

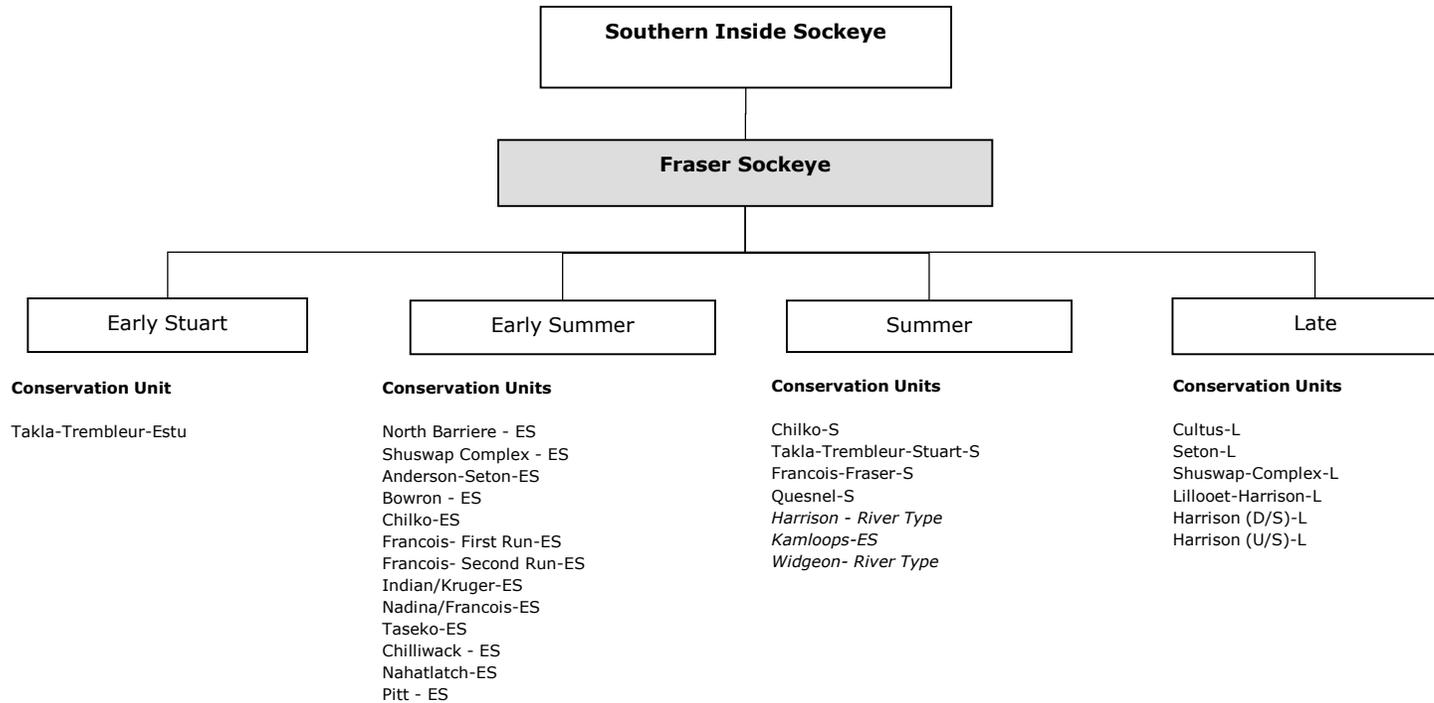
Fraser Sockeye and Pink Update

Fraser and Approach Salmon Forum

April 20-22 2021

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Fraser Sockeye



Note: *italicized* CUs have been managed as part of the Summer run aggregate since the 2012 season.

Key Considerations

- Recent forecast performance relative to the p50
- Forecast return relative to the cycle average
- Two Escapement Options
- Projected escapements relative to cycle average
- Additional Actions: Window Closures?
- Big Bar passage, high snowpack and environmental conditions
- Stock Status

2021 FR SK Escapement Tables

Option 1- Modified Brood Year (2017) Escapement Plan

Management Unit	Harvest Rule Parameters					
	Low Abundance		Lower Fishery	Upper Fishery	Pre-season pMA @p50	
	ER (LAER)	TAM Cap	Reference Point	Reference Point		
Early Stuart	10%		60%	108,000	270,000	0.69
Early Summer (w/o misc)	10%		60%	100,000	250,000	0.39
Summer (w/o misc)	10%		60%	640,000	1,600,000	0.09
Late (w/o misc)	10-20%		60%	300,000	750,000	0.96

Option 2: Modified 2020 Escapement Plan

Management Unit	Harvest Rule Parameters					
	Low Abundance		Lower Fishery	Upper Fishery	Pre-season pMA @p50	
	ER (LAER)	TAM Cap	Reference Point	Reference Point		
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

Differences between options highlighted.

