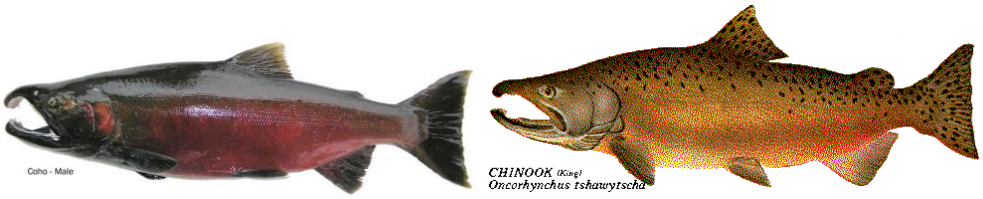
FORECAST BUDGETS
(February 9 2026)

	Forecast results 2025/2026	Proposed Budget 2026/2027	Forecast Budget 2027/2028	Forecast Budget 2028/2029
1 INCOME	(pink)	(Adams)	(pink)	(none)
A. Contribution from Canada (Notes 1, 2)	2,543,920	2,664,793	2,682,336	2,644,683
B. Special contribution pension CA (Note 3)	146,100	146,100	146,100	146,100
C. Special contribution - extraordinary meetings Canada	-	10,000	76,250	-
D. Contribution from U.S.A.	2,543,920	2,664,793	2,682,336	2,644,683
E. Special contribution pension U.S.A. (Note 3)	146,100	146,100	146,100	146,100
F. Special contribution - extraordinary meetings U.S.A.	-	10,000	76,250	-
Sub total	5,380,040	5,641,786	5,809,372	5,581,566
G. Interest	75,000	75,000	75,000	75,000
H. Other income	643,000	625,000	625,000	625,000
I. Carry-over from previous fiscal year	0	0	0	0
Total Income	6,098,040	6,341,786	6,509,372	6,281,566
2 EXPENDITURES				
A. 1. Permanent Salaries and Benefits	4,043,273	4,221,026	4,266,701	4,335,193
2. Unfunded pension liability payments (Note 3)	292,200	292,200	292,200	292,200
3. Temporary Salaries and Benefits	306,194	323,494	310,376	221,968
4. Total Salaries and Benefits	4,641,667	4,836,720	4,869,277	4,849,361
B. Travel	194,848	190,483	188,295	185,684
C. Rents, Communications, Utilities	168,753	199,650	204,560	205,420
D. Contractual Services	789,012	814,073	809,735	764,221
E. Supplies and Materials	80,760	57,860	62,005	53,880
F. Equipment	223,000	223,000	223,000	223,000
G. Total Expenditures before extraordinary meetings	6,098,040	6,321,786	6,356,872	6,281,566
H. Extraordinary meeting expenses	-	20,000	152,500	-
Total Expenditures	6,098,040	6,341,786	6,509,372	6,281,566
3 BALANCE (DEFICIT)	0	0	0	0
Carry-over generated (expended) in the year		$0	$0	$0

Note 1
For presentation purposes, the Parties' contributions are shown as the amounts required to generate a cumulative surplus/deficit of NIL at the end of each fiscal year.

Note 2
Canada's commitment is limited to $1,879,636 (historical contribution), plus 50% of the deficit for the respective fiscal year, as forecasted each December of that fiscal year, and calculated based on a notional contribution from the U.S. of $1,879,636.

Note 3
The unfunded pension liability payments are derived from recent actuarial valuation performed as of January 1, 2023. The amount shown is comprised of a cash payment from the U.S. equal to the annual pension liability amortization amount outlined in the valuation document ($146,100), matched by an equal amount amortized from Canada’s advance payment from FY 2020/2021.



PSC Selective Fishery Evaluation Comittee

SELECTIVE FISHERY EVALUATION COMMITTEE
PROGRESS REPORT TO COMMISSION
February 2026

The SFEC met virtually with an in-person option in Olympia, WA in November 2025 to review 2026 Mass Marking (MM) and Mark Selective Fishery (MSF) proposals.

The planned Mass Marking for 2026 included:

- Coho proposals included a region-wide total of approximately 37.7 million MM fish, an increase of 1.3 million fish from 2025.
- Chinook proposals included approximately 136.5 million MM fish, a decrease of approximately 5.3 million from 2025, mostly due to decreases in Southeast Alaska, Willamette Spring, and Columbia River Fall.

Agency	Coho (in millions)		Chinook (in millions)	
	2025	2026	2025	2026
ADF&G			2.8	1.1
CDFO	3.7	3.7	11.5	11.1
USFWS	1.5	1.6	27.8	27.8
WDFW/Tribes	23.7	24.9	72.1	71.3
ODFW/Tribes	7.5	7.5	26.7	25.2
Total	**36.4**	**37.7**	**141.8**	**136.5**

- 2025 and 2026 estimates include U.S. hatchery production to increase Southern Resident Killer Whale prey.
- Canada is continuing to explore the potential for new MM and MSF opportunities.
- In the U.S., Chinook and Coho DIT groups are limited to Puget Sound, the Washington Coast, and the Columbia River. WDFW and NWIFC are the agencies tagging DIT groups. In Canada, the only DIT program which began tagging in 2024, is on Big Qualicum Chinook in the Strait of Georgia.
- AutoFish trailers continue to be added in the U.S. to allow increased and more efficient marking and tagging with lower tag-loss rates.

Planned MSFs for 2026 include 32 proposals for Coho fisheries and 49 for Chinook fisheries:

- The Coho MSF proposals for 2026 one less than proposed for 2025. There are no new Coho MSF proposals.
- The Chinook MSF proposals for 2026 is one more than for 2025. The additional IDFG proposal is a sport Chinook MSF within the Snake River basin that has previously been proposed (2019) and occurred in 2025 (prior to that was in 2019). There are no new Chinook MSF proposals.

Agency	Coho		Chinook	
	2025	2026	2025	2026
ADF&G	0	0	0	0
CDFO	9	8	5	5
WDFW	14	15	30	30
ODFW	7	7	5	5
ODFW/WDFW	3	3	6	6
IDFG	0	0	0	1
Lummi Nation	0	0	1	1
Nisqually Indian Tribe	0	0	1	1
Total	**33**	**32**	**48**	**49**

Key points for the Commissioners and obstacles for completing bilateral tasks:

New and Emerging

- The 2004 PSC MOU concerning MM and MSF is being reviewed given adopted CYER working group recommendations for Chinook and reporting protocols for MSF regulations and data.
- SFEC is documenting current postseason reporting processes. The SFEC steering committee (CTC, CoTC, Data Sharing, and SFEC co-chairs) will be engaged in this review.
- The single index tags (SIT) methods used by the CTC to produce CYER estimates for the unmarked cohort component (of Chinook) requires estimates of kept and released catch by mark status *for the entire time/area encapsulated within an ERA-level fishery strata where MSFs occur*. Current MSF proposal evaluations ask only about data collected within the MSF; however, additional data may be required to properly estimate marked-release and unmarked-kept rates at the ERA-fishery level if the MSF only constitutes a portion of the entire time/area defined for the ERA-level fishery. Consequently, evaluation of MSF proposals may need to be modified such that they consider the availability of data necessary to support the whole CYER estimation process, not just those data collected from the MSF itself.
- MSF Regulations Database, which is funded by the MSF fund through 2026, significant progress has been made but work needs to continue in order to line up regulations with RMIS data.
- Within the lower Columbia River, OR/WA have proposed and implemented an emerging commercial fishery using seines and pound nets. This fishery is being evaluated to consider if the gears should be legal in WA (they are already legal in OR) and therefore the fisheries are being monitored by 100% observation efforts, limited to six permits, and individual fisher quotas.

- U.S. travel administration issues continue to prevent SFEC members from participating in-person and required those U.S. members who did attend to provide their own travel funding, and impeded completion of workplan tasks.

Ongoing

Mass Marking

- Given the result of the CYER WG evaluation indicating strong performance of SIT methods for Chinook, and the state of CWT recoveries for Coho in mixed-stock fisheries, a joint SFEC-CoTC workgroup has been formed to review the value of double index tagging (DIT) and recoveries for Coho.
- Increased scrutiny of U.S. hatchery programs has resulted in litigation that is affecting hatchery production, including marking and tagging.
- Hiring and retention of staff, particularly for marking, tagging, and sampling activities, continues to be a challenge for all management entities.
- Hatcheries continue to face challenges from climate change including elevated water temperatures, water supplies, and impacts from wildfires.

Mark Selective Fisheries

- Given recent Chinook CYER workgroup recommendations, requirements for tagging and fishery sampling have changed for Chinook. The analytical method developed by the CYER workgroup uses SIT methods to estimate unmarked CYERs. Additionally, the CTC's analytical method requires additional data that were not previously collected in all mark-selective fisheries, namely kept and release estimates by mark-status. Differences in tagging and fishery sampling requirements for Chinook versus Coho may confuse management entities regarding requirements under the PST.
- Complexity of MSF regulations, particularly mark-and-size mixed bag regulations, will challenge evaluation of MSF impacts. We recognize that the mixed fishery adjustment developed by CYER WG addresses the mixed bag complexity for Chinook MSFs but does not address mark-and-size regulations.
- Lack of electronic CWT sampling in some areas results in lack of sampling of tagged and unmarked fish.
- Some Canadian CWT recoveries include inaccurate information regarding the regulation type where the catch occurred.
- There are continuing concerns with monitoring programs for certain MSFs.
- There are times and areas where Chinook and Coho MSFs are being prosecuted but the mark-rates submitted to SFEC are low. The low encounter rates raise concerns around incidental mortality and the benefit of MSF over non-MSF, as well as impacts to non-retention or non-target species. We recommend agencies ensure mark rates are considered when deciding to implement MSFs in these situations.
- Given the recent research on release mortality rates within Canada, SFEC recommends the technical committees review release mortality rates used for Chinook and Coho. These rates are part of the evaluation of mark rates and assessment of MSF impacts.
- Canada continues to explore expansion of Chinook MSFs.

Progress on 2025/26 Annual Work Plan

- The SFEC annual report Review of Mass Marking and Mark-Selective Fishery Activities Proposed to Occur in 2024 was published in November 2025.
- The SFEC annual report Review of Mass Marking and Mark-Selective Fishery Activities Proposed to Occur in 2025 will be published in Spring 2026.
- The SFEC annual report Review of Mass Marking and Mark-Selective Fishery Activities Proposed to Occur in 2026 is expected to be published late spring 2026.
- The 2026 SFEC meeting will be held in Victoria, BC from 17 to 19 November 2026.
- SFEC is prepared to coordinate with CoTC with regards to the Coho DIT program when CoTC has improved representation.
- SFEC is planning to coordinate with the SFEC Steering Committee later this year to document the current post-season data flow as it pertains to the 2004 SFEC MOU to assist in any future data requests or recommendations that may occur.

Taku River Sockeye Salmon
U.S. Proposal for a Subsistence Sockeye Salmon Fishery in 2026
Chapter 1 – Transboundary Rivers
February 11, 2026

The U.S. proposes inclusion of a subsistence sockeye salmon fishery on the Taku River administered by the United States Forest Service for 2026. The federal subsistence fishery will mirror the management measures of the state personal use fishery for the Taku River. Fishery details for 2026 are below.

	State Personal Use	Federal Subsistence
Who Qualifies	Alaska Residents	Southeast Alaska Rural Residents
Fishing Area	Taku Lodge upstream to border	Taku Lodge upstream to border
Sockeye Season Dates	31 days from July 1 – July 31	31 days from July 1 – July 31
Annual Sockeye Limit	10 fish for household of 1/ 20 fish for household of 2+	10 fish for household of 1/ 20 fish for household of 2+
Net Maximum Length	15 Fathoms	15 Fathoms
Mesh Restriction	None	None
Gear Type	Set gillnet	Set gillnet
Net Tending Requirement	Must be present	Must be present
Retention of Chinook	2 fish possession limit	2 fish possession limit
Retention of Coho	6 fish possession limit	6 fish possession limit
Fish Wheel Buffer	100 Yards	100 Yards
Other Harvest Programs	Proxy Harvester	Designated Harvester

Pacific Salmon Commission

Northern Panel and Northern Boundary Technical Committee Report to Bilateral Commissioners

2026 Post Season Meeting, February 9 to 13, 2026

Annual Workplan

The Northern Panel and NBTC met in-section and bilaterally at the Portland Post Season meeting from January 12 to 16, 2026 and at the Vancouver Annual Meeting February 10 to 13, 2026.

The Northern Panel had several notable outcomes from the January session:

Reviewed and accepted the

- Northern Boundary Technical Committee's (NBTC) 2024 Final Boundary Area sockeye salmon run reconstruction.
- Final 2024 pink salmon run reconstruction.
- Preliminary 2025 Boundary Area sockeye salmon run reconstruction.
- Preliminary 2025 pink salmon run reconstruction.
- Cumulative Annual Allowable Harvest sharing agreements.

Received updates and status on

- Fishery reports from both parties for the 2025 season.

CSC Discussion

At the Post Season meeting, most members of the bilateral panel and NBTC attended the presentation provided by the CSC.

Review of Implementation Workplan Tasks and Timelines

Chapter 2 was ratified for implementation in 2019, which led to a Joint Implementation Workplan for the chapter that outlined all required activities and due dates. The implementation plan was updated in October of 2025. To date, all activities have been completed with the Chapter 2 review of performance and associated joint analysis workplan to be wrapped up in March 2026. One over-arching item outstanding in the current version of Chapter 2, paragraph 12 is described as the following: ***The Parties agree to review Annex IV, Chapter 2, a minimum of two years prior to its expiration with a view to renewing it***. *If such renewal is not successfully concluded prior to the expiration date, then overages and underages must be carried forward to the next Chapter period*. The current Panel Chairs interpreted this language to mean that a fulsome review of current Chapter 2 provisions will begin in 2026 and will be informed by the results of the items completed in accordance with the current Annex.

The NBTC provided an update at the January meeting on the three remaining technical tasks: potential for increased genetic resolution of mixed stocks in Northern Boundary fisheries; Skeena River run timing; and quantifying uncertainty in the run reconstruction model. Of these three items, the tasking

around run timing for Skeena River run timing is now the only outstanding item for completion. A small group of the NBTC met bilaterally in February to continue work on this item, and it is expected that this work will be completed by March 31, 2026.

Canadian Presentation on Alternate Approaches for Chapter 2 Implementation

As part of the follow up to the joint analysis of Chapter 2, Canada provided a presentation on "Alternate Approaches for the Implementation of Chapter 2" which included the sharing of a written document for consideration. Discussion on the topic was deferred to the February session to allow the U.S. Northern Panel time to consider the materials and prepare questions and comments. This topic formed the basis of discussion during the executive session of the bilateral panel meeting in February.

Identification of Issues Related to Negotiating the Chapter 2 Agreement

Following instructions from the commission in October 2024, the Northern Panel developed a joint memo on issues related to renewal of Chapter 2. The memo demonstrated that similar issues to the 2019 negotiation will factor for the upcoming negotiation, with the U.S. generally satisfied with the current agreement and Canada seeking updated language that better aligns with their positions and management objectives. The U.S. presented Canada with draft Chapter 2 language that eliminated outdated sections and followed the U.S. position that the current Chapter 2 language is working well.

Chapter 1 - Transboundary Panel Annual Report to Pacific Salmon Commission

February 12, 2026

The Transboundary Panel (Panel), supported by Transboundary Technical Committee (TTC) and Enhancement Sub-Committee (TESC) representatives met bilaterally during the 2025 Post-Season (January 12–15, 2026) and 41st Annual (February 9–13, 2026) meetings of the Pacific Salmon Commission.

