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Fraser Salmon Management Board

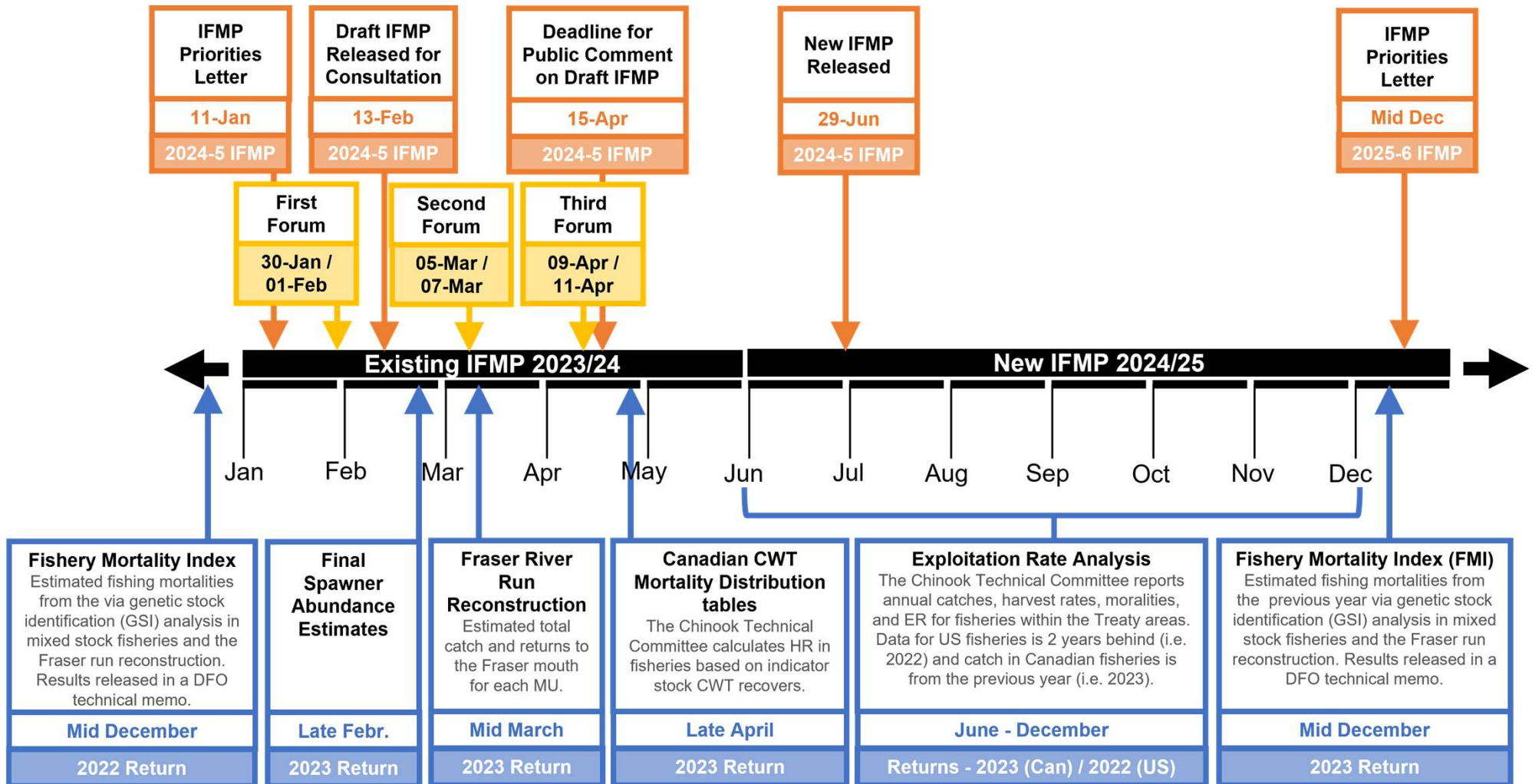
Fraser Summer 5₂ Chinook Management

Presentation to the Fraser Forum
March 6, 2024

Outline

- Timelines – Chinook Management
- 2023-24 FSMB Workplan – Chinook
- 2023 Planning Process Overview
- Update on 2024 FSMB/JTC Planning Process
- Summary of Technical Information
- Key Considerations & Questions

Chinook Timelines – Data & IFMP



2023-24 FSMB Work Plan - Chinook

The FSMB's annual workplan includes specific work items related to Fraser Chinook, and an overarching goal, summarized below.

