

DFO Approaches for 2021



UFFCA Fall Meeting

October 21, 2021

Presenter: Rob Martin

Outline

- Staffing Update
- Big Bar (brief)
- Integrated Fisheries Management Plan (IFMP): Guiding Principles and Licencing
 - Chinook
 - Sockeye
 - Pink
- Catch
- Important Dates



Upper Fraser Staff

- Amy Harrison – A/Assistant RM (Prince George)
 - Bonnie Adolph – A/Assistant RM (Lillooet)
 - Dylan Couture – A/Bio (Kamloops)
 - Rob Martin – A/RM (Prince George)
 - Steve Ratko – DFO Catch Monitor (Williams Lake)
 - Linda Stevens – AAA (Williams Lake)
-
- The total number of RM staff dedicated to Upper Fraser work has increased by 2. This is to reflect an increased work load to implement reconciliation.

Big Bar Landslide Update

- Unassisted fish passage in 2021
- Radio tags applied to all salmon species
- Fishway construction halted
- Design and method had to be significantly altered
- Site will continued to be monitored and assessed
 - Joint Executive Steering Committee will continue to function
 - Very high water levels in 2020; Very low water levels in 2021

Chinook

- IFMP: Similar to previous years, DFO managing 5(2) chinook in a highly precautionary manner to allow as many fish to pass through to the spawning grounds as possible.
 - This action included all chinook upstream of Thompson River
- In-season actions and licencing:
 - Short duration chinook openings on Mainstem Fraser and tributaries where abundance identified.
 - Harvest targets and/or opening lengths identified in advance

Chinook - Fraser Spring and Summer 5(2)

Albion Output was:

- A median estimate of 26,550 with a 95% probability interval of 16,000 to 43,000.
- Chinook directed fisheries were planned in July in the Fraser mainstem near WL and Quesnel and in the Chilcotin watershed.
- Chinook catches are currently estimated at:
 - ~100 in the mainstem (Churn to Naver) and
 - ~135 in the Chilcotin watershed.
- **2021 escapement information still being developed**

Sockeye

Option 2: Modified 2020 Escapement Plan

Management Unit	Harvest Rule Parameters		Lower Fishery Reference Point	Upper Fishery Reference Point	Pre-season pMA @p50
	Low Abundance ER (LAER)	TAM Cap			
Early Stuart	10%		50% 108,000	216,000	0.69
Early Summer (w/o misc)	10%		50% 100,000	200,000	0.39
Summer (w/o misc)	10%		50% 1,250,000	2,500,000	0.09
Late (w/o misc)	10%		50% 300,000	600,000	0.96

- Total Allowable Catch (TAC) identified on Summer Sockeye aggregate in early September
 - Chilko, Quesnel, Late Stuart, Stellako
- TAC increased after review of Mission data and more favourable MA
- Two Summer Sockeye fisheries occurred outside of usual DFO framework (opening during an absence of TAC)
 - Chilcotin and Stuart systems

Sockeye – 2021 Aggregate Returns

Management Group	Pre-Season P50 Run Size	End-of-season Run Size	Difference
Early Stuart	18,000	70,000	+289%
Early Summer Run	108,000	120,000	+11%
Summer Run	1,046,000	1,762,000	+68%
Late Run	159,000	597,000	+275%
Total Sockeye	1,331,000	2,549,000	+92%
Fraser Pink	3,009,000	7,986,000	+165%

The Total Fraser Sockeye return is **72% above the brood year** (1.5 million) and 77% below the historical cycle line (11 million).

Fraser River Pink return was 10% below the brood year (8.9M)

Chilko in particular was a much stronger return than anticipated (~900k counted) but Quesnel was lower than forecast (113K vs forecast of 331K)

2021 Escapements still being assessed and developed

Chilko Sockeye

- Comparatively strong return in 2021
- Used approach similar to Excess Salmon to Spawning Requirement (ESSR) outlined in the IFMP (p. 477)

ESSR Fishery	Stock and In-season Assessment Method	In-season Assessment	In-season Assessment Uncertainty	ESSR Harvest Level	
Terminal Enhanced (hatchery or spawning channel)	Weaver- Fishway Gates- Fishway Nadina- Fishway Horsefly Fishway	* Escapement Complete Count	Low	High	>50%
Terminal Wild	Scotch- Fence Chilko- Sonar Quesnel- Sonar Stellako- Sonar Birkenhead- Sonar	* Escapement Complete Count	Low	Medium -High	26-50%
	Upper Barriere- Visual Misc North Thompson- Visual Raft- Visual	**Escapement Index Count	Medium	Medium	11-25%
	Chilliwack- Escapement Projection Pitt- Escapement Projection Late Stuart- Escapement Projection Late Adams- Escapement Projection Seymour- Escapement Projection Harrison- Escapement Projection	*** In-season Run Size Estimate	High	Low	0-10%