2025 Post-Season Meeting: The Panel received post-season reports on 2025 Transboundary Stikine, Taku, and Alsek Rivers salmon runs including: catch from terminal marine and in-river fisheries, escapements, and results from stock assessment projects. As required in Chapter 1 (Paragraph 4), 2025 U.S. and Canadian fishery management measures and associated catch were evaluated to confirm if escapement goals were achieved, and harvest shares not exceeded. In 2026 spawning escapements were achieved for all PST-defined Transboundary Rivers salmon stocks, with the exception of Taku River coho salmon. Both countries fisheries exceeded respective PST allocation for Taku River coho salmon in 2025, however, corrective actions are not required as neither country has exceeded respective allowable catch allocation in 3 of the most recent 5 years. All other fishery catches were maintained within PST harvest share allocations. The Panel received presentations from the TESC on the 2025 Stikine Enhancement Production Plan (SEPP) and Taku Enhancement Production Plan (TEPP) sockeye enhancement program results (fry outplants from 2024 and egg takes in 2025). The final 2023 SEPP was approved by Panel. The TESC also presented results from the 2024 SEPP and the proposed 2026 SEPP and TEPP. The TESC presented a retrospective review of enhanced sockeye salmon production results for the Stikine and Taku Rivers. The Panel received updates on the Stikine River Chinook salmon escapement goal review, development of a Stikine River coho salmon assessment program, ongoing work on the Alsek River Chinook and sockeye salmon assessment project, and a review of the CWT programs for both the Taku and Stikine Rivers. The Panel tasked the ESC to review egg take procedures (specifically measures when delays are experienced when transporting fertilized eggs) and present recommendations to the Panel at the 2026 Annual meeting. Finally, the Panel entered into Chapter 1 renewal discussions with the U.S. presenting a detailed paper of the U.S. proposed changes to Chapter 1.

2026 Pre-Season Meeting: The Panel received 2026 bilateral forecasts for Stikine and Taku Rivers Chinook and sockeye salmon and Taku River coho salmon, in addition to Canadian forecasts for Alsek River Chinook and sockeye salmon. In conjunction with the forecasts, the Panel received proposed management actions for each party's fisheries which included continuation of extraordinary measures to conserve Stikine River Chinook salmon and continued attention on Taku River Chinook salmon in 2026. The Panel also accepted the TTC's recommendation to not proceed with any lethal assessment fisheries in 2026. The TESC presented protocols on delayed egg transports as part of the Taku and Stikine enhancement programs, and requested further presentation of the (final) protocol to the Panel in January 2027. The Panel received final recommendations from the TESC on proposed SEPP and TEPP in 2026, which were bilaterally approved by the Panel for implementation. Finally, the Panel received an overview of Northern Fund projects relative to the Transboundary Rivers under consideration for 2026. The Panel did not advance Chapter 1 renewal discussions during bilateral sessions, which will require the Panel to maximize bilateral meeting time focused on Chapter renegotiations at future meetings. The Transboundary Panel's next bilateral meeting is scheduled for January 2027.

PSC ANNUAL MEETING
January and February 2026

SOUTHERN PANEL MEETING REPORT

Session Activities:

The US and Canadian Sections of the Southern Panel developed an agenda that enabled bilateral and section time to focus on activities associated with our annual work plans, discussing preliminary issues lists related to chapter renewal discussions, and other related assignments.

Recall that the Bilateral Southern Panel developed some preliminary themes (as presented to Commissioners in January 2025) relating to renewal of Chapter 5 and Chapter 6, to help identify elements of the chapters that we would like to focus on in chapter renewal discussions:

Chapter 5 Coho – Themes

- **Fishery Objectives** for Southern Coho management Plan – Maximum Sustainable Harvest (MSH – maintain genetic and ecological diversity of Coho) to sustain healthy fisheries for both Parties
- **Methods** to address environmental change in Coho management
- **Improve our information base available** to support coho management
- **Capacity and resources** to implement all relevant provisions of the Chapter (people, funding and time to do the work necessary)
- **Emerging Issues** with Coho Management

Chapter 6 Chum – Themes

- **Fishery Objectives** for Inside Southern Chum/Fraser Chum
- **Methods** to address environmental change in Chum management
- **Improve our information base available** to support Chum management (ChumGem and other management tools)
- **Capacity and resources** to implement all relevant provisions of the Chapter (people, funding and time)
- **Emerging Issues** with Chum Management

- At the January 2026 meeting, the U.S. Southern Panel sent the Canadian section more detailed input on the above list of themes, to help start discussions on chapter renewal.
- This week at the February 2026 meeting in bilateral sessions, the Canadian and U.S. sections discussed the U.S. issues list.

Other Bilateral Southern Panel activities:

- We received an update on the Coho TC's electronic 'Periodic Report', with a new access link provided on the Southern Panel SharePoint site.
- Exchanged position papers on Fraser Chum in-season management from 2024 and 2025.
- Reviewed the 2024 Coho Exploitation Rate (ER) Annual Report
- Developed priorities for Endowment Fund proposals for 2026

Update from the Coho Technical Committee

- The Coho TC presented updates and provided the latest link to the electronic, multi-year "Periodic Report"
- Completed and presented the 2024 Coho Annual Summary ER Report (ER report is preliminary).
- Southern Endowment Fund (SEF) 2026 priorities and 2025 project updates (at time of this report out there was no section or bilateral discussion)
- Planning for CoWG meeting agenda items and preparing technical information to support the meeting

Update from Chum Technical Committee

- Provided an update on progress for the SEF funded ChumGEM project to finalize run reconstruction model for Southern BC and Washington State Chum
- Provided updated 2026 SEF priorities to the Southern Panel
- Provided an informational briefing on the Fraser Chum in-season run size estimation process based on Johnstone Strait and Albion test fisheries.

Preparation for Future Meetings

- Finally, the bilateral Panel worked on a schedule for upcoming meetings, including the timing of the manager-to-manager information exchange for a virtual meeting in mid-March and the Coho Working Group and Coho Technical Committee.

- We plan to have virtual meetings as needed to continue to make stepwise progress on discussing priority topics for chapter renewal.

Fraser River Panel Work Plan progress

Pacific Salmon Commission 2026 Annual Meeting

Fraser River Panel Chair, Mickey Agha (United States of America)
Fraser River Panel Vice-Chair, Adam Keizer (Canada)

The Fraser River Panel submits to the Pacific Salmon Commission (PSC) our report on Work Plan progress. Highlights of the Work Plan (Appendix A) include:

- Implementation of Chapter 4 of the Pacific Salmon Treaty as documented in the Fraser River Panel Management Plan;
- Proposed meeting dates of the Fraser River Panel; and
- Special issues the Panel will address

Implementation of Chapter 4

The Fraser River Panel adopted the 2025 Fraser River Panel Management Plan (Management Plan) as per the Pacific Salmon Treaty (PST), Annex IV, Chapter 4, paragraph 5, and will commence drafting the 2026 Management Plan in spring 2026.

The Fraser River Panel Management Plan contains a description of 2025 bilateral management objectives and key pre-season information regarding run size forecasts and escapement plans. The Management Plan also documents the Panel's bilateral pre-season decisions about test fishing plans, fishing plans, and in-season decision rules, and serves as a post-season record of fishery outcomes.

2025 Post Season

Preliminary post-season catch and exploitation rates, relative to the established limits, are described in the 2025 Management Plan and summarized below.

- Fisheries impacts were less than the Allowable Exploitation Rate for Early Stuart Sockeye.
- Fisheries impacts were less than the Allowable Exploitation Rate for Early Summer Sockeye.
- Fisheries impacts were less than the Allowable Exploitation Rate for Summer Sockeye.
- Fisheries impacts were greater than the Allowable Exploitation Rate for Late Sockeye.
- Fisheries impacts were less than the Allowable Exploitation Rate for Pink.

Escapement estimates, relative to the established targets, are described in the 2025 Management Plan and summarized below. Early Summer escapement was near the long-term average, whereas Early Stuart, Summer, and Late escapement was below the long-term average.

- Early Stuart Sockeye spawning escapement was below the end-of-season spawning escapement target.
- Early Summer Sockeye spawning escapement was above the end-of-season spawning escapement target.

- Summer Sockeye spawning escapement was above the end-of-season spawning escapement target.
- Late Sockeye spawning escapement was below the end-of-season spawning escapement target.
- Pink spawning escapement was above the end-of-season spawning escapement target.

The 2026 Management Plan will begin to be drafted at the April meeting of the Fraser River Panel. The first pre-season input, the run size forecast for Fraser Sockeye and Pink, was delivered at the February meeting.

2026 Forecast

The median forecast for the total Fraser Sockeye run size is 7,743,000 fish, which is a 51 per cent decrease from the 30-year cycle line average run size (15,800,000 fish). There is a one in ten chance that the actual number of returning Sockeye will be at or below 1,953,000 fish, and there is a one in ten chance that the actual number of returning Sockeye will be at or larger than 30,600,000 fish. The forecasts for the four different Stock Management Groups are described in Table 1.

Table 1. Fraser River Sockeye Salmon forecast. The first column reports median (50% probability) forecasted run size by Stock Management Group. The forecasted run size for the 10th and 90th percentiles is also reported.

Stock Management Group	Median (p50)	10th percentile (p10)	90th percentile (p90)
Early Stuart	63,000	17,000	228,000
Early Summer	1,164,000	318,000	3,211,000
Summer	4,305,000	1,264,000	16,475,000
Late Run	2,212,000	354,000	10,686,000

Key forecast parameters of note that will inform management include:

- The Summer MU is projected to be nearly double the Late MU on the dominant cycle line. Chilko and Quesnel are individually forecasted to be larger than the Late Shuswap at the median forecast.
- The previous dominant cycle line (2022) returned below expectations between the p25 and p50 largely due to over-forecasting Late Shuswap.
- Brood for the 2026 return comes from the lowest return on record for the dominant cycle line in 2022.
- Marine conditions nearshore are in a mildly unfavourable state, but the PDO indicates good conditions persisting offshore.

Proposed meeting dates of the Fraser River Panel

No changes are proposed to the meeting schedule as presented to the Commission in October and outlined in the Work Plan. The next meeting of the Fraser River Panel will occur in April to discuss pre-season planning.

Special issues the Panel will address

1. *The Panel will continue discussions on methods for determining allowable impacts on non-target stocks and species, and necessary conservation actions, in Panel Area fisheries. This will include discussions of small but acceptable harvest on sockeye stock components with little or no international TAC during sockeye directed fisheries.*

Ongoing.
Pursuant to Chapter 4, paragraph 11, the Fraser River Panel shall manage its fisheries *to ensure that the conservation needs and management requirements for other salmon species and other sockeye and pink salmon stocks are taken into account*. Prior to each season the National Sections have identified stocks and species where a conservation concern exists that is relevant to Fraser River Sockeye and Pink salmon management.

With respect to Fraser Sockeye and Pink stocks of concern, the National Sections will attempt to document a pre-season plan that identifies fishery planning scenarios where parties agree on scenario-specific "small but acceptable" Sockeye mortality by Stock Management Group. The Management Plan serves this purpose. The 2026 Management Plan will note:

> Given the primary objective of obtaining spawning escapement goals by stock or Stock Management Group, the Fraser River Panel, to the extent practical, shall strive to concentrate harvest on the management group (or groups) that have the most harvestable surplus. It is understood that a small but acceptable (SBA) rate of incidental harvest on one or more overlapping management groups, with little or no TAC, may occur. Should harvestable surplus materialize in season, both National Sections of the Fraser River Panel agree to have discussions around SBA parameters and associated PST-guided notification process in-season.

Longterm resolution of regarding "small be acceptable" mostly likely will occur through Annex renewal.

2. *The Panel will advance bilateral Indigenous relationships to help with fisheries planning and negotiations and provide time in agendas during pre-season and in-season meetings to have relevant updates.*

Ongoing.
The Panel has been supportive of formalizing bilateral Indigenous relationships, most recently in the form of the First Peoples Salmon Caucus (FPSC).

3. *The Panel will identify and track issues for Chapter 4 renegotiations.*

Ongoing.
In-camera submission to Commissioners in January 2025 was completed as requested.

4. *Canada will provide an overview of the model/method underlying the spawning escapement plan, as well as stock specific spawning requirements used for planning of ESSR or SSFSC fisheries.*

Completed.
Canada provided a memorandum that describes the process used for implementing SSFSC fisheries. Annually Canada provides a memorandum describing the spawning escapement plan, and further technical conversation occurred and occur at the Fraser River Technical Committee.

5. *Canada will provide an overview of the roles & responsibilities of the Fraser Salmon Management Board (FSMB).*

Completed.
Canada provided an overview of the roles and responsibilities of the Fraser Samon Management Board (FSMB) at the January 2026 meeting of the Fraser River Panel.

6. *The Panel will review the current test fishing policy to ensure the current directions for taking pay fish remain viable options pre-season and in-season given the management constraints.*

Ongoing.
The FPR continues to reference the Pacific Salmon Commission Test Fishing Policy (2021) to inform pay fish opportunities for the 2026 season.

7. *The Panel and Technical Committee will review the impact of the seal deterrent system on test fishing catches.*

Ongoing.
The FRP anticipates receiving a presentation about the impact of the seal deterrent system on test fishing catches during the FRP's June 2026 meeting.

8. *The Panel and Technical Committee will continue to review the work to improve species composition methods, both at Mission and at Qualark. Thus far, year two of a four-year project has been completed.*

Ongoing.
Commencing year three of a four year project.

9. *The Panel and Technical Committee will review methods to generate 19-day average temperatures prior to in-season data being available. They will also review different pMA selection methods based on recommended pDBE values that avoid large fluctuations in management implications.*

Ongoing.
The FRP and FRTC reviewed the realized pDBE values for the 2025 season, and was informed of pending peer-reviewed work to evaluate alternative pDBE and pMA methodologies. This work is expected to be available to the FRP for the 2027 season.

10. *The Technical Committee will review different methods to generate time series of fish condition and evaluate if they can be used in quantitative estimates of pDBEs.*

Ongoing.
The FRTC will complete this work over 2026-27 with the intention of integrating the data, where possible, into the peer-review process referenced in item (9) of this document.

11. *The Panel and Technical Committee will review and update the FRP/FRTC/Secretariat Roles & Responsibilities document ahead of the 2026 season.*

Ongoing.
The FRP and FRTC will review and update, if necessary, the Roles and Responsibilities document during the 2026 meeting of the FRP.

12. *In advance of the 2026-27 work plan development, the Secretariat and FRTC shall identify their research priorities, and Panel shall identify policy priorities. This will be documented in a strategic plan that documents how we are fulfilling the goals of the Treaty and Chapter 4.*

Completed.
The FRP endorsed the 2026-27 strategic plan with a stated objective of:

> "To support effective implementation and compliance with Chapter 4 of the Pacific Salmon Treaty by generating robust scientific data, improving assessment and decision-making tools, and facilitating bilateral cooperation.
>
> The Fraser River Panel and Technical Committee will pursue the following actions to achieve this objective:
>
> i. Support the effective use of scientific information for Fraser River sockeye and pink salmon management
> ii. Promote scientific excellence and evidence-based management practice
> iii. Strengthen collaboration to improve monitoring, assessment and management advice
> iv. Ensure operations and technical review processes align with international best practices"

The FRP and FRTC will apply this strategic plan to inform the FRP's Southern Endowment Fund priorities (spring 2026) and the Annual Work Plan (autumn 2026), and then reevaluate the strategic plan in January 2027 at the post-season meeting.

Recommendations to Commissioners

1. The Panel requests that, pursuant to Chapter 4, paragraph 6, the scheduled in-season management meetings shall be held in Richmond, British Columbia unless the Panel mutually decides otherwise.

