

**Questions and/or Requests for Advice from FORUM Participants on Fraser Sockeye
Mar. 1, 2022**

Summary of Questions

1. Do you have any advice on how long the window closure for Early Stuart sockeye should be in 2022? Should there be an additional week added to protect the earliest stocks in the Early Summer aggregate?
2. The Department is seeking feedback on a sharing arrangement for Early Stuart sockeye. A proposal similar to 2018 will be put forward with modifications dependent on the 2022 Forecast for Early Stuart sockeye. Do you have any advice or suggestions for improvements on this proposal?
3. The Department will be seeking feedback on how to manage FSC sockeye fisheries for stocks other than Early Stuart sockeye when there is not enough Total Allowable Catch (TAC) for all to catch the amount as set out in licences issued by DFO.

Questions related to Escapement Options (reference Escapement Options PPT).

4. Given recent returns and uncertainty in the forecast, are there additional actions that should be considered to address returns at the lower end of the forecast?
5. Given it's a dominant Shuswap return year are there additional measures that should be considered for weak stocks within the aggregates.
6. The 2022 draft escapement plans range from what was implemented in the brood year (40% escapement; 60% mortality) to something more conservative (60% escapement; 40% mortality). What do you support?

**Information to support your discussions is provided on the following pages.
The 2022 forecast is on Page 4.**

Length of Early Stuart Window Closure (Question 1)

Do you have any advice on how long the window closure for Early Stuart sockeye should be in 2022? Should there be an additional week added to protect the earliest stocks in the Early Summer aggregate?

In some years, a one week extension of the Early Stuart closure is implemented with the aim of providing some protection to some of the earliest returning Early Summer sockeye (Bowron and Taseko for example). In addition to the window closure, considerations are being given for reducing test fishing activities during the earlier part of the Early Stuart migration. This may take the form of delaying the start of marine gill net test fisheries and/or reducing the number of test fish vessels.

Proposed end dates for a **THREE** and **Four** week window closure:

Areas	Start Date	End Date ~3 Weeks	End Date ~4 weeks
Areas 11 to 17, 19 to 21, 121 and 123 to 127	June 19	July 15	July 22
Areas 18 and 29	June 28	July 21	July 27
Steveston to Mission	June 28	July 21	July 27
Mission to Sawmill	June 30	July 23	July 29
Sawmill to Deadman	July 3	July 25	Aug 1
Deadman-Hixon	July 8	July 30	Aug 6
Hixon to Prince George	July 11	Aug 2	Aug 9
Prince George to Stuart River	July 13	Aug 4	Aug 11

Early Stuart Sockeye Sharing (Question 2)

The Department is seeking feedback on a sharing arrangement for Early Stuart sockeye. A proposal similar to 2018 will be put forward with modifications dependent on the 2022 Forecast for Early Stuart sockeye. Do you have any advice or suggestions for improvements on this proposal?

2022 Early Stuart FSC Sharing at P50 Forecast

March 1, 2022

2022 Early Stuart FSC Sharing

25/02/2022

pre-season pMA

Early Stuart Run Size **105,000**

Total for FSC sharing (under LAER) **9,450**

FN Group	Share of available FSC	Mortalities
Carrier-Sekani TC	1,929	0
Lheidli T'enneh	116	0
Carrier-Chilcotin	38	0
TNG; NSTC; Esket	1,157	0
Whispering Pines - High Bar	38	0
Stl'atl'imx Nation	1,928	0
NWSFA; NNTC	1,928	0
Above Port Mann	1,928	0
Below Port Mann	386	0
Marine incidental		
Total	9,449	0

Implied Spawners to the Grounds

run - Catch	94,500	103,950
pMA	0.89	0.89
DBE	-47.09%	-47.09%
predicted DBE (# fish) = (run-LAER)*DBE	(44,500)	(48,950)
implied spawners to the grounds	50,000	55,000