Goal: Develop Chinook fisheries management measures that achieve identified conservation objectives and provide for priority access for food, social and ceremonial fisheries.

Objectives:

- 1. Develop recommendations for quantitative fishery mortality indices targets for Fraser Summer 52 Chinook stocks**
- 2. Post-season review of harvest impact analysis**
- 3. Review projections of fishery mortality indices (FMI) for alternative management measures for consistency with management objectives**
- 4. Develop multi-year workplan for Chinook (set priorities for future work)**
- 5. Develop a summary of catch monitoring and reporting in place for all fisheries**

Review of 2023 Planning Process

- FSMB planning for 2023 season was challenging and consensus was not reached on the management approach for Summer 5₂ Chinook.
- The 2023-24 IFMP includes a management plan targeting a reduction in fishery impacts to ~14% for Summer 5₂ Chinook via additional management actions in commercial and recreational fisheries.
- The dispute resolution process outlined areas for further work (Marcel presented on this at January 2024 Forum meeting)
- The lessons learned in 2023 informed development of approach for 2024/25 planning and a stronger linkage to planning timelines.

2024 Planning

- **Planning process and timelines**
 - Develop management objectives for inclusion in draft 2024/25 Salmon IFMP (**complete**)
 - Consider input on management approach (March-early April)
 - Evaluation of alternative options (March – early April); and,
 - Development of recommendations (end April)
- **Science advice (Fisheries Science Advisory Report, FSAR)**

New template to document stock assessment advice on stock status and trends relative to precautionary approach reference points (e.g. limit reference point, etc.). Fraser Chinook assessments intended to inform future development of management objectives.
- **Mark Selective Fishery (MSF) framework** – work to review fishery impacts (e.g. FMI) including MSF; plans to review MSF framework

2023/24 JTC Process – Chinook Mgmt

Like in 2022/2023, JTC reviewed draft FMI memo and provided suggestions for improvements that were incorporated into the final memo.

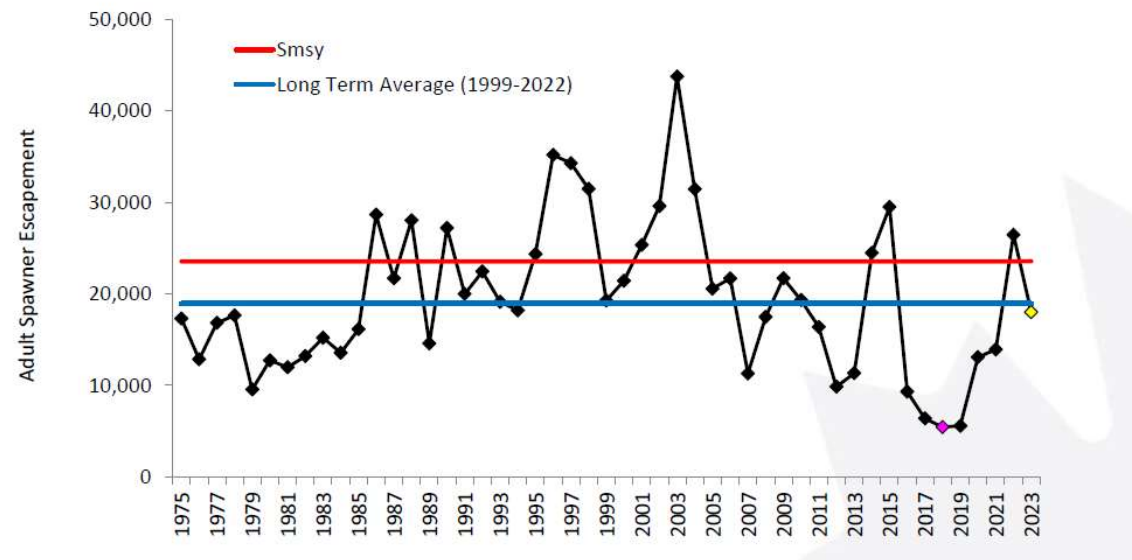
What was different in 2023/2024?

- Report on results of updated FMI analysis, uncertainties, and recommendations provided to FSMB
- Reviewed how decisions were made to meet FMI reduction to Summer 5₂ Chinook in 2023; report provided to FSMB

Provided consensus review and recommendations to FSMB on the latest 2019-2022 Fraser Chinook FMI memo.

Initial 2023 Management Outcomes

- Spawner abundance (approx. 18,000) showed a substantial improvement over the 2018 brood year
- 2023 fishery mortality index (FMI) data won't be available until **Fall 2024**
- FMI Results through the 2022 season are available.