2. The Panel has reviewed, pursuant to Chapter 4, paragraph 13 (e), the objective report written by the Secretariat regarding the 2025 fishery disagreement that occurred pursuant to Chapter 4, paragraph 13 (d). A bilateral response is within an Annex to this report.
3. Noting Chapter 3, Section D, Rule 17 of the Pacific Commission Salmon Bylaws, the Panel requests that the draft agenda, including all meeting materials, be prepared not less than 5 business days prior to a meeting of the Panel.
4. The Panel has received an update regarding the Chilcotin River landslide and the possibility of future obstructions to salmon migration on the Fraser watershed. The Panel is supportive of objectives to provide safe passage to migrating salmon.
5. The Panel is aware of possible changes to Fraser Pink salmon enumeration that may constrain pre-season and in-season management, the Panel and expresses concern that the implications of these changes have not yet been presented to Panel to inform the 2027 fishery season.
6. The Panel recalls its obligations, pursuant to the Diplomatic Note of August 13, 1985, and notes these obligations to Commissioners. Specifically:

> *The Fraser River Panel shall assume the responsibility to "design and conduct studies to identify and discriminate between races of Fraser River sockeye and pink salmon harvested in the fisheries including specification of samples required from upriver sections of the Fraser River and from sites outside the Area."* (Paragraph A.1.c.)

To fulfill these obligations the Panel requests DNA samples from every Sockeye for which DNA testing identifies Fraser River as the most likely origin (i.e., 1st genetic assignment regardless of probability). This is addition to in-season scale samples from District 104.

Additional restrictions (e.g., 50% or 75% probability thresholds) reduce the sample size available for estimating the relative contributions of Fraser substocks and introduce a bias among those substocks. Sample sizes are already limiting, and biases shall be avoided.

In the absence of more extensive sampling of the District 104 fishery, the data derived from this process provides the best available means to reconstruct Fraser substock abundances. This information is used pursuant to Pacific Salmon Treaty Chapter 4, paragraph 4 to generate abundance forecasts.

Appendix A

2025-26 FRP FRTC
Work Plan_Oct 1, 202

PACIFIC SALMON COMMISSION

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

600 - 1155 ROBSON STREET
VANCOUVER B.C. V6E 1B5
604-684-8081
www.psc.org

MEMO

Date: January 31, 2026

To: Pacific Salmon Commission Secretariat

From: Fraser River Panel Chair Mickey Agha; Fraser River Panel Vice-chair Adam Keizer; Fraser River Panel Canadian Indigenous Co-Chair Marcel Shepert

Re: Fraser River Panel Response to Review of September 2, 2025 Fraser River Panel fisheries proposals, decisions and subsequent consequences

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Context

On September 2, 2025 the Fraser River Panel (Panel) acknowledged objections of the Canadian National Section and approved fisheries in Fraser River Panel Area waters pursuant to Chapter 4, paragraph 13 . As requested by Canada under Chapter 4, paragraph 13(e), the Secretariat provided an objective report on the issues identified.

The Secretariat presented the findings of this report separately to the Fraser River Technical Committee and Fraser River Panel during the Pacific Salmon Commission's (PSC) January 2026 post-season meeting. Based on this report and under the provisions of Chapter 4, the Panel has issued a joint response to the report.

Joint Response

Canada and the U.S. acknowledge the report and the documentation of events. Both Parties are appreciative to the PSC Secretariat for the review of the Panel disagreement that occurred on 2 September 2025. The Panel will take the information and recommendations provided by the Secretariat under advisement and will continue to work towards practical and practicable solutions that fit within the bounds of the Pacific Salmon Treaty. The Panel will build on pre-season modeling and workplans that attempt to seek agreement about "small but acceptable" in the context of the 2026 season.

PACIFIC SALMON COMMISSION
JOINT TECHNICAL COMMITTEE ON DATA SHARING

WORK PLAN 2025-2026 PROGRESS UPDATE
TO THE PSC COMMISSIONERS

The bilateral Technical Committee on Data Sharing (TCDS or Committee) supports the Pacific Salmon Commission by coordinating the content of the Coded-Wire-Tagging and reporting system to be exchanged (see Pacific Salmon Treaty's Memorandum of Understanding, January 28, 1985). The Technical Committee on Data Sharing (TCDS) reports directly to the Pacific Salmon Commissioners.

This committee is responsible for:

- Maintaining and revising the Specifications and Definitions for the Exchange of Coded Wire Tag Data for the North American Pacific Coast (hereafter Specifications).
- Facilitating access and timely exchange of CWT data between the two parties.
- Advising Commissioners as appropriate on: (i) computing hardware, software (including development), and data transmission requirements of the Commission; (ii) compilation and maintenance of databases established by or for the Commission; (iii) policies and procedures for data compilation and dissemination of fishery-related statistics and environmental information; and, (iv) data governance and software development guidelines (e.g. handling external data requests), documenting, and version management)) used to create automated reports and analytical data products.

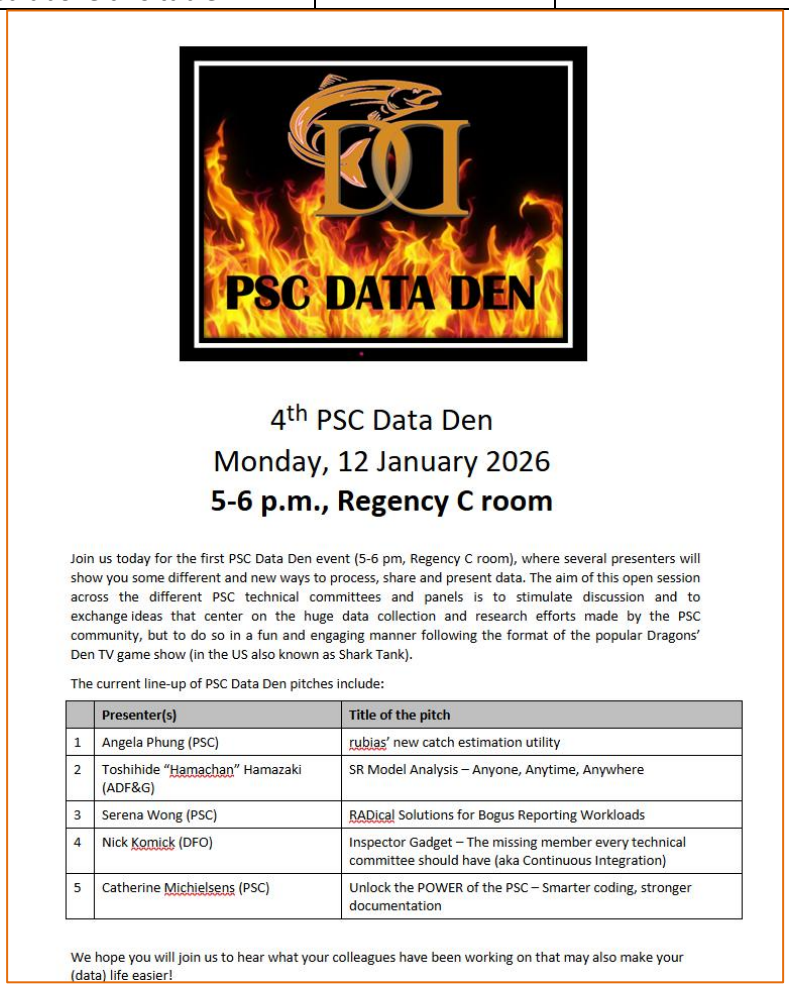
A key goal of the 2025-2026 workplan is to finalize the migration to 5.0 version of the *Specifications and Definitions for the Exchange of Coded Wire Tag Data for the North American Pacific Coast* by April 2026. The TCDS is also continuing to advance the development of a controlled vocabulary document to define all data fields and terms in the data specifications to ensure the accessibility of these data over-time and to maintain quality data in the bilateral systems. Once ready, engage in collaborative scoping and document approaches and methods with other technical committees to refine terms, definitions, and metadata that support proper CWT and related data use. The TCDS continues to assess processes to improve CWT data quality, including incorporating new metadata fields, using automated validation processes, and automated quality checks on data submitted to the bilateral systems.

A summary of 2025 and 2026 tasks and their status are provided below:

Task	When	Status
Present 2025-2026 work plan to Commissioners during their October meeting for approval	October 2025	Completed
Update members on outcome of presentation to Commissioners' during their October 2025 meeting and advance progress on developing the Controlled Vocabulary document.	November 4, 2025 (virtual only)	Completed

Worked on 2026 Data Den		
Meet with CTC and CoTC (and others as possible) to discuss proposed modification and implementation impacts, and timelines based on the draft 5.0 specification. Organize and facilitate a Data Den on the evening of Monday January 12.	January 12, to January 16, 2026	Completed. Met with CTC and CoTC to provide updates and timeline for 5.0 specification's modifications and other tasks. Hosted the 2026 Data Den (see Figure 1 for the Announcement listing the pitches), The event was well attended with about 50 individuals in the audience. Recruited 2 Technical Committee members (Lara Erikson and Dawn Lewis) and 2 Commissioners (Dr Katrina Connors and Mr. Anderson) to serve as judges for the five participants presenting pitches. The winning pitch was PSC Secretariate Serena Wong's Radical Solutions for Bogus Reporting Workloads
TCDS Co-Chairs present 2025-2026 work plan progress update to PSC Commissioners during the 40th Annual Meeting (USA co-chair attending virtually). Meet with other technical committees as possible to conduct outreach and coordination.	February 9, to February 13, 2026	Planned
Full TCDS virtual meeting to review implementation finalized 5.0 version, discussing input received from TCs for 5.1 and 6.0, advance controlled vocabulary. Continue to work on all other workplan items	April 22, 2026 Virtual only	Planned
Finalize 5.0 data specification technical report document for submission to PSC for publication. Review active 5.1 and 6.0 requests and discuss timeline for implementation. Discuss other work items proposed by other committees. Draft 2026-2027 work plan. Work on	May 11-14, 2026	Planned

controlled vocabulary. Propose new and review submitted ideas for future Data Den. Check in on (and continue to work on) all planned tasks as listed above this table.		
Finalize 2026/2027 Work plan. Work on 5.1 and 6.0 proposals Check in on (and continue to work on) all planned tasks as listed above this table.	September 21-24, 2026 (In-person)	Planned



PSC DATA DEN

4th PSC Data Den

Monday, 12 January 2026

5-6 p.m., Regency C room

Join us today for the first PSC Data Den event (5-6 pm, Regency C room), where several presenters will show you some different and new ways to process, share and present data. The aim of this open session across the different PSC technical committees and panels is to stimulate discussion and to exchange ideas that center on the huge data collection and research efforts made by the PSC community, but to do so in a fun and engaging manner following the format of the popular Dragons' Den TV game show (in the US also known as Shark Tank).

The current line-up of PSC Data Den pitches include:

	Presenter(s)	Title of the pitch
1	Angela Phung (PSC)	rubias' new catch estimation utility
2	Toshihide "Hamachan" Hamazaki (ADF&G)	SR Model Analysis – Anyone, Anytime, Anywhere
3	Serena Wong (PSC)	RADical Solutions for Bogus Reporting Workloads
4	Nick Komick (DFO)	Inspector Gadget – The missing member every technical committee should have (aka Continuous Integration)
5	Catherine Michielsens (PSC)	Unlock the POWER of the PSC – Smarter coding, stronger documentation

We hope you will join us to hear what your colleagues have been working on that may also make your (data) life easier!

Figure 1: January 2026 Fourth PSC Data Den announcement with list of presenters and title of their pitch.

Meeting Summary: Chinook Interface Group

2026 Pacific Salmon Commission 41st Annual Meeting

The Chinook Interface Group (CIG) met twice during this week, on February 9, 2026, from 3:00 – 5:00 pm PST and on February 10, 2026, from 3:00 pm – 5:00 pm PST. The following report includes the CIG's recommendations for the Commission's consideration.

CIG Members in Attendance: Phil Anderson, Russ Jones, John McCulloch, McCoy Oatman, Andrew Thomson, Doug Vincent-Lang

Chinook Technical Committee (CTC) Members in Attendance: Milo Adkison, Jon Carey, Ethan Clemons, Sabrina Crowley, Tim Dalton, Dani Evenson, Elisabeth Fox, Tommy Garrison, Lauren Gill, Mike Hawkshaw, Galen Johnson, Nicholas Komick, Jake Kvistad, David Leonard, Scott Marshall, Marianne McClure, Elinor McGrath, Jeff Nichols, Tommy Pontbriand, Teresa Ryan, Mark Sorel, Noel Swain, Antonio Velez-Espino, Charlie Waters, Margarete Walden, Erika Watkins

Pacific Salmon Commission (PSC) Secretariat Staff in Attendance: John Field, Merran Hague, Aimee Liu, Jacqueline Nelitz

Observers in Attendance: Dean Allan, Bill Auger, Kadi Bizyayeva, Joshua Bragg, Craig Bowhay, Anna Classen, Katrina Connors, James Dixon, Sue Farlinger, Grace Ferrara, Cara Fogliato, Rob Jones, Rick Klumph, Ryan Lothrop, Judy Lum, Christine Mallette, Mike Matylewich, Anjum Mutakabbir, Murray Ned, Chuck Parken, Brian Riddell, Robert Roose, Jim Scott, Matthew Sweeting-Woods, Bill Templin

1. Adoption of the agenda

    - Commissioner Anderson requested that the agenda item "*Managing Fisheries in the Southern U.S. Relative to the CYER Limits for the 2026 Season*" be added to the agenda. The item was added as Item 8.

    - The agenda was adopted as amended.

2. CTC Workplan Update

    - The Chinook Technical Committee (CTC) Co-Chairs—Mr. Jon Carey, Mr. David Leonard, Mr. Nicholas Komick, and Dr. Mike Hawkshaw—provided an update on the CTC Workplan (**Attachment 1**). They highlighted revisions indicated by red strike-through text, including adjustments to anticipated timelines for annual reports, which were delayed due to the substantial effort devoted to completion of the 5-Year Review Report. The update also noted that the 5-Year Review Report has now been submitted and included a revised CTC meeting schedule to reflect a proposed Research and Development (R&D) Work Group meeting in July.

    - Commissioner Doug Vincent-Lang asked whether the CTC anticipates any delays in completing Abundance Indices (AIs) or advancing model development work. Mr. Carey responded that AIs remain the CTC's top priority and that, if necessary, report timelines would be deferred to ensure AIs are completed on schedule.

    - Commissioner Thomson noted references to the Calendar Year Exploitation Rate (CYER) work as an ad hoc task within the work plan. Mr. Carey clarified that CYER-related work

appears in several sections of the document and indicated that the CTC has completed most of the CYER implementation requirements.

- Commissioner Thomson asked whether the CTC finds its current workload manageable. Mr. Carey acknowledged that workload levels have been high, particularly due to the 5-Year Review Report and additional CIG tasking. He noted that involvement in R&D model development adds an additional layer of work; however, while demanding, the workload remains manageable at this time.

3. CTC report on paragraph 7(c)(ii) CYER overages in Canadian Individual Stock Based Management (ISBM) fisheries for the Snohomish River

    - Mr. Carey presented the CTC's response memorandum under paragraph 7(c)(ii) (**Attachment 2**).

    - Commissioner Anderson noted that in Figure 1 of the memorandum, the dotted line is characterized as an "agency goal." He clarified that the dotted line represents the low abundance threshold below which extraordinary measures are required and requested that future versions more accurately characterize this reference line. Mr. Carey agreed and indicated that the CTC would revise the description. Commissioner Anderson also expressed appreciation for the expanded heat maps, including analyses across additional geographic areas and time periods, noting that these additions were helpful.

    - Commissioner Vincent-Lang asked whether the CTC examined opportunities to improve data collection to reduce time lags and enable more timely responses to paragraph 7(c) overages. Dr. Hawkshaw responded that more timely provision of coded-wire tag (CWT) data would allow for earlier Exploitation Rate Analysis (ERA) calculations. He noted that the CTC does not currently have a bilateral planning tool for Southern fisheries and that no specific "low-hanging fruit" had been identified by either Party. Mr. Komick added that ongoing R&D work, including development of the Statistical Catch-at-Age (SCA) framework, may help illuminate opportunities for improvement. Mr. Leonard further noted that the combination of a three-year averaging approach and a two-year data lag resulted in an effective five-year delay in being able to evaluate ISBM fishery performance from the 2-year lag in analysis.