Appendix A: 2022 Sockeye Forecast by stock and timing group

Run timing group Stocks	Forecast Model	Probability that Return will be at/or Below Specified Run Size				
		10%	25%	50%	75%	90%
Early Stuart	<i>Ricker (Ei)</i>	39,000	63,000	105,000	172,000	268,000
Early Summer Total		384,000	767,000	1,579,000	3,159,000	5,686,000
<i>Total excluding misc. stocks</i>		196,000	370,000	757,000	1,474,000	2,769,000
Bowron	<i>Ricker (Ei)</i>	5,000	11,000	21,000	48,000	87,000
Upper Barriere (Fennell)	<i>Ricker (Pi)4Sibling5</i>	800	2,000	4,000	9,000	19,000
Gates	<i>LLY4Sibling5</i>	11,000	19,000	36,000	70,000	126,000
Nadina	<i>RickerFrDPk4Sibling5</i>	51,000	100,000	193,000	381,000	703,000
Pitt	<i>LLY4Sibling5</i>	13,000	21,000	35,000	58,000	89,000
Scotch	<i>Larkin4Sibling5</i>	45,000	89,000	199,000	403,000	825,000
Seymour	<i>Ricker(Ei)4Sibling5</i>	70,000	128,000	269,000	505,000	920,000
Misc (EShu)	<i>R/S</i>	184,000	388,000	804,000	1,650,000	2,850,000
Misc (Taseko)	<i>R/S</i>	40	100	200	400	600
Misc (Chilliwack)	<i>R/S</i>	2,000	5,000	10,000	20,000	37,000
Misc (Nahatlatch)	<i>R/S</i>	2,000	4,000	8,000	15,000	29,000
Summer Total		1,239,000	2,231,000	4,403,000	8,904,000	17,468,000
<i>Total excluding misc. stocks</i>		1,237,000	2,223,000	4,387,000	8,872,000	17,402,000
Chilko	<i>Ricker(Ei)4Sibling5</i>	482,000	806,000	1,463,000	2,662,000	4,732,000
Late Stuart	<i>Ricker(FrDMn)4Sibling5</i>	80,000	184,000	458,000	1,091,000	2,520,000
Quesnel	<i>Ricker(Ei)</i>	485,000	917,000	1,907,000	4,178,000	8,531,000
Stellako	<i>Larkin4Sibling5</i>	185,000	306,000	536,000	885,000	1,491,000
Harrison	<i>Ricker(Ei)Even3Sibling4</i>	2,000	5,000	13,000	37,000	94,000
Raft	<i>LLY4/Sibling5</i>	3,000	5,000	10,000	19,000	34,000
Misc (N. Thomp. Tribes)	<i>R/S</i>	300	900	2,000	3,000	7,000
Misc (N. Thomp River)	<i>R/S</i>	2,000	7,000	13,000	28,000	57,000
Misc (Widgeon)	<i>R/S</i>	70	300	600	1,000	2,000
Late Total		711,000	1,604,000	3,688,000	8,160,000	18,285,000
<i>Total excluding misc. stocks</i>		709,000	1,597,000	3,672,000	8,132,000	18,234,000
Cultus	<i>PowerJuvPi</i>	400	600	1,000	3,000	5,000
Late Shuswap	<i>Ricker(Ei)</i>	645,000	1,473,000	3,418,000	7,582,000	17,166,000
Portage	<i>RickerCyc</i>	27,000	52,000	107,000	226,000	444,000
Weaver	<i>PowerJuv(Pi)4Sibling5</i>	16,000	36,000	85,000	206,000	423,000
Birkenhead	<i>Ricker(Ei)</i>	21,000	35,000	61,000	115,000	196,000
Misc Harrison/Lillooet	<i>R/S</i>	2,000	7,000	16,000	28,000	51,000
TOTAL SOCKEYE SALMON		2,374,000	4,662,000	9,775,000	20,395,000	41,707,000
<i>Total Sockeye excluding misc. stocks</i>		2,181,000	4,250,000	8,921,000	18,650,000	38,673,000