Note the final plan may be different than the two options based on input received.

Escapement Options – Summary

	p10	p25	p50	p75	p90
Option 1					
Allowable Harvest (TF, US, CDN)	31,249	62,460	376,590	1,342,400	2,800,800
Total projected spawners	234,700	471,800	791,000	1,163,200	2,222,000
Option 2					
Allowable Harvest (TF, US, CDN)	31,249	62,460	133,060	918,700	2,194,800
Total projected spawners	234,700	471,800	1,014,000	1,538,200	2,742,000
Difference (Option 2 - Option 1)					
Allowable Harvest (TF, US, CDN)	-	-	(243,530)	(423,700)	(606,000)
Total projected spawners	-	-	223,000	375,000	520,000

- Early Stuarts and Late Run sockeye will likely be in a LAER over the entire forecast range (directed harvest unlikely). Spawners projected for these groups are expected to be below cycle average (except for Lates at p90).
- Early Summer stocks are not projected for harvest until at or above the p75; projected spawners above cycle average at p75.
- May have harvest of Summer stocks at the p50 if Option 1 is chosen (spawners below cycle average until p90); harvest at p75 under Option 2 (spawners above brood year at p50).
- Likely considerable overlap between return groups. Late run LAER may affect potential Summer run harvest.

Fraser River Sockeye – Additional Considerations

- **Early Stuart** – window closure outlined in management plan.
- **Early Summer** – directed harvest, although unlikely, is subject to in-season run size and management adjustment (based on environmental conditions). Additional 1 week window closure coverage to protect weaker early timed populations?
- **Summer** – directed harvest is subject to in-season run size and management adjustment (based on environmental conditions). Harvest may be constrained by other management groups.
- **Late Run** – Given timing overlaps with other management groups and species, Late run will likely be a key constraint to accessing TAC if available or to conduct fisheries directed at other species such as Chinook.

Fraser River Pink

2021 Fraser Pink Escapement Plan

Run Size	Escapement Plan				
Less than 7.059M	Exploitation rate increases linearly from 0% at run size =0 to 15% at run size = 7.059M				
Between 7.059M-20M	Fixed Escapement. Escapement goal = 6,000,000				
Greater than 20M	Exploitation Rate Cap = 70%				
Pre-season Forecast Return					
	p10	p25	p50	p75	p90
forecast	1,701,000	2,229,000	3,009,000	4,051,000	5,375,000
escapement target	1,640,000	2,123,000	2,817,000	3,702,000	4,761,000
allowable ER	4%	5%	6%	9%	11%
Available Harvest (TF, US, CDN)	61,000	106,000	192,000	349,000	614,000

- Will not reach the pink escapement goal throughout the forecast range
- Not expecting directed commercial or recreational fisheries at p50 and lower in Canada
- Expect a low TAC and exploitation rate at the p50
- Late Run sockeye may constrain pink harvest in CA and the US

Fraser River Sockeye – IFMP Feedback

First Nations:

- Mixed support however, generally supportive of Option 2 or not supportive of either option.
- Supports the three week closure to protect the Early Stuart management unit.
- Supports one week extension of the typical closure to protect early-timed stocks of the Early Summer management unit.
- Supports reducing test fishing activities during the early part of the Early Stuart migration.
- Manage Fraser River Sockeye based on more than 4 management groups using a holistic ecosystem-based approach or using a life-cycle model.
- Recommending full protection for early Stuart, Bowron, Nadina, and Taseko stocks downstream of Big Bar Landslide.
- Recommend mixed stock fisheries be shaped to protect sockeye stocks of conservation concern and to allow sufficient abundance for stock-selective harvest on more productive stocks

Marine Conservation Caucus (MCC):

- Not supportive of either option for Fraser Sockeye Management Plan.
- Recommends no fishing, including LAERs, for Fraser sockeye in 2021, including test fishing.

Commercial:

- Supports option 1 for Fraser Sockeye Management Plan.

Fraser River Pink – IFMP Feedback

First Nations:

- Requesting a stop to commercial and recreational harvest until conservation and FSC needs have been met in full.
- Interest in harvest on tributaries throughout the Lower Fraser (terminal fisheries).
- Interested in harvesting Fraser pinks for commercial purposes once FSC needs are fulfilled.
- Recommends DFO's management provides for Upper Fraser First Nations s.35(1) rights based fisheries to harvest pink salmon in 2021.

Commercial:

- With the cancellation of the Fraser Pink 2020 sampling program for out-migrating fry, it is felt that the alternate methodology adopted to create this forecast has produced an overly cautious forecast.
- Concerned with the possibility that the Test Fishing Program may be prematurely terminated, thus potentially impacting any opportunities for Pink salmon fisheries.