    - Commissioner Anderson highlighted the final paragraph of the CTC memorandum, in which the CTC "notes a current lack of bilateral pre-season, in-season, or other management tools for evaluating ISBM fisheries" and offers assistance in exploring the potential development of additional analytical tools to support bilateral management of Salish Sea fisheries and stocks. He expressed appreciation for the CTC's offer and underscored the availability of CTC expertise to support such efforts. Commissioner Thomson added his acknowledgement of this offer of assistance.

    - Commissioner Thomson requested that future CTC memoranda include an executive summary and bullet-pointed conclusions at the beginning of the document to enhance clarity.

    - Mr. Jim Scott presented a U.S.-draft proposal for a *Working Group on Improved Management Tools for Southern British Columbia and Washington Chinook Salmon Fisheries* (**Attachment 3**). He noted that the proposal builds on prior CIG discussions

and is intended to place concrete ideas before the CIG for consideration. The proposed work group would report to the CIG and would aim to develop improved management tools in time to inform planning for the 2028 season.

- Commissioner Anderson noted that the draft document currently lists only U.S. participants and emphasized that the proposed Working Group would be bilateral in nature, requiring identification of Canadian members. While recognizing that the proposal was newly introduced, he stressed the urgency of initiating this work and expressed hope that a decision could be reached soon to allow the group to begin work toward the stated timeline.

- Commissioner Thomson thanked the U.S. Section for the proposal and requested additional time for Canada to review and discuss the document internally. He noted that Canada has previously expressed openness to exploring new tools and indicated that Canada would aim to respond later in the week following internal discussions.

4. Canadian Response to U.S. Questions related to Snohomish Chinook

    - Commissioner Thomson provided initial verbal responses to the U.S. document titled *Additional Questions Concerning Canada's Paragraph 7(c)(i) Response* (**Attachment 4**) and indicated that written responses could also be provided.

        i. In response to the first question, Commissioner Thomson stated that Canada has reviewed effort levels in the Strait of Georgia and Juan de Fuca and found them to have remained relatively constant. He noted that increased Chinook encounters are not unexpected given the recovery of many Chinook stocks and corresponding increases in fishery releases. He added that additional detail from the U.S. regarding the first question would be helpful.
        ii. In response to the second question, Commissioner Thomson confirmed that Canada agrees with the 0.242 CYER estimate, as corrected for the number of tagged fish released.
        iii. In response to the third question, Commissioner Thomson noted that domestic management measures implemented in 2024 appear promising, as does the 2025 terminal escapement return. He stated that the Integrated Fisheries Management Plan (IFMP) for 2026 is scheduled for release on February 20 and will be shared with the U.S. upon release.

    - Commissioner Anderson expressed appreciation for the initial responses and indicated that a written response from Canada would be helpful. Commissioner Thomson replied that a written response would be provided later this week. Commissioner Anderson noted that the U.S. would endeavor to provide additional detail regarding the first question.

    - Commissioner Anderson reaffirmed the U.S. concerns with the Snohomish and other Puget Sound Chinook stocks particularly in light of the recent flooding in the Puget Sound region and the potential impacts of scouring on redds and survival.

5. Discussion of Chapter 3 updates, including consideration of additional meetings between February and October 2026

    - Commissioner Thomson noted that further discussion of additional meetings would be required at both the Finance and Administration (F&A) Committee and Commission

levels. Commissioner Anderson emphasized that the CIG should be mindful not to set direction beyond its mandate without Commission input. He underscored the importance of securing bilateral agreement on dates and locations for proposed August and November 2026 meetings. He noted that the U.S. would prefer that one of the meetings be held in the United States, though either meeting could serve that purpose, and suggested Sequim as a cost-effective option.

- Commissioner Thomson expressed general support for holding additional meetings and agreed that cost considerations would be important. He also emphasized the need to clearly delineate the respective roles of the CIG and the Commission. He reported that discussions within the F&A Committee reflected general support for two additional meetings during the current calendar year, tentatively proposed for the last week of August and either the last week of November or first week of December. Meeting locations remain to be determined. Canada confirmed that an additional $300,000 will be transferred to the Secretariat to support negotiation-related costs associated with extraordinary meetings. Commissioner Anderson confirmed that the proposed dates align with the U.S. understanding. He noted that further discussion is needed to determine which meeting would be held in Sequim (7 Cedars) and reiterated the importance of advance agenda planning in coordination with agencies.

- Commissioner Vincent-Lang emphasized the need to finalize agenda planning for the extraordinary meetings because we would not have another scheduled CIG meeting prior to the October Commission meeting, and currently one extraordinary meeting is scheduled before then. Commissioner Anderson and Commissioner Thomson suggested that the question and discussion was appropriate at the Commission table.

- <u>CIG recommends engaging in dialogue with the Commission regarding agenda planning for the extraordinary meetings in advance of the October 2026 Commission meeting.</u>

6. R&D update and discussion of a proposed communications plan

    - Dr. Milo Adkison and Mr. Nick Komick presented the R&D Update to the CIG (**Attachment 6**). Dr. Adkison reported that the work group just fixed some bugs in the model and the goal is to have preliminary numbers run by the end of the week. The R&D work group remains on track to provide a robustness analysis comparing the new SCA model and the current CTC modeling process by May. He noted that running the SCA model using actual PSC data will occur later, likely in late summer or early fall. The R&D work group intends to continue providing regular updates.

    - Commissioner Anderson recommended that R&D updates be provided to the National Correspondents (NCs) for distribution to their respective delegations, rather than solely to the CIG. He suggested that Mr. Komick coordinate with Canadian representatives and Dr. Adkison with U.S. representatives to identify the most useful content and level of detail for future updates. Commissioner Thomson encouraged tailoring updates to a broader audience, focusing on overall progress rather than technical detail. Commissioner Vincent-Lang emphasized that the CIG is not interested in day-to-day operational details but should be notified of any significant issues affecting timelines or workload and any unexpected findings. He encouraged the work group to reach out between meetings if guidance is needed.

- Commissioner Thomson initiated discussion on development of a communications plan, noting that if the model proves promising, time will be of the essence. He suggested preparing a common presentation that could be jointly delivered to explain the rationale for adopting a new model and to build trust in the process. Commissioner Anderson agreed that both a communications plan and broad acceptance among management entities – tribal, state, and federal – will be critical. He noted the importance of consistent messaging and suggested targeting development of a communications strategy by the October timeframe, with outreach potentially beginning between October and January.
- Commissioner Vincent-Lang asked whether adoption of the new model would require modifications to existing data programs, such as CWT programs. Dr. Adkison responded that the model was designed to rely on data already collected by agencies. While some datasets are not currently used, and therefore not assembled by the CTC in a single database, no fundamentally new data collection programs are required.

7. Next steps for the 5-Year Review and follow-up questions from the CIG

    - *Recommendation 1.1 (Develop and/or review Attachment I management objectives):* Commissioner Vincent-Lang asked whether the CTC had taken a position on modernizing outdated or undefined escapement goals, noting that several escapement goals in Attachment I are listed as TBD. Mr. Carey responded that the CTC has not undertaken a comprehensive review of outdated goals, which is generally the purview of management entities. Commissioner Vincent-Lang notes that he was concerned with the TBDs may be holding back the current regime and how to manage for the lack of information. Mr. Carey felt that missing or outdated goals are not currently preventing assessment and management of the regime, though the CTC would review any updated goals provided.

    - *Recommendation 1.2 (Review Attachment I coded-wire tag indicator stocks):* Commissioner Vincent-Lang asked whether existing tagging programs are meeting the CTC's needs. Mr. Carey noted that the ERA includes checks for minimum sample sizes and escapement coverage, with triggers to include or exclude data as appropriate. Most stocks regularly meet criteria, though a few wild tagging programs do not consistently meet thresholds. Mr. Komick added that improvements typically originate from management entities.

    - Commissioner Thomson referenced paragraph 7(h) of Chapter 3 of the Pacific Salmon Treaty, which directs the CTC to perform the 5-year review to evaluate the effectiveness of harvest reduction measures identified by the Treaty. He asked whether if within the 5-Year review there is an overall assessment of Chapter 3 effectiveness. Mr. Leonard responded that the Mature Run Equivalent Exploitation Rate (MREER) metric is intended to address this question, though there is no single summary table explicitly evaluating overall performance.

    - *Recommendation 4.3 (Address critical deficiencies in CWT sampling):* Commissioner Vincent-Lang asked whether there is a comprehensive picture of sampling rates across fisheries. Mr. Carey referenced the "stoplight" table in Chapter 4 that qualitatively categorizes sampling rates by fishery, noting that no more detailed summary currently exists. Mr. Komick confirmed that recent updates, including improvements reflected in the Canadian indirect methods CYER report, are incorporated.

- Commissioner Jones inquired about accounting for mark-selective fisheries (MSFs) in the Chinook Model. Mr. Carey clarified that ERA and CYER analyses account for MSFs, but the Chinook Model used to generate AIs does not currently do so. He noted that MSF impacts on Aggregate Abundance-Based Management (AABM) stocks are likely limited and that the R&D work group's efforts, including the SCA model, aim to better account for marked and unmarked fish.

- *Recommendation 4.8 (Consider methods to correct for interactions between CYERs and CWT release group size):* Mr. Komick explained that prior brood-year approaches differ from the CYER method, which aggregates across age classes within a year. This can unintentionally weigh tag rates by age class in ways inconsistent with model assumptions. Mr. Carey added that age-2 fish may appear in fishery catch (numerator) but not yet in escapement (denominator), creating temporary distortions.

- *Recommendation 4.12 (Continue to steer technical analyses towards a paradigm that incorporates uncertainty):* Commissioner Vincent-Lang asked how climate-related variability is addressed. Mr. Carey responded that the recommendation focused more broadly on incorporating statistical uncertainty into assessments rather than specifically addressing climate change.

- *Recommendation 4.14 (Strive for effective and timely communication and collaboration between the PSC Commissioners, the CIG, and the CTC during regular annual tasks and the upcoming negotiation cycle):* Commissioner Vincent-Lang noted the report's recommendation for a more intentional communication system between the CTC, CIG, and Commissioners. Mr. Carey explained that while winter meetings function effectively, the annual cycle can create delays in obtaining guidance, and more structured intersessional communication may be beneficial. Commissioner Anderson noted that the CIG is not currently structured to provide rapid responses to complex questions and suggested exploring process improvements. He proposed initial dialogue between CTC and CIG co-chairs to clarify and potentially simplify questions before broader consideration.

- Commissioner Anderson noted that the US was grappling with what to do with the 5-year report. A lot of work went into it, but it was received later than anticipated (just prior to the January 2026 meeting) and close to two years late. The U.S. requested additional time to review the extensive analysis with a particular focus on what we did achieve and the effectiveness of harvest reduction measures that were taken for AABM and ISBM fisheries. The U.S. proposed to provide at the end of July (before the 1st Bilateral extraordinary meeting): a) suggestions for prioritizing the CTC recommendations from the 5-year review; b) a list of observations and concerns from a conservation and allocation perspective as to whether we achieved harvest reductions and effectiveness of the Treaty as intended. The intent would be to take advantage of what we've learned from the 5-year review and inform a bilateral discussion of next steps.

- Commissioner Thomson indicated that Canada will also provide written comments.

- The CIG recommends providing written comments and observations on the 5-Year Review report by July, in advance of the extraordinary bilateral meeting. The CIG emphasized that this process is intended to reflect on the report, not to require revisions unless additional analyses are requested.

8. Managing Fisheries in the Southern U.S. Relative to the CYER Limits for the 2026 Season

    - Commissioner Anderson raised a potential request regarding management of Southern U.S. (SUS) fisheries relative to CYER limits for the 2026 season. He explained that revisions to the base period data incorporating Canadian Internet Recreational Effort and Catch Reporting Program (iREC) data resulted in changes to Canadian CYERs which in turn affect U.S. CYER limits. The U.S. faces the choice of either compensating for these changes domestically or requesting flexibility to apply the 2024 CYER rate as agreed by the Parties for 2025. He noted that U.S. fisheries are also constrained by domestic Endangered Species Act requirements. Commissioner Anderson indicated that the U.S. may submit a request pursuant to paragraph 7(g) "*that unusual circumstances may arise in the management of ISBM and AABM fisheries. Either Party may ask the Commission for some flexibility in the implementation of this Chapter to avoid undue disruption of fisheries while maintaining the conservation and allocation principles embodied in this Treaty"* The U.S. understands that further iREC refinements may result in further changes to CYER limits and affect future years but prefers to review the Canadian report before considering additional adjustments. The U.S. sought confirmation from Canada that further changes in the iREC estimates would not be introduced into the exploitation rate analysis conducted by the CTC in February 2026.

    - Commissioner Thomson asked whether Canada was being notified that a formal request would be forthcoming. Commissioner Anderson indicated that the matter was not currently on the bilateral agenda and could either be included into the CIG report as a recommendation to the Commission or added at a future Bilateral Commission session. Commissioner Thomson stated that Canada would prefer the matter be listed as a specific agenda item for the Commission, given that not all Canadian Commissioners were present at the CIG meeting.

    - <u>CIG recommends adding an agenda item to the bilateral Commission meeting to address the U.S. proposal for managing U.S. ISBM fisheries relative to the CYER limits for the 2026 season.</u>

9. Discuss CIG forward agenda

    - Commissioner Anderson noted that the CIG should remain flexible in responding to CTC requests for guidance, particularly in circumstances not involving policy decisions. Commissioner Thomson expressed support for maintaining flexibility while also planning for the two extraordinary meetings anticipated in the fall.

    - Commissioner Vincent-Lang noted that the CIG has two primary roles: responding to Commission-directed tasks and addressing issues requiring guidance between meetings, which may necessitate intersessional sessions.

    - The CIG agreed to continue discussions regarding future agenda items, including planning for the extraordinary meetings and maintaining a nimble approach to emerging issues.

10. Summary of Action Items

- CIG recommends engaging in dialogue with the Commission regarding agenda planning for the extraordinary meetings in advance of the October 2026 Commission meeting.
- The CIG recommends providing written comments and observations on the 5-Year Review report by July, in advance of the extraordinary bilateral meeting.
- CIG recommends adding an agenda item to the bilateral Commission meeting to address the U.S. proposal for managing U.S. ISBM fisheries relative to the CYER limits for the 2026 season.
- [Establishment of a work group to improve Salish Sea Chinook management]

PSC Chinook Technical Committee

TO: Pacific Salmon Commission, Chinook Interface Group
FROM: Chinook Technical Committee
DATE: February 4, 2026
SUBJECT: Progress report on 2025-26 Chinook Technical Committee work plan
CC: National Correspondents

CTC Work Plan Tasks Proposed for 2025-2026

1. Legacy Annual Tasks

•	2025 ERA report – *In-progress, anticipated completion in ~~November 2025~~February 2026.*
•	2025 CLB report – *In-progress, anticipated completion in ~~January 2026~~April 2026.*
•	2026 Chinook ERA – *Planned for completion in February 2026.*
•	2026 Chinook Model calibration – *Planned for completion in March 2026.*
•	2025 C&E report – *Anticipated completion in July 2026.*
•	2026 CLB report – *Anticipated initiation in June 2026.*
•	2026 ERA report – *Anticipated initiation in June 2026.*

2. New Annual Tasks

•	Report stock-specific MSF impacts, starting 2022 – *MSF algorithms have been incorporated into the ERA; stock-specific MSF impacts will continue to be included in the annual ERA reports.*
•	Produce the Commissioner's Summary Report by October 1 annually – *Anticipated completion by October 1.*

•	Summarize Coded Wire Tagging and Recovery and Catch and Escapement Indicator Improvement (C2) programs, starting 2022 – *The C2 project summaries will continue to be included in the annual C&E reports.*
•	Report on incidental mortalities (IMs) – *The CTC will continue to report on IMs in the annual C&E reports.*
•	Report data underlying the hatchery add-on calculations – *The CTC will continue to provide a summary of information used to determine the allowable exclusion or hatchery add-on in the annual C&E reports.*

3. Ad Hoc Tasks

•	Improve efficiencies in annual reporting including continued database development and automating generation of tables and figures where possible to increase the efficiency of report production and reduce the time required for the CTC to meet annual reporting requirements – *In progress; the CTC has formed work groups to address these tasks. A Report Automation Database (RAD) was developed along with an accompanying internally deployed shiny app that automates tables and figures for the C&E report. The CTC continues to expand RAD to automate other annual CTC reports.*
•	Standards for IM data – *In progress; literature review completed in December 2020. Report on the Uncertainty and Variance in Catch and Release Estimates of Chinook Salmon Fisheries completed in March 2022. The CTC is awaiting further direction from the CIG on whether additional work is needed on this task.*
•	Implementation of CYERs – *In progress.* – Develop data standards for the application of CYER as a metric – *In progress.*
•	Conduct CYER review and evaluate alternative metrics for ISBM fisheries, per paragraph 5(e). – *Deferred per February 2022 CIG recommendation: contingent upon full implementation of the CYER metric and proposal of alternative metrics.*
•	Escapement goals presented for review and acceptance will be evaluated by the CTC – *The CTC will be available to review any escapement goals that are brought forward.*
•	Five-year review, per paragraph 7(h): – Complete preparation of report –*Complete, provided to Commission in advance of the January 2026 postseason meeting.* ~~*In progress; The CIG agreed to extend the deadline for the 5-Year Review until October 2025. Additional delays may occur due to a request for guidance on how to report AABM fishery performance.*~~
•	R&D work group - investigate alternative modeling approaches and methodologies for the improvement of Chinook salmon management tools that could be used in the next PST Agreement, providing regular updates to the CTC and Commission, with plans to have vetted results available in time to be useful to support Chinook chapter updates. The R&D WG Vision Statement can be found in Appendix II.

