

JTWG Tier 1 Update

Aidan Fisher and JTWG participants

JTWG Topics for Discussion

- Big Bar Landslide Technical Team Update – Michael Crowe
- Chinook Escapement Data for 2019 – Chuck Parken
- Fraser Chinook Run Reconstruction Methods Changes – Chuck Parken
- South Coast Marine Recreational Data 2019 – Wilf Luedke
- Chinook Strategic Planning Committee Technical Update – Jeff Grout
- Preliminary Sockeye Escapement Data 2019 – Jamie Scroggie
- Planning for March JTWG Meeting – Aidan and Marla
- *DEFERRED 5-year Chinook Management Review – Kendra Holt

Big Bar Landslide Technical Team Update

- Presentation from Michael Crowe
- Two technical teams established: One focused on fish passage, one focused on strategic enhancement. Participants list shared with JTWG.
- Fish passage team focused on contingency plans if full passage is not achieved this winter. Multiple plans are being developed, discussions will be active and ongoing during and post rock clearing.
- Strategic enhancement team. Discuss options for enhancement of Fraser salmon stocks above the Big Bar slide, details on stock prioritization were discussed.

Chinook Escapement Data for 2019

- Chuck Parken presented 2019 Fraser chinook escapement data.
- Discussion on the definition of the Smsy values for Fraser chinook MUs, and the escapement value for Fall 4(1).
- Jack returns were variable across MUs, high jack returns in L. Shuswap, low jack returns in Harrison.
- Low returns in Stream-type MUs create challenges for estimating escapement, error in escapement estimates.
- Biometrics of interest: pre-spawn mortality, arrival delay, body size and fecundity were discussed.

Fraser Chinook Run Reconstruction Methods Changes

- Backwards (spawning grounds to the mouth) accounting to identify catch by stock and CU to fisheries along the Fraser to the Mouth.
- No explicit enroute mortality estimates are incorporated in the RR methodology. Previously identified and discussed, but not substantial enough to drastically bias the results. Bonaparte fishway collapse in 2018 was one example.
- Big Bar (enroute) mortality needs to be accounted for in 2019, it is substantial enough to bias the results drastically. Methodology to account for Big Bar mortality needs to be developed for 2019.
- JTWG is very interested in understanding proposed methods, and providing recommendations to changes to the RR in 2019.

South Coast Marine Recreational Data 2019

- Wilf Luedke presented Marine recreational fishery data from 2019, specific to chinook.
- Data presented were specific to May – July period for creel surveys. Full year is available, excel file will be distributed to JTWG participants.
- General reduction in effort over chinook non-retention period, once retention was implemented effort increased substantially.
- DNA data were collected for 2019, samples still to be analyzed. Preliminary results were shown. Final results will be shared once all samples are processed.

Chinook Strategic Planning Committee

Technical Update

- Suggestion to review 2019 management actions with 5-year review methodology, even if the methods cannot be updated with 2020 results. DNA information from 2019 could be included once complete.
- Fisheries Related Induced Mortality (FRIM) need to be updated, current rates are informed by outdate studies, many new studies have occurred and are informative using the Patterson method, CSAS paper from 2017.
- Need to reconcile the definition of “significant” and “insignificant” catch of Fraser chinook. Terms are used by DFO often and applied inconsistently. Technical groups can evaluate how many fish are intercepted, with error, but cannot define what is significant impact.
- Overall concern for data and assumptions used in chinook management. Need to establish additional data collection programs that inform assumptions in modelling and management actions.

Preliminary Sockeye Escapement Data 2019

- Preliminary escapement data available for Early Stuart and Early Summer sockeye.
- Anecdotal escapement for Summers was presented.
- En route mortality for Sockeye that spawn above Big Bar is substantial, appears to be greatest for earlier migrating stocks.
- Early Stuart escapement is lowest on record, by far. Early Summer is third lowest on brood, two years below were in '50s and '60s and do not include fishery removals.

Planning for March JTWG Meeting

- 5 Year Chinook Management Review
- Follow up on Run Reconstruction methodology changes for 2019.
- Sockeye forecast for 2020, and final escapement data for 2019.
- South Coast marine recreational fishery data for 2019.
- Lower Fraser Coho escapement program methodology
- Chinook RPA review

5-Year Chinook Review Conclusions

2012 RD Directive Objective 1: *When in Zone 1, reduce exploitation rates on Fraser River Spring 52 and Summer 52 Chinook by a minimum of 50% from the 50–60% exploitation rates in the early 2000s (resulting in an overall exploitation rate of less than 30%).*

- It is possible that the Total ERs on these SMUs averaged less than 30% in Zone 1.

ER Indices by MU in Zone 1 years

Spring 4(2)	Spring 5(2)	Summer 5(2)
22.4%	22.61%	23.94%

5-Year Chinook Review Conclusions

2012 RD Directive Objective 2: When in Zone 1, distribute the exploitation rate reductions such that the recreational and commercial sectors have a greater overall reduction than First Nations.

- Objective 2 was unlikely to have been achieved; however, considerable uncertainty exists in this conclusion. Reductions in harvest impacts on Spring 52 and Summer 52 Chinook for First Nations FSC fisheries were higher than those estimated for both recreational and commercial sectors.

	Spring 4(2)	Spring 5(2)	Summer 5(2)
FSC	-44.7%	-46.7%	-54.3%
Recreational	-18.7%	2.4%	58.5%
Commercial	-47.9%	42.8%	29.6%

5-Year Chinook Review Conclusions

2012 RD Directive Objective 3: *First Nations fishing for food, social and ceremonial purposes will have priority over other uses and will be provided the majority of the available fishery exploitation.*

- Aggregated First Nations FSC fisheries took a larger proportion of total annual catch than recreational or commercial sectors, FSC only took the majority of the catch for two of the three SMUs, suggesting that Objective 3 was not fully met.

First Nations FSC ERI proportion in Zone 1 years

Spring 4(2)	Spring 5(2)	Summer 5(2)
74.1%	51.5%	40.6%

5-Year Chinook Review Conclusions

2012 RD Directive Objective 4: *Increase the proportion of the Fraser River Spring 52 exploitation rate that is taken by the First Nations FSC fishery.*

- Did not meeting Objective 4. FSC fisheries remained relatively unchanged for Spring 42 Chinook. FSC accounted for a smaller portion of harvest impacts on Spring 5(2) and Summer 5(2) Chinook in recent years compared to the earlier time period.

Proportion of ERI taken in First Nations FSC fisheries

	Spring 4(2)	Spring 5(2)	Summer 5(2)
Baseline ('09-'11)	74.66%	63.12%	53.18%
Zone 1 Years	66.38%	44.22%	28.11%