Chilko Sockeye continued

- Approach was brand-new this year
 - ESSR designed for Economic Opportunity (EO); adjusted for FSC
- Sonar on Chilko system
- Strong confidence in return and ability to monitor in-season
- Little/no interception of other stocks
- Return above benchmark in Wild Salmon Policy (WSP) of ~360,000
 - Used lower upper benchmark
- Big Bar passage was occurring without assistance
- Chilko return estimate increased to 550,000 Aug. 18 (fishery opened Aug. 19)

Late Stuart Sockeye

- First Nations in the Stuart watershed chose not to fish on Early Stuart sockeye in 2021.
 - No Early Stuart directed licences issued from DFO in 2021
- Instead, fishery interest was to have a small directed harvest on Late Stuart Sockeye.
- Return expected to be below WSP benchmark required for ESSR-type fishery but above lower benchmark.
 - Largest return seen in recent years
- Low Abundance Exploitation Rate (LAER) approach used (p. 453)

Late Stuart Sockeye continued (Rationale)

- The LAER is not a target. The objective of the LAER is to allow as many fish to pass to the spawning grounds as possible while allowing some limited incidental mortality, and in some cases some **limited directed harvest when there is little opportunity for harvest directed on other Fraser Sockeye stock groups or species.**
- Comparatively strong return in 2021 – this is the dominant cycle
- Used previous Early Stuart LAER approach for Late Stuart
- LAER was 10% for all sockeye aggregates in 2021
 - Early Stuart, Early Summer, Summer, Late
- DFO and fishery representatives maintained communication and monitoring for duration of fishery

Pink

- Some Pink-directed FSC fisheries took place
- Pink harvest included on sockeye licences
 - Included on licences where pink are known to be encountered
- Small recreational pink fishery opened on Quesnel system this year
 - Little effort observed

Catch

Area	Management Actions/ Openings	Catch To Date*					
		Sockeye		Chinook		Pink	
		Kept	Released	Kept	Released	Kept	Released
Below Port Mann Bridge	Communal opportunities for Chinook directed fisheries; communal fisheries with allowance for sales (Pink retention only) occurred prior to the IFR Steelhead window closure, Chum FSC fisheries will commence as Steelhead closure comes off.	42	706	2,697	23	4,926	3
Port Mann to Sawmill Creek (Fraser Mainstem)		886	12,098,	19,186	1,074	14,697	6,945
Port Mann to Sawmill Creek (Tributaries)		0	5	55	0	0	0
Sawmill Creek to Texas, including Thompson d/s Bonaparte		1,907	12,391	1,874	70	187	11,748
Texas to Deadman	Fishery has closed for the season.	20,459	675	40	0	16	953
Deadman to Naver (includes tribs)		33,939	354	254	8	68	
Upstream of Naver Confluence (includes tribs)		3,424	0	0	0	0	
Thompson u/s of Bonaparte and tribs		162	40	2,306	0	1,475	

Includes sanctioned and unsanctioned catch
Awaiting some final catch submissions. Catch will increase

Key Upcoming Dates: 2022 IFMP development.

- Late December – a letter with IFMP priorities usually comes out from DFO with a deadline of January 31 for input/comments. (see example from last year).
- Salmon Outlook and State of the Salmon Report - Late December/early January -
- Forum – Jan. 18-20, 2022
- Panel Meeting – Fraser Sockeye forecast – Feb. 14 to 17, 2021
- Forum - March 1 to 3, 2021
- First draft of IFMP – last week of Feb or first week of March.
- PSC meeting where Chinook escapements are released – mid-March.
- Forum - April 12-14, 2022
- Deadline for IFMP Comment – early to mid April.

A scenic landscape photograph showing a dense forest of tall evergreen trees and some deciduous trees with yellowing leaves. The forest is reflected in a calm body of water in the foreground. The sky is clear and blue. The text "Questions? More to come as post-season information is made available." is overlaid on the left side of the image.

Questions? More to come as
post-season information is
made available.