•	As necessary based on the criteria specified in paragraphs 7(b) & 7(c), evaluate performance and recommend improvements to management tools for AABM or ISBM fisheries per paragraphs 7(b)(ii) & 7(c)(ii).
•	Update the model performance comparison between the PSC Chinook Model and Method 4.3 (multivariate model) to include data up to 2025 – *Following completion of the 2026 model calibration. This task was recommended by the CIG in their Feb 2024 report, which was accepted by the Commission, "with the caveat that this review is not onerous for the CTC, as determined through a review of the CTC work plan".*
•	As requested, provide analyses and support to the Commission.
•	Research and Development (R&D) Work Group – Engage the CTC and AWG to support R&D work, particularly in assembling catch and age sample data for the new model. – Agency support for dedicated time of CTC members with key expertise, continued Secretariat staff support, and ongoing external support. - Identify by early December 2025, proposed in-person meetings from April 2026 through March 2027 and report back during the January 2026 meeting on additional resource requirements. *In progress* o During the January CIG meeting the R&D work group identified a need for additional in-person collaboration, particularly for tool development. o The R&D work group plans to meet in July 2026 for three days in-person in Seattle, WA. - *These tasks were recommended by the CIG in their October 2025 report, which was accepted by the Commission.*

Proposed Meeting Dates and Draft Agendas:

Additional CTC meetings may be required, depending on the number and scope of additional tasks assigned.

Meeting	Dates	Location[1]	Meeting Objectives
2025			
Full CTC	Sept 8-12	Webinar	Workplan, 5-year review, summary report, annual reports,
Full CTC	Sep 29-Oct 3	Webinar	5-year review, report automation, annual reports, ad hoc tasks
PSC Fall Session	Oct 20-23	Sitka, AK	Only co-chairs attending
US CTC LOA	Dec 2-3	Portland, OR	U.S. LOA Workshop
Full CTC	Dec 4-5	Webinar	Annual reports, ad hoc tasks
2026			
PSC Post-season	Jan 12-16	Portland, OR	Annual reports, report automation, ad-hoc tasks
PSC Annual	Feb 9-13	Vancouver, BC	Annual reports, ERA/Model Calibration preparation, AWG to meet full day Friday and travel home Saturday
CTC-AWG	Feb 17-20	Webinar	ERA
CTC-AWG	Mar 16-20	Webinar	Model calibration
Full CTC	Apr 20-24	Webinar	Annual reports, ad-hoc tasks, update Chinook model/multivariate model comparison
CTC-AWG, R&D	May 11-15	Juneau, AK	R&D work session
Full CTC	Jun 1-5	Nanaimo, BC	Annual reports, Report automation, ad hoc tasks
R&D Meeting	July	Seattle, WA	Tool development, documentation, internal review
Full CTC	Sept 14-18	Seattle, WA	Annual reports, work plan development, summary report, ad hoc tasks
Full CTC	Sep 28	Webinar	As needed; prep for PSC Fall Session
PSC Fall Session	Oct 19-22	U.S. Location (TBD)	Only co-chairs attending
U.S. CTC LOA	Dec 1-2[2]	Portland, OR	U.S. LOA workshop
Full CTC	Dec 4	Webinar	As needed; prep for PSC Post-season meeting

[1]All meetings that are scheduled to be in person will have a hybrid option.

Status of Technical or Annual Reports:

The CTC anticipates the potential for some slight delays to the 2025 ERA and CLB reports due to the additional resources required to complete the five-year review. The 2024 C&E report is complete, and the 2025 ERA report is expected to be completed in ~~November~~February 2026, while the 2025 CLB report is expected to be completed in ~~January~~April 2026. Typically, the CLB report is completed by October, and the ERA report completed later in the year in December. The CIG granted the CTC a nine-month extension for the 5-year review to allow for incorporation of expected updates to the 2025 ERA that may have notable impacts on results. The lack of in-person meetings, high workloads, and the unresolved AABM fishery performance reporting issue have caused delays. Accordingly, the CTC intends to provide most chapters of the 5-Year Review report in advance of the October Commissioner's meeting and will share the remaining chapters once a decision on AABM reporting is made by the CIG.

TO: Pacific Salmon Commission
FROM: Chinook Technical Committee
DATE: February 3, 2026
SUBJECT: 2026 Chinook Technical Committee Response to Chapter 3, subparagraph 7(c)(ii)
CC: National Correspondents

INTRODUCTION

During the October 2025 Pacific Salmon Commission (PSC) meeting the Chinook Technical Committee (CTC) presented their 2025 Commissioner Summary Report to the Chinook Interface Group (CIG), which included individual stock-based management (ISBM) fishery evaluations based on the 2025 exploitation rate analysis (ERA). Results of these evaluations indicated that the three-year average (3YA) calendar year exploitation rate (CYER) in Canadian ISBM fisheries on the Snohomish Chinook stock exceeded the limit specified in Attachment I by more than 10%. Per the provisions of the 2019 Pacific Salmon Treaty (PST) Agreement, this required further action, as identified in subparagraphs 7(c)(i) and 7(c)(ii). At the January 2026 Post Season meeting, the CIG identified the CTC's task, per subparagraph 7(c)(ii) of the PST, to "*provide to the Commission a plan to improve performance of pre-season, in-season, and other management tools so that the deviations between CYERs and CYER limits are narrowed to a maximum level of 10% when limits apply (Attachment I),*" and requested that the CTC provide a response to this Treaty task at the February 2026 PSC Annual Meeting.

This memo is the CTC's response to that task. Below, we provide some background information on the Snohomish Chinook stock, followed by a series of bubble plots showing the spatio-temporal distribution of Canadian ISBM fishery impacts on Snohomish Chinook in an effort to help inform Canadian fishery managers when and where impacts to Snohomish Chinook may be occurring. We also introduce a recent finding that the CYER metric may be affected by abrupt changes in CWT release sizes.

BACKGROUND INFORMATION

Snohomish Chinook is an escapement indicator stock listed in Attachment I (management objective to be determined) of the 2019 PST Agreement. The CWT release group representing Snohomish Chinook is Skykomish summer fingerlings (SKY), reared at Wallace Hatchery on the Skykomish River, a major tributary to the Snohomish River. Approximately 20% of the stock exhibits a yearling smolt life history. The stock migrates locally within the Puget Sound and north to British Columbia, with the bulk of harvest taking place in British Columbia and Puget Sound sport fisheries. Snohomish Chinook salmon return mainly as 4-year-olds, with some returning at age 3 and 5 and a small percentage at age 2. They enter freshwater from May to July and have a second upstream migration in response to increased stream flow from early September to mid-October. A biologically-based management objective has not been presented to the CTC for this stock; however, Washington State and the Tulalip Tribe have agreed to an Upper Management Threshold (UMT) of 4,900 natural origin spawners and a Low Abundance Threshold (LAT) of 3,250 natural origin spawners for the Snoqualmie fall Chinook and Skykomish summer Chinook populations combined. Figure 1 displays the time series of Snohomish escapement relative to the co-manager LAT.

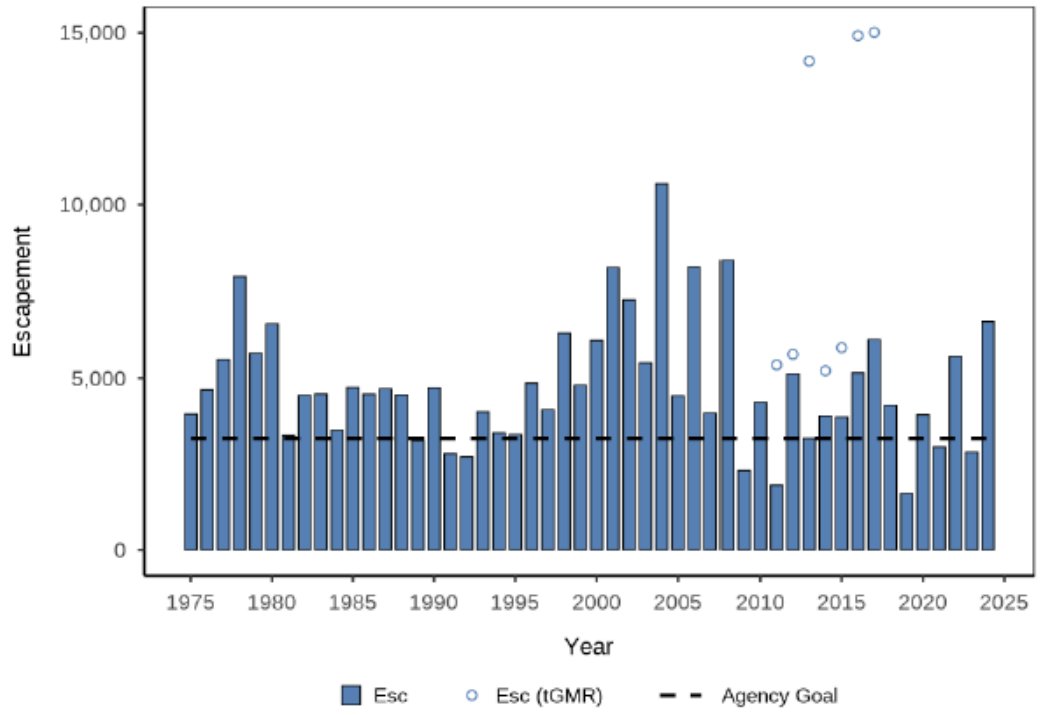


Figure 1. Snohomish River escapement of Chinook salmon to the spawning grounds, 1975–2024.

METHODS

1.1 Regional and Temporal Distribution of Fishery Impacts

To help inform managers of the specific times and areas in which Snohomish Chinook are impacted in Canadian ISBM fisheries, finer spatio-temporal estimates of fisheries impacts are needed. To this end, the CTC derived two quantities, scaled landed catch ($\boldsymbol{SLC}$) and scaled total mortality ($\boldsymbol{STM}$). Estimates

of $\boldsymbol{SLC}$ and $\boldsymbol{STM}$ are presented in bubble plots as a tool for managers to identify Pacific Fishery Management Area (PFMA; Figure 2) regions and/or time periods during which the stock are most impacted. Bubble plots of $\boldsymbol{SLC}$ provide the most direct measure of where legal sized fish are encountered and do not rely on assumptions such as incidental mortality rates or the proportion of age-based cohort that is above or below the legal size limit. Bubble plots of $\boldsymbol{STM}$ provide a more direct measure of which PFMAs have the greatest contributions to the CYERs (which are in terms of adult-equivalent (AEQ) total mortality). They also include estimates of mortalities from Chinook non-retention periods and mark-selective fisheries. Both of these plots may assist in decisions related to management actions.

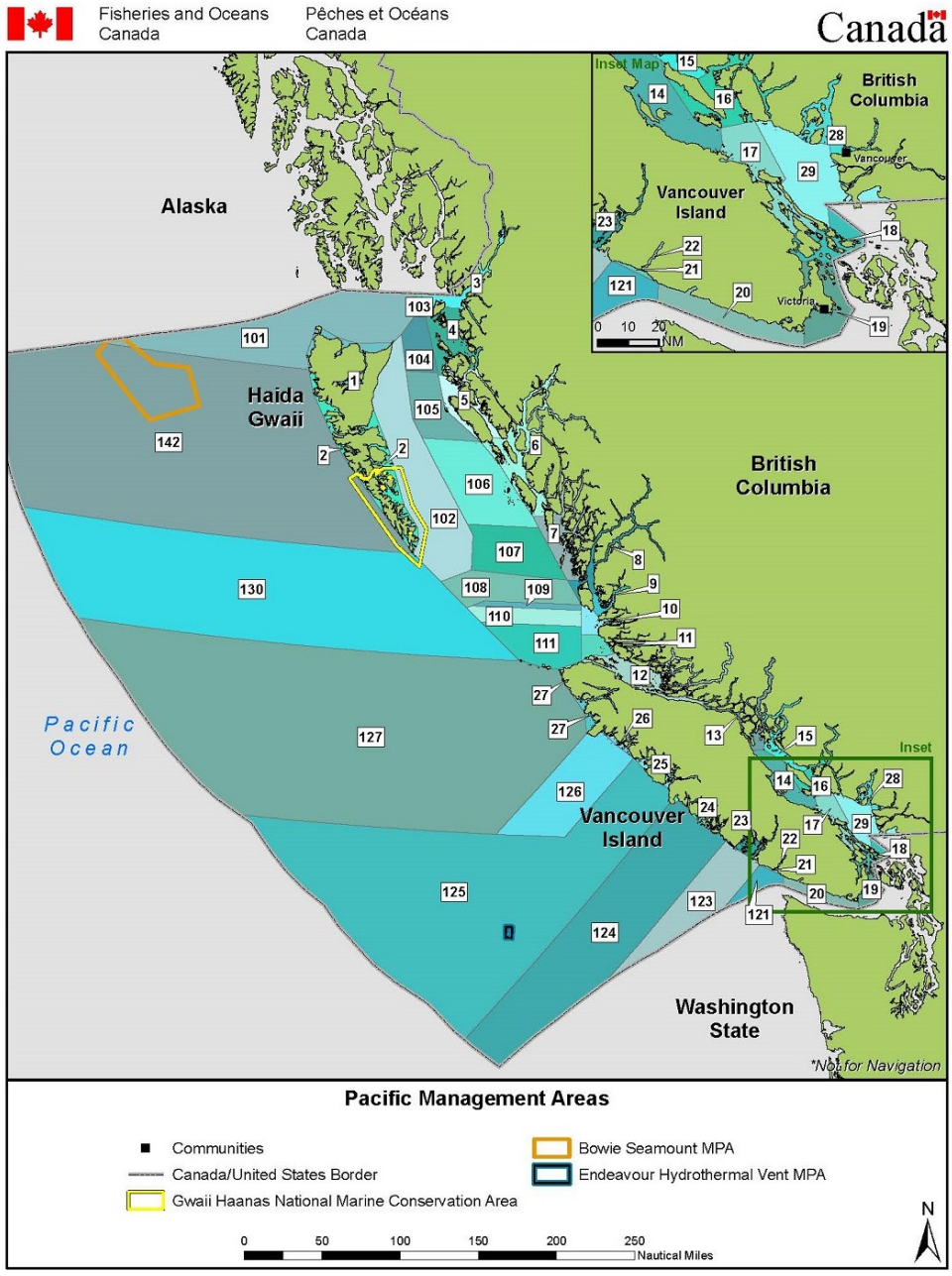


Figure 2. Overview map of Pacific Fishery Management Areas

Scaled monthly CWT landed catch at the PFMA resolution is defined as:

$$\boldsymbol{SLC_{CY,p\in f,m}} = \sum_{\boldsymbol{a}} \frac{\boldsymbol{CWTLandedCatch_{CY,p\in f,m,a}}}{\boldsymbol{CWTReleaseSize_{CY-a}}}$$

where:

$\boldsymbol{a}$ = age

$\boldsymbol{CY}$ = calendar year,

$\boldsymbol{f}$ = ERA fishery

$\boldsymbol{p}$ = component PFMA fishery within an ERA fishery f,

$\boldsymbol{m}$ = month within calendar year CY,

$\boldsymbol{SLC_{CY,p\in f,m}}$ = scaled landed catch for all ages combined in calendar year CY, fishery f, PFMA p, and month m,

$\boldsymbol{CWTLandedCatch_{CY,p\in f,m,a}}$ = estimated CWT landed catch by age a, in calendar year CY, fishery f, PFMA p, and month m, and

$\boldsymbol{CWTReleaseSize_{CY-a}}$ = age-specific CWT release size for brood year $CY - a$.