FMI Results – 2022 & Average

Table 1. Total Fishery Mortality Index by Management Unit - Base Period and Review Period

Management Unit	2014-2018 Avg. FMI	2019 FMI	2020 FMI	2021 FMI	2022 FMI	2019-2022 Avg. FMI
Spring 4 ₂	25.1%	5.1%	4.5%	3.6%	2.8%	3.9%
Spring 5 ₂	24.2%	10.3%	2.6%	5.7%	2.7%	4.9%
Summer 5 ₂	25.0%	18.2%	13.0%	14.8%	10.2%	13.1%
Summer 4 ₁	43.0%	32.0%	25.2%	24.1%	26.8%	27.1%
Fall 4 ₁	23.8%	18.1%	19.5%	23.3%	31.4%	24.5%

2022 FMI Memo - JTC Recommendations

Summary	Details
<p>Maintain management objectives for early-run Chinook of rebuilding depressed stocks and meeting escapement objectives.</p>	<p>Management targets of ER/FMI need to be aligned with escapement objectives (long-term survival and sustainability). JTC member involvement (from FSMC) is recommended in the new FSAR process for Fraser Chinook for future discussion and review.</p>
<p>Continue the support and representative operation of CWT indicator stock programs for all Fraser Chinook MUs</p>	<p>Ensure CWT indicator stock programs are directly representative of their MU. This will provide more information on understanding the impact on all Fraser CN.</p>
<p>Conduct an audit of the current Fraser River Chinook Run Reconstruction model.</p>	<p>Significant concerns have been identified surrounding several assumptions of the model and its structure not adequately characterizing key uncertainties. Identify how various Chinook escapement infilling procedures influence the Run Reconstruction results.</p>
<p>Develop plan for obtaining sufficient sample sizes of Chinook in GSI baselines to reduce uncertainty.</p>	
<p>Management planning targets must align with the assessment tools available to evaluate the results with statistical defensibility</p>	<p>(i.e., currently we're managing FMIs to a scale much finer than the associated uncertainties). Estimates of uncertainty need to be produced for all fishery management evaluation tools</p>

2024 FSMB Consensus Recommendation

RECOMMENDATION: The Fraser Salmon Management Board (FSMB) recommends the continuation of precautionary fishery restrictions to provide a high degree of protection to at-risk Fraser stream-type Chinook management units (Spring 4₂, Spring 5₂, and Summer 5₂).

For Summer 5₂ Chinook, the FSMB recommends the continuation of precautionary fishery restrictions in Canadian fisheries to maintain very low fishery mortalities in the range of 10% to 14% to allow as many fish to pass through to the spawning grounds as possible.

Intended to support:

- continued rebuilding,
- mitigate anticipated low returns from populations that were heavily impacted by Big Bar in 2019,
- protect returns of populations that underwent emergency enhancement, and
- mitigate anticipated risks from adverse environmental conditions expected this summer (e.g., El Niño, drought conditions).
- Priority access for First Nations food, social and ceremonial fisheries

First Nations Priority Access for FSC

- Many First Nations communities continue to face challenges in meeting their Chinook FSC allocations, particularly in the upper Fraser.
- In 2023, the Department planned fisheries to reduce overall impacts, but maintain recent fishery mortality levels in First Nations FSC fisheries to reflect:
 - priority of FN FSC fisheries after conservation,
 - remaining impacts limited to bycatch and incidental mortality in recreational, commercial and test fisheries.
- Fraser River FN Fisheries:
 - Impacts in First Nations FSC and Treaty domestic fisheries intended to support very limited directed harvests early in the season and communal access to more abundant Chinook stocks (e.g., Fraser Summer 4₁) later in the season
 - Additional FSC opportunities permitted in terminal areas of the Fraser watershed where abundance permits.
- Marine FN FSC fisheries for Chinook permitted with requests to collect additional genetic samples.
- The FSMB is continuing discussion on the operationalization of priority for First Nations FSC fisheries, consistent with legal obligations and allocation priorities.

Discussion Questions

1. Do you support continuation of management measures implemented in 2022 or 2023? If not, what specific changes would you propose?
2. Would you support a limited increase in impacts in Fraser First Nations FSC fisheries earlier in the season? If so, what do you propose?
3. Are there terminal areas where there may be opportunities to harvest salmon returning above spawning requirements?
4. How should Chinook fisheries be managed in times and areas when sockeye may be encountered e.g. if there is no sockeye total allowable catch (TAC)?
5. Are there other things that need to be considered?