Monthly estimates of unmarked scaled AEQ total mortality, $\boldsymbol{STM}$, (i.e., the sum of AEQ scaled landed catch and incidental mortality) at the PFMA level are also presented. The ERA estimates AEQ total mortality annually for ERA fisheries. Therefore, to obtain these finer spatio-temporal estimates for SKY, the age-specific annual estimates of unmarked AEQ total mortality from each ERA fishery was scaled by CWT release size and proportionally allocated according to the ratio of $\boldsymbol{SLC}$ in each month and PFMA fishery to the total $\boldsymbol{SLC}$ of the ERA fishery and calendar year, and summed across ages:

$$\boldsymbol{STM_{CY,p\in f,m}} = \sum_{\boldsymbol{a}} \left(\frac{\boldsymbol{TotalAEQMortality_{CY,f,a}}}{\boldsymbol{CWTReleaseSize_{CY-a}}} \right) * \frac{\boldsymbol{SLC_{CY,p\in f,m}}}{\sum_{\boldsymbol{p}} \sum_{\boldsymbol{m}} \boldsymbol{SLC_{CY,p\in f,m}}}$$

where:

$\boldsymbol{STM_{CY,p\in f,m}}$ = scaled AEQ total mortality for all ages combined in calendar year CY, fishery f, PFMA p, and month m, and

$\boldsymbol{TotalAEQMortality_{CY,f,a}}$ = estimated AEQ total mortality by age a, in calendar year CY, fishery f, and PFMA p.

The assumption that the spatio-temporal distribution of total AEQ mortality is proportional to that of the CWT landed catch may vary by PFMA, fishery, stock, and/or calendar year, and is likely to be violated in three scenarios:

1. $\boldsymbol{STM_{CY,p\in f,m}}$ varying during the fishing season may bias estimates because the encounter rate of marked and unmarked fish varies throughout the fishing season.
2. Because incidental mortality is not accounted for at a finer scale than the annual fisheries level estimated by the ERA, $\boldsymbol{STM_{CY,p\in f,m}}$ estimates are likely to under or overestimate because of

variability in the retention rate of unmarked fish. Such biases are expected in mark-selective (and non-retention) fisheries because increases in incidental mortality caused by mark-selective (and non-retention) fishing will not be accurately reflected by the CWT data.

3. Ideally, $\boldsymbol{STM}$ at the ERA fishery level would be proportionally allocated based on CWT encounters (retained and released fish) but estimates of encounters cannot easily be obtained from current ERA or database outputs. Thus, another caveat to this approach is that the distribution of $\boldsymbol{SLC}$ inferred from CWTs may differ from the $\boldsymbol{STM}$ distribution because it assumes incidental mortality distributes across months and PFMAs the same way that landed catch does. In an MSF or mixed-bag fishery, however, the encounter patterns on marked and unmarked fish (and thus incidental mortality) might differ from what the CWT data in the landed catch would imply. In areas with high unmarked encounters but low marked retention, the total mortality would be greater than the CWT landed catch data would suggest.

Finally, $\boldsymbol{SLC}$ and $\boldsymbol{STM}$ are only presented for Canadian ISBM fisheries as these fisheries are most relevant to paragraph (7)(c) and the purpose of this memo.

SUPPORTING INFORMATION

1.2 Graphical Analysis of Mortalities

Figures 3 through 6 below present the spatio-temporal distribution of scaled landed catch or total mortality for Snohomish Chinook in Canadian ISBM fisheries. They show the distribution across PFMA regions by month and year (or summed across years). The size and color of each point represent the magnitude of scaled catch or mortality. PFMA labels that start with “P” on the left side of the figure represent the full coverage of PFMA shown in Figure 2 (e.g., “P013” is PFMA 13). Areas that begin with an “M” are modified areas that either represent part of an existing PFMA (e.g., “M19A” represent the Saanich Inlet portion of PFMA 19) or collections of PFMAs (e.g., “M101” represents the combined area of PFMA 13 and 14).

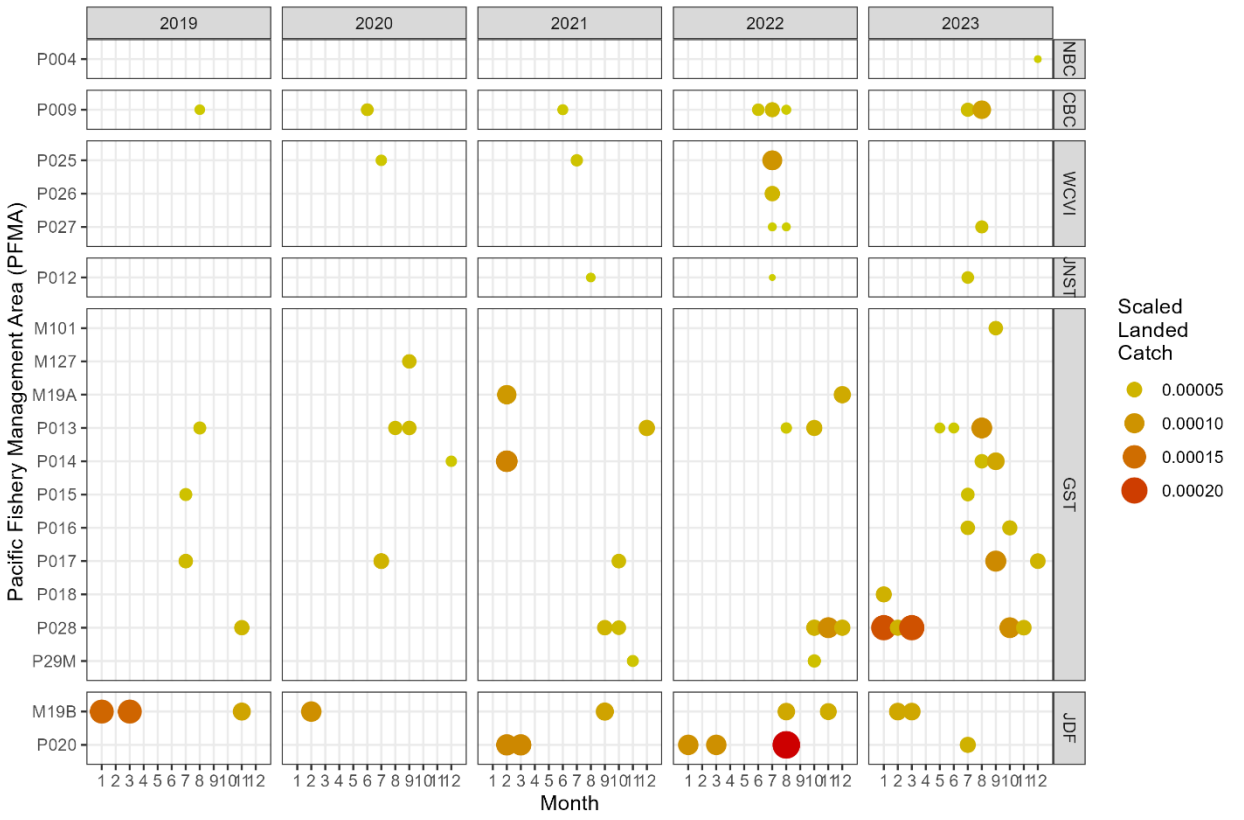


Figure 4. Distribution of scaled landed catch of Snohomish Chinook in Canadian ISBM fisheries across PFMA regions by month for 2019–2023. The size and color of each point correspond to the magnitude of scaled landed catch.

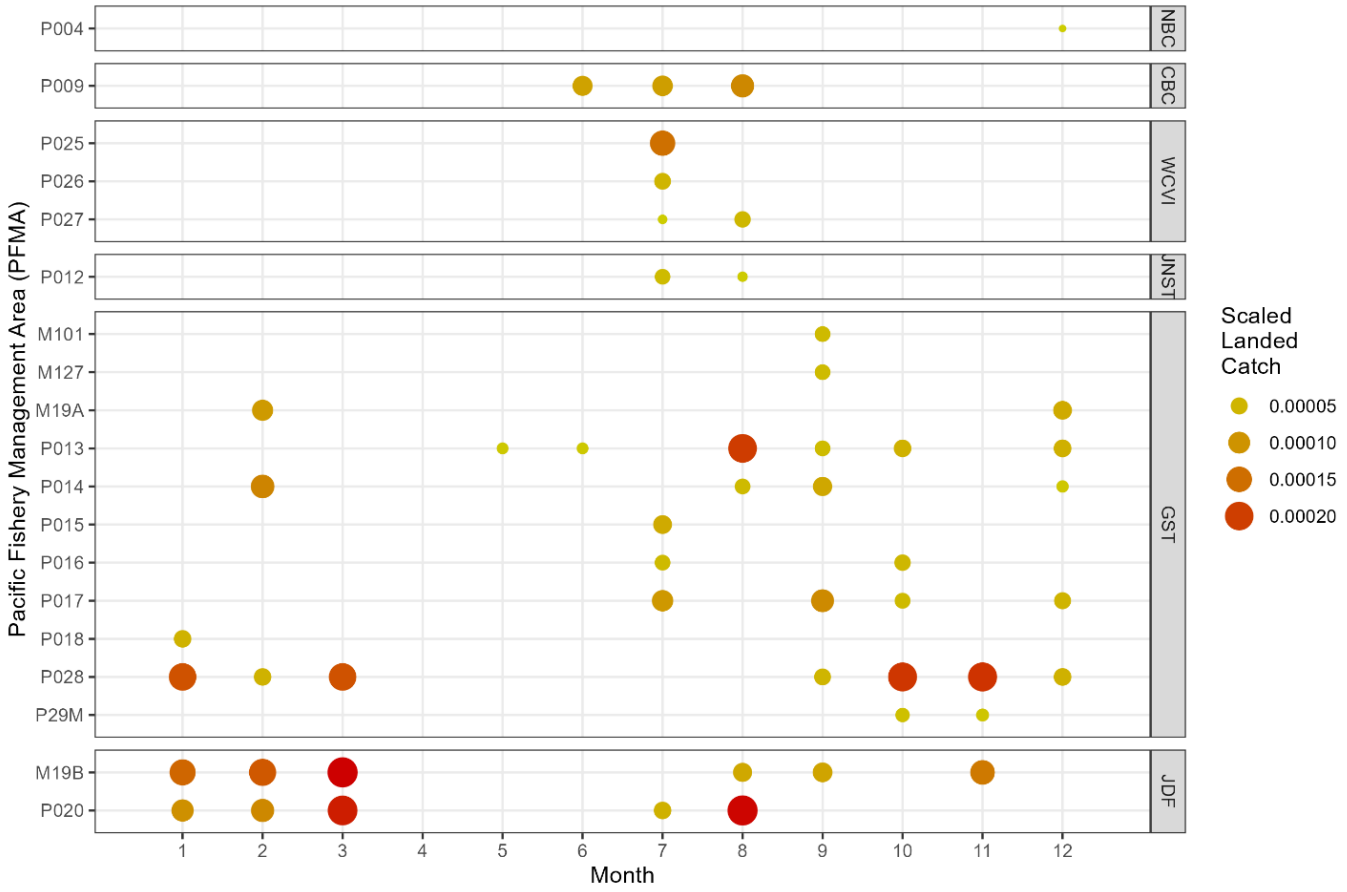


Figure 5. Distribution of scaled landed catch of Snohomish Chinook in Canadian ISBM fisheries across PFMA regions by month summed across years 2019–2023. The size and color of each point correspond to the magnitude of scaled landed catch.

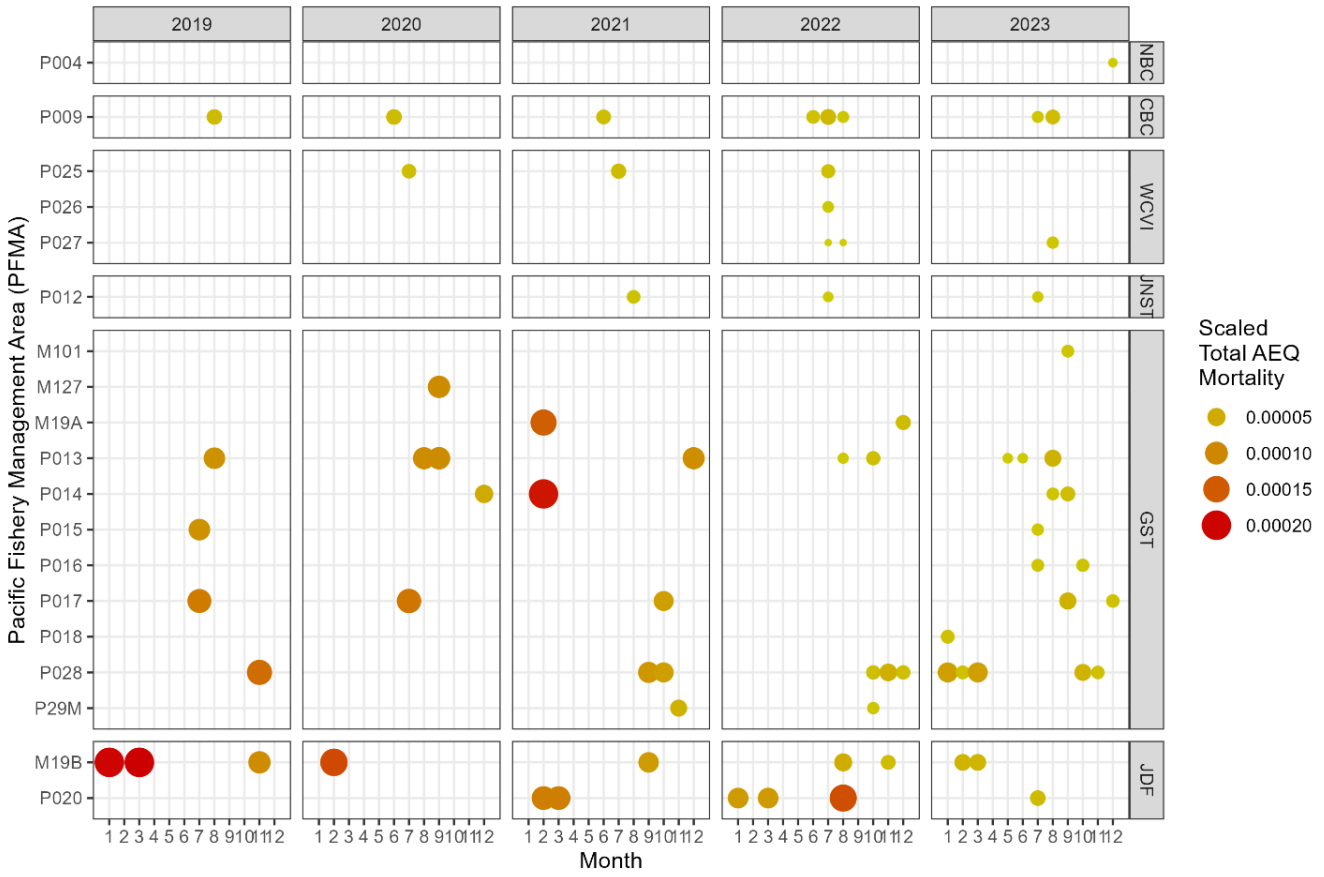


Figure 6. Distribution of AEQ total mortality of Snohomish Chinook in Canadian ISBM fisheries across PFMA regions by month and year, 2019–2023. The size and color of each point correspond to the magnitude of AEQ total mortality.

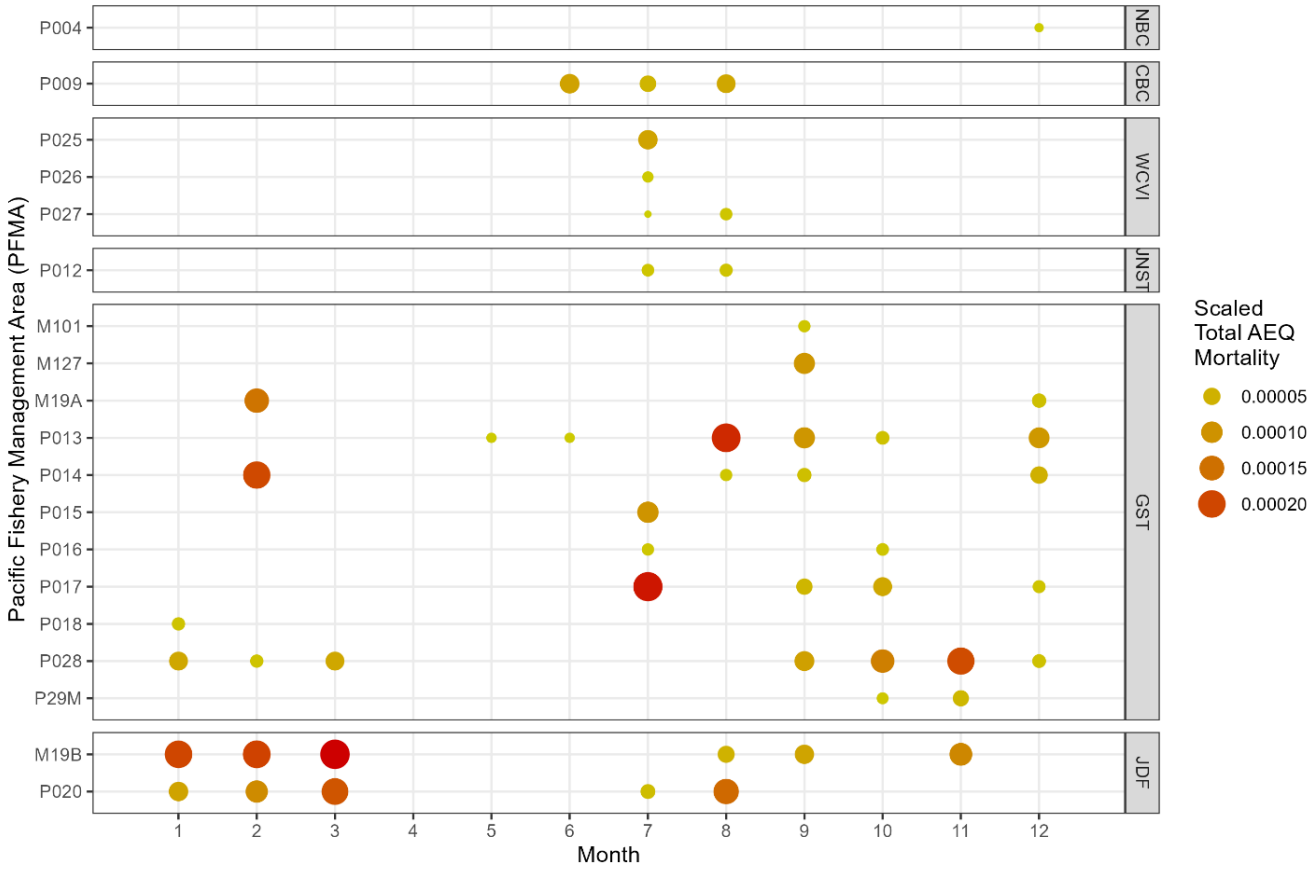


Figure 7. Distribution of AEQ total mortality of Snohomish Chinook in Canadian ISBM fisheries across PFMA regions by month summed across years 2019–2023. The size and color of each point correspond to the magnitude of AEQ total mortality.

1.3 Release Size Effects on CYER Metric

Through the course of updating catch estimates to unmarked CYERs, the CTC identified an outlying high exploitation rate for SKY that was not exhibited in other Puget Sound stocks with similar distributions. The CYER estimates for most Puget Sound stocks were within the range of recent values, but SKY had a Canadian ISBM CYER estimate in 2021 that was the highest in the entire time series (Figure 8). Upon further investigation, it was found that mortality of the age-2 cohort was the largest of all the age-classes contributing to the 2021 Canadian ISBM CYER estimate with 51% of total mortality and 72% of incidental mortality. This substantial increase in age-2 fishery mortality coincided with a substantial increase in CWT releases in brood year 2019 (Figure 8). This suggested that changes in tagging levels may influence CYER estimates, which are generally interpreted as reflective of fishing patterns and not variability in the number of tags released for an indicator stock. Subsequent unpublished analyses by the CTC have confirmed that large changes in CWT release sizes can affect CYER estimates.

The CTC has investigated ways to modify the CYER metric to reduce the influence of release size, but more work would be needed such as performance evaluation techniques with simulated data to better understand the properties of the corrections before they could be proposed for implementation.

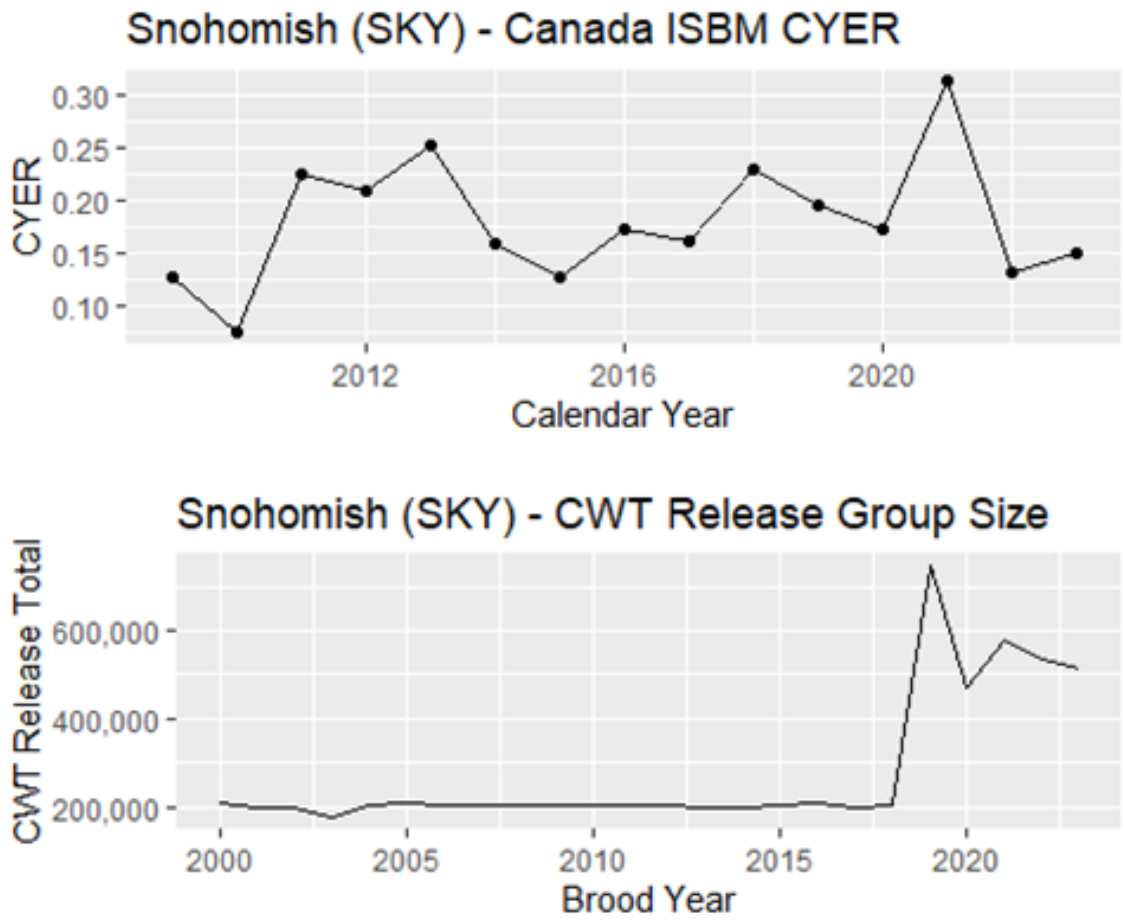


Figure 8. Canadian CYER estimates (top) and CWT release number (bottom) time series for the Snohomish (SKY) indicator stock from the February 2025 Chinook Technical Committee Exploitation Rate Analysis.

DISCUSSION

The CTC does not have pre-season or in-season evaluation tools to support fisheries planning to meet the CYER objectives. For stocks with PSC-approved management objectives, pre-season abundance forecasts below the PSC-approved goal may signal an elevated risk of triggering subparagraph 7(c); however, inter-annual variability in stock abundances is expected. As such, below-target pre-season abundance forecasts should always be considered alongside other factors, such as recent performance for each stock. Analyses of temporal and spatial mortality distributions have been provided to highlight when and where impacts are concentrated by examining scaled landed catch and total mortality in fisheries at a finer spatial and temporal scale than is typically reported by the CTC. These retrospective analyses may aid managers in pre-season planning or in-season actions to avoid exceeding CYER limits in subparagraph 7(c) in the future.

The main conclusions from the graphical analysis of scaled mortality distributions in Figures 3 to 6 are:

- Snohomish Chinook mortalities in Canadian ISBM fisheries are widely distributed temporally and spatially with the highest concentration of ISBM mortalities occurring in the Strait of Georgia and Juan de Fuca fisheries.

- The fishery-months with the largest scaled total mortalities across all years from 2019-2023 were Juan De Fuca Strait (PFMA: M19B) during the January-March period and portions of the Strait of Georgia: PFMA 13 in August, PFMA 14 in February, PFMA 17 in July, and PFMA 28 in November.
- Scaled mortalities were higher in the Strait of Georgia (PFMAs 14 and 19A) in February 2021 compared to other months and years.
- Similar spatial and temporal mortality distribution patterns occurred for both Landed Catch and Total Mortality.
- Increased tagging levels of Snohomish indicator stock will provide greater precision in the more recent years of the time series. This greater precision along with the recent years being more consistent with current regulatory regimes would suggest that the latest two years of the time series may be more informative to management decisions.

Because the ERA is conducted annually in February, and Southern U.S. (SUS) CWT data are not yet available for the previous calendar year, the results of any changes made in Canadian ISBM fisheries in 2026 in response to triggering subparagraph 7(c) will not be seen until the 2028 ERA. The CTC encourages management entities to make improvements and establish efficiencies that will speed up data availability. While decreasing the CWT reporting lag in the SUS would reduce the reporting lag for the ERA by one year, there is still a substantial delay between the planning and execution of fisheries and the feedback as to whether subparagraph 7(c) was triggered by ISBM fisheries.

In closing, the CTC is providing the bubble plots included above to help inform Canadian fishery managers when and where impacts to Snohomish Chinook may be the highest in Canadian ISBM fisheries should they consider management actions to reduce those impacts. The CTC further recommends additional investigation and discussion regarding potential improvements to the CYER metric to reduce sensitivity to substantial changes in CWT release size.

Lastly, the CTC notes a current lack of bilateral pre-season, in-season, or other management tools for evaluating ISBM fisheries, and that the CIG recently discussed at their January 2026 meeting the idea of convening a small group to explore the potential development of additional analytical tools that could help with bilateral management of Salish Sea fisheries and stocks. Should the Commission deem it a valuable use of the CTC's time, the CTC offers its assistance in these efforts as work advances.

Proposed Working Group

Improved Management Tools for Southern British Columbia and Washington Chinook Salmon Fisheries

Draft February 10, 2026

The Chinook Technical Committee (CTC) recently completed an assessment[1] under Chapter 3, paragraph 7(c)(ii), for the Snohomish escapement indicator to "provide to the Commission a plan to improve performance of pre-season, in-season, and other management tools so that the deviations between CYERs and CYER limits are narrowed to a maximum level of 10% when limits apply (Attachment I)." A conclusion of the assessment was:

> "...the CTC notes a current lack of bilateral pre-season, in-season, or other management tools for evaluating ISBM fisheries, and that the CIG recently discussed at their January 2026 meeting the idea of convening a small group to explore the potential development of additional analytical tools that could help with bilateral management of Salish Sea fisheries and stocks."

To address this conclusion, a working group reporting to the Chinook Interface Group (CIG) will be convened with the objective of initiating the development and implementation of analytical tools for Chinook salmon fisheries in southern British Columbia and Washington. The goal would be to have improved fishery planning tools.

The CIG has identified the following initial task for the working group:

- Develop for CIG review by end of July 2026 a scoping document that describes:

    a. Both parties' interests and shared objectives for analytical tools
    b. Which stocks and fisheries to be incorporated
    c. A review of analytical tools and the data available
    d. Performance measures to evaluate management actions

After completion of the task and a follow up discussion at CIG, a discussion on the next steps should occur.

The working group shall initially be comprised of the following members.

Canada:

- Mike Hawkshaw
- Brian Riddell
- TBD

US members:

- Jim Scott
- Craig Bowhay
- Jon Carey

[1] February 3, 2026, memorandum from Chinook Technical Committee to Pacific Salmon Commission regarding "2026 Chinook Technical Committee Response to Chapter 3, subparagraph 7(c)(ii)".

Additional members may be added as necessary to complete tasks assigned by the Commission.

U.S. Commissioners
Philip Anderson, Chair
W. Ron Allen
Jennifer Quan
Douglas Vincent-Lang

UNITED STATES SECTION
of the
PACIFIC SALMON COMMISSION

Office of the
U.S. Section Coordinator
7600 Sand Point Way N.E.
Building 1, F/NWR2
Seattle, WA 98115

January 20, 2026

Anna Classen, Vice-Chair
Regional Director General
Fisheries and Oceans Canada, Pacific Region
Via email: Anna.Classen@dfo-mpo.gc.ca

RE: Additional Questions Concerning Canada's Paragraph 7(c)(i) Response

Dear Vice-Chair Classen,

The United States section of the Pacific Salmon Commission appreciated the information provided in your January letter and presentations at the 2026 post-season meeting regarding the management of the Canadian individual-stock-based management (ISBM) fisheries and fishery impacts on the Snohomish stock. We have three follow-up questions to help us prepare for further discussion in February pursuant to paragraph 7(c)(i).

1) In our October 2025 letter (see attachment) the U.S. provided analyses regarding our conclusion that additional management actions will be needed in the Canadian ISBM fisheries to consistently achieve the Treaty obligations. Does Canada have any comments on or suggestions for the analyses in the letter? Per our letter, we "would be interested in receiving the data and any analyses that Canada has conducted" regarding encounters per unit of recreational fishing effort as displayed in the figure.

2) Your letter speaks to concerns regarding "overestimation of CYER impacts" in the 2021 estimate for the Snohomish stock. Our understanding is that an informal bilateral analysis found that the 2021 estimate was 0.242 with a correction that standardized for the number of tagged fish released. Does Canada agree with that analysis?

3) Your letter identifies several changes in management that occurred in 2024 that Canada suggests "are expected to further reduce impacts on Snohomish chinook." We would be interested in seeing prior to the February meeting any pre-season or post-season analyses by Canada that would provide increased certainty that the ISBM obligation was achieved in 2024.

As was discussed in the Chinook Interface Group, we would like to work with Canada in the development and implementation of improved planning tools for south coast and southern U.S. fisheries. We see this as a valuable step forward in our continuing efforts in working with Canada through the Pacific Salmon Treaty to improve the management of all of our Chinook salmon stocks.

Sincerely,

Philip Anderson
Chair, U.S. Section
Pacific Salmon Commission

Cc: U.S. Commissioners and Alternate Commissioners
John Field, Executive Secretary, Pacific Salmon Commission

Milestones for Annex IV Meetings 2025-2029

Attachment 5: Milestones for Annex IV Renegotiations

Task List

1/13-1/17 (Post Season Meeting)

Receive in camera input from panels and committees on chapter update concepts and priorities

2/10-2/14 (Annual Meeting)

Confirm schedules for non-Chinook chapter updates through February 2027

10/20-10/24 (Fall Meeting)

Routine Business

1/12-1/16 (Post Season Meeting)

Panels/committees exchange ideas for updating chapter language as appropriate

Routine Business

2/16-2/20 (Annual Meeting)

Confirm dates and format (in-person/virtual) for special discussion meetings anticipated in 2026-2027 beyond Oct/Jan/Feb routine schedule

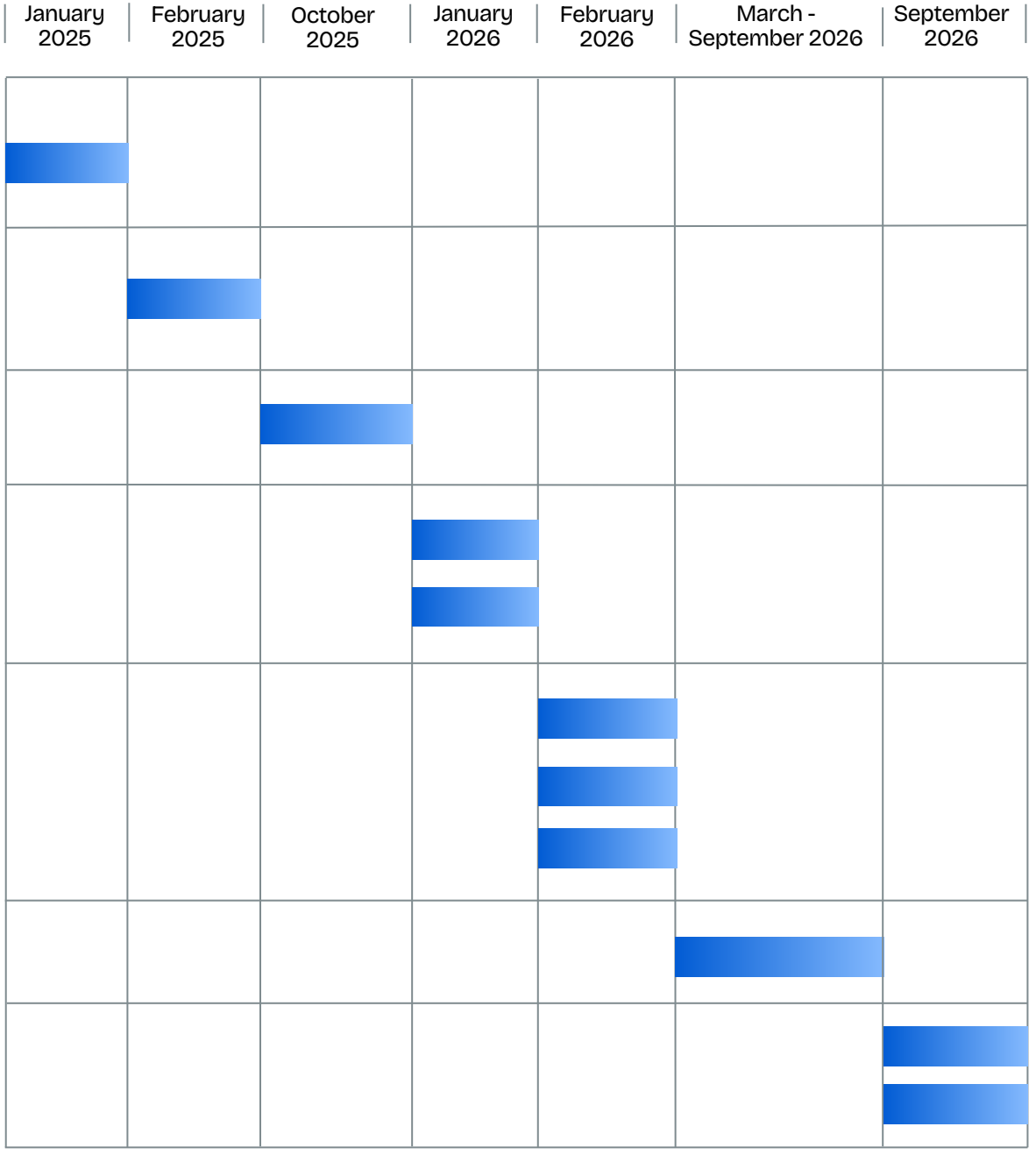
Panels/committees exchange ideas for updating chapter language as appropriate

Routine Business

National sections develop lists of desired changes to Chapter 3 and other text not under remit of a panel or committee

Consider size, membership and protocol for Chinook update team

Exchange ideas for Chapter 3 updates as appropriate



Milestones for Annex IV Meetings 2025-2029

Task List

10/19-10/23 (Fall Meeting)

Routine Business

Exchange ideas for Chapter 3 updates

1/11-1/15 (Post-Season Meeting)

Routine Business

Panels/committees exchange ideas for updating chapter language as appropriate

2/8-2/12 (Annual Meeting)

Routine Business

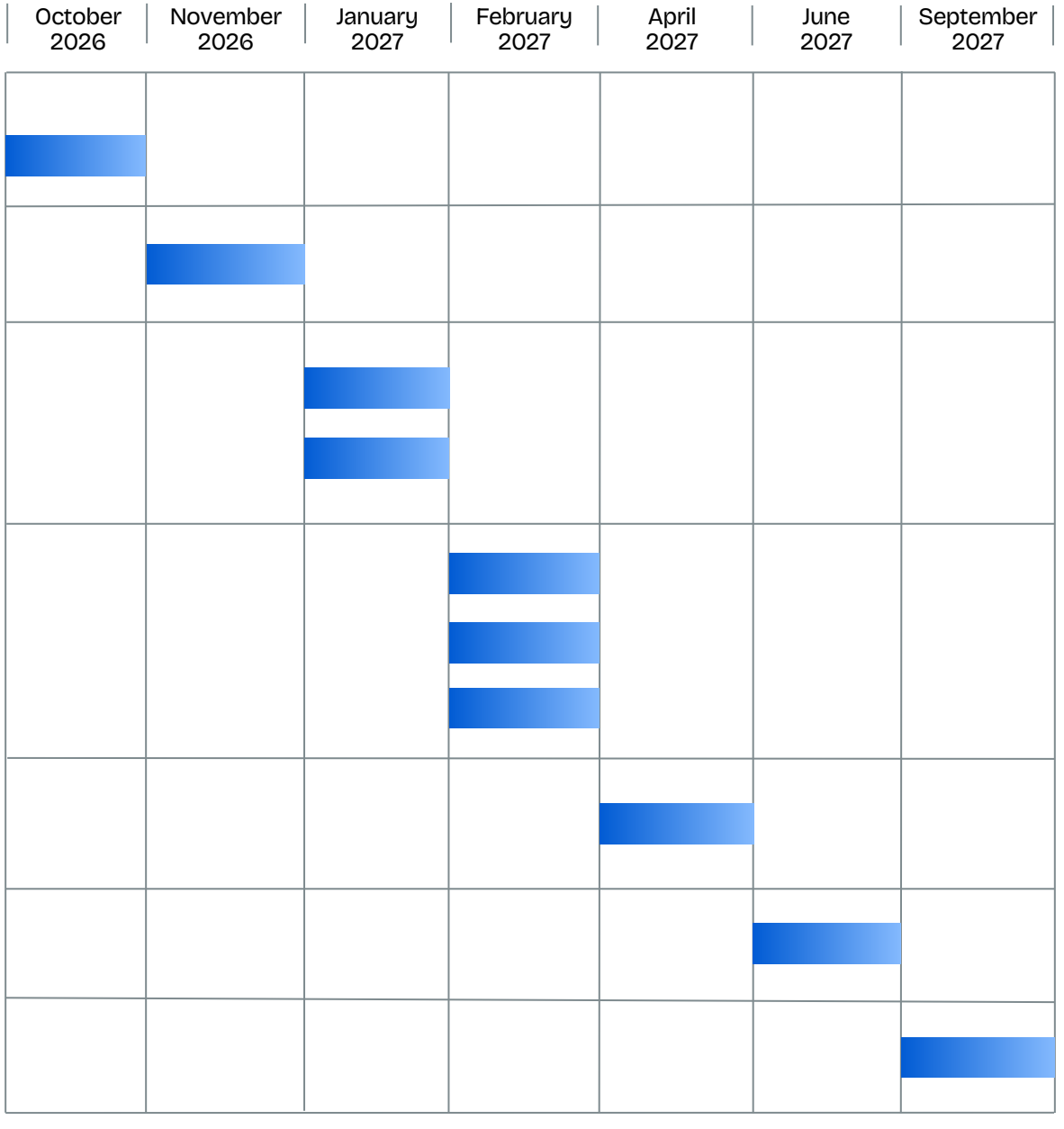
Panels/committees conclude discussions for Chapters 1, 2, 4, 5, and 6 and submit to Commissioners

Commissioners review panel/committee proposed amendments to Chapters 1, 2, 4, 5, and 6

Special discussion meeting for Chapter 3 and any outstanding issues from panels/committees

Special discussion meeting for Chapter 3 and any outstanding issues from panels/committees

Special discussion meeting for Chapter 3 and any outstanding issues from panels/committees



Milestones for Annex IV Meetings 2025-2029

Task List

October 2027 Fall Meeting

Routine Business

Chinook Discussion Team meeting

Final resolution of Ch. 3 discussions and any outstanding issues not finalized by panels.

January 2028 Post Season Meeting

Commissioners approve proposed amendments to Chapters 1, 2, 3, 4, 5, and 6 and transmit to national legal advisors

Legal review of amended text

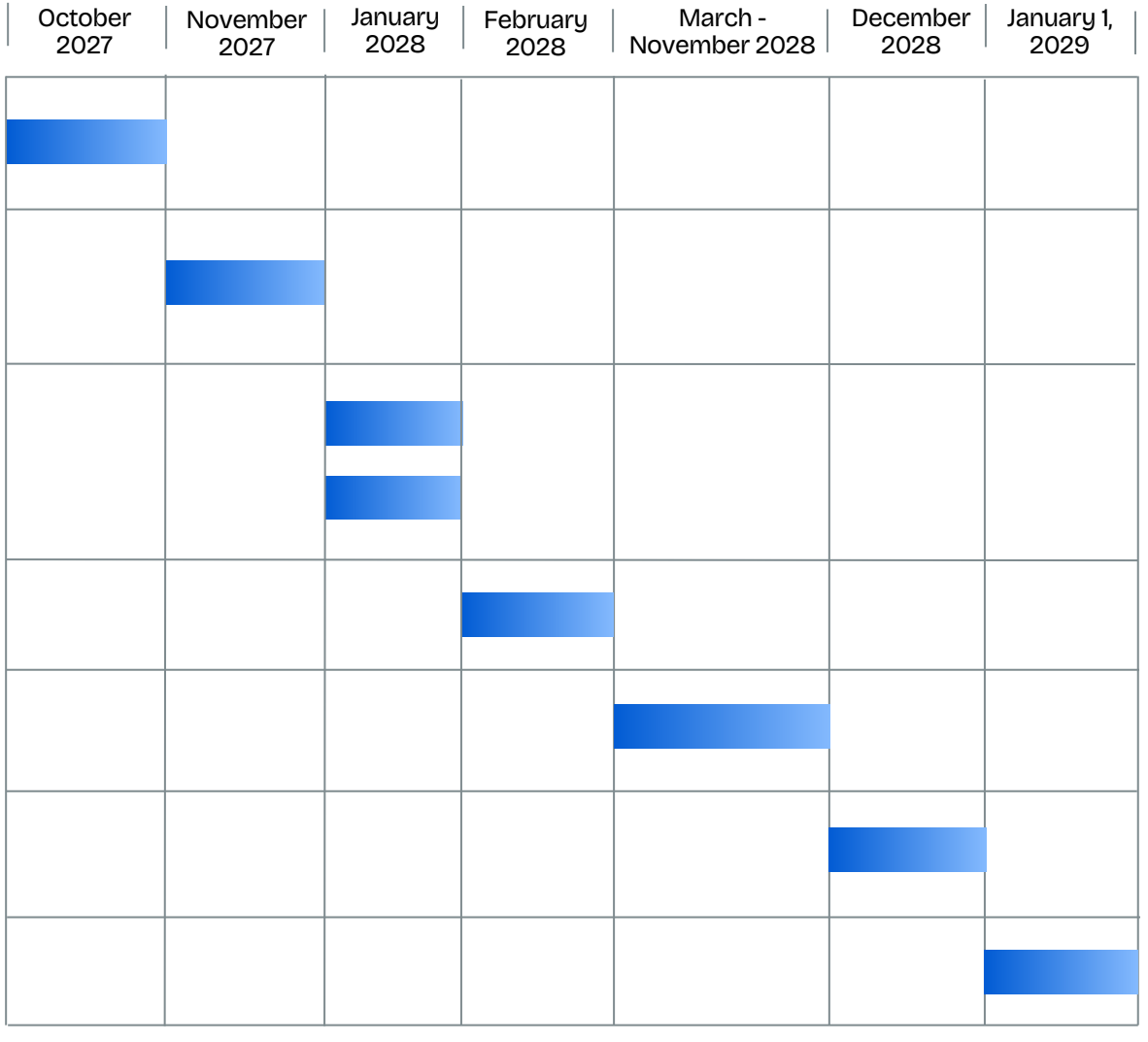
February 2028 Annual Meeting

Finalization of language and transmittal to capitals

Domestic processes for review and acceptance of proposed amendments

Exchange of diplomatic notes for entry into force of amended Annex IV by January 1, 2029

Amended chapters enter into force



TO: Chinook Interface Group
FROM: Chinook Technical Committee Research and Development Workgroup
DATE: February 4, 2026
SUBJECT: R&D Work Group's Update and Future Updates
CC: National Correspondents

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1. The Research and Development (R&D) work group is meeting regularly, both virtually and during scheduled in-person Chinook Technical Committee (CTC) meetings. Along with the broader CTC, we continue to make progress on our major tasks, which are:
    - Testing performance of the Statistical Catch at Age Model (SCA), and comparing performance of the SCA to the CTC's current assessment methods, with simulations of various types of challenging scenarios
    - Scaling the SCA up for assessment of the Pacific Salmon Commission fisheries and stocks
    - Assembling the additional agency data required for the SCA
2. Given the R&D Workgroup's tight development timeline, we plan to regularly provide written updates to the CIG between now and the next scheduled CIG meeting in November. **We would appreciate guidance from the CIG on any specific content they'd like to receive, how they'd like to receive these updates, etc.**

U.S. Motion Regarding
2026 U.S. ISBM Limits for Puget Sound Chinook Escapement Indicator Stocks
February 12, 2026

The U.S. seeks Commission consideration and approval of the following motion:

"Pursuant to Chapter 3, Paragraph 7 (g), the calendar year exploitation rate (CYER) limits for U.S. ISBM fisheries for the Nooksack, Skagit (Spring and Summer), Stillaguamish, and Snohomish stocks will remain consistent for 2026 with those provided by the Chinook Technical Committee (CTC) in April 2024 as adjusted for unmarked Chinook salmon using methods described in the CTC memorandum of April 23, 2025."