2018 Fraser Sockeye Questions for Discussion

presented to: First Nations Forum
by: J. Scroggie
March 28, 2018

Outline

- Eight Questions have been put forward with information to support discussion.
- These questions are intended to guide discussion but were not meant to limit feedback.
- A quick update to the test fishing plan will be provided as requested.

Questions 1 to 5:
2018 Escapement Options

Escapement Plan

- Under the Pacific Salmon Treaty conservation is the highest priority of the parties.
- It is Canada's responsibility to provide an escapement plan for Fraser sockeye and pink salmon.
- Once the plan is put forward to the Fraser Panel both Canada and the United States commit to managing fisheries in accordance to the plan.

Escapement Options- Key Questions

1. For 2018, the Department is seeking input on two escapement options and their components. The Department will consider all input provided during final escapement plan development. The final escapement plan may be different from the two options described here based on input received.
2. 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?
3. What are your thoughts on the two LAER options for Early Summer and Summer run sockeye (remain at 10% or increase to 20%) and what are your reasons for the preference?

Escapement Options- Key Questions

4. Are there additional measures that should be considered for specific stocks within the aggregates that are a concern as far as expected escapements, large or weak?
5. Given this is a dominant cycle, outcomes from the plan may result in escapement levels well above cycle average escapements for the aggregate and some individual stocks within. Should additional harvest in those terminal areas where surpluses are expected to occur be considered?

Two Options are provided to stimulate discussion

Option 1- Adjusted Brood Year (2014) Escapement Plan (increase LAERs)

	Harvest Rule Parameters			
Management Unit	Low Abundance ER (LAER)	TAM Cap	Lower Fishery Reference Point	Upper Fishery Reference Point
Early Stuart	10%	60%	108,000	270,000
Early Summer (w/o misc)	20%	65%	180,000	514,000
Summer (w/o misc)	20%	65%	1,020,000	2,914,000
Late (w/o misc)	20%-30%	65%	1,100,000	3,143,000

Option 2- Adjusted 2010 Escapement Plan (decrease Late LAER)

	Harvest Rule Parameters			
Management Unit	Low Abundance ER (LAER)	TAM Cap	Lower Fishery Reference Point	Upper Fishery Reference Point
Early Stuart	10%	60%	108,000	270,000
Early Summer (w/o misc)	10%	60%	180,000	450,000
Summer (w/o misc)	10%	60%	1,020,000	2,550,000
Late (w/o misc)	20%	60%	1,100,000	2,750,000

Early Stuart Options Comparison

Early Stuart	forecast	p10 37,000	p25 54,000	p50 84,000	p75 133,000	p90 199,000
Option 1	Allowable ER	10%	10%	10%	10%	10%
	Projected S (after MA)	19,600	28,700	44,600	70,600	105,700
	Proj. S as % BY S	29%	42%	65%	103%	154%
	Proj. S as % cycle S	59%	86%	134%	212%	318%
Option 2	*same as option 1*					

forecast p-level is below lower fisheries reference point

forecast p-level is between lower & upper fisheries reference point

forecast p-level is above upper fisheries reference point

Early Summer Options Comparison

Early Summer	forecast (incl. misc)	p10 584,000	p25 1,102,000	p50 2,155,000	p75 3,765,000	p90 6,587,000
Option 1	Allowable ER	29%	45%	45%	45%	45%
	Projected S (after MA)	266,600	388,000	757,500	1,321,700	2,309,100
	Proj. S as % BY S	41%	60%	117%	204%	356%
	Proj. S as % cycle S	81%	117%	229%	400%	699%
Option 2	*Allowable ER*	29%	38%	38%	38%	38%
	Projected S (after MA)	266,600	443,400	865,800	1,510,600	2,639,000
	Proj. S as % BY S	41%	68%	134%	233%	407%
	Proj. S as % cycle S	81%	134%	262%	457%	799%

forecast p-level is below lower fisheries reference point

forecast p-level is between lower & upper fisheries reference point

forecast p-level is above upper fisheries reference point

Summers Options Comparison

Summer	forecast (incl. misc)	p10 1,470,000	p25 2,473,000	p50 4,344,000	p75 7,669,000	p90 13,173,000
Option 1	Allowable ER	20%	53%	62%	61%	61%
	Projected S (after MA)	1,063,200	1,062,200	1,515,300	2,694,200	4,616,000
	Proj. S as % BY S	37%	37%	53%	95%	163%
	Proj. S as % cycle S	130%	130%	186%	330%	566%
Option 2	Allowable ER	20%	53%	56%	56%	56%
	Projected S (after MA)	1,063,200	1,062,200	1,731,800	3,079,100	5,275,300
	Proj. S as % BY S	37%	37%	61%	109%	186%
	Proj. S as % cycle S	130%	130%	212%	378%	647%

forecast p-level is below lower fisheries reference point

forecast p-level is between lower & upper fisheries reference point

forecast p-level is above upper fisheries reference point

Lates Options Comparison

Lates	forecast (incl. misc)	p10 3,174,000	p25 4,794,000	p50 7,398,000	p75 11,370,000	p90 16,934,000
Option 1	Allowable ER	50%	50%	50%	50%	50%
	Projected S (after MA)	1,113,100	1,681,400	2,595,200	3,989,500	5,943,400
	Proj. S as % BY S	48%	73%	113%	173%	258%
	Proj. S as % cycle S	42%	63%	98%	150%	224%
Option 2	Allowable ER	43%	43%	43%	43%	43%
	Projected S (after MA)	1,272,000	1,921,700	2,966,000	4,559,400	6,792,400
	Proj. S as % BY S	55%	83%	129%	198%	295%
	Proj. S as % cycle S	48%	72%	112%	172%	256%

forecast p-level is below lower fisheries reference point

forecast p-level is between lower & upper fisheries reference point

forecast p-level is above upper fisheries reference point

Option 1- Projected Escapements Relative to Cycle Average and Brood Year

Run timing group / Stocks	Total Escapement Cycle Ave	Total Escapement Brood Year	Comparisons @p10 Cycle Ave	Comparisons @p10 Brood Year	Comparisons @p25 Cycle Ave	Comparisons @p25 Brood Year	Comparisons @p50 Cycle Ave	Comparisons @p50 Brood Year	Comparisons @p75 Cycle Ave	Comparisons @p75 Brood Year
Early Stuart	**33,275**	**68,613**	**59%**	**29%**	**86%**	**42%**	**134%**	**65%**	**212%**	**103%**
Early Summer	**330,355**	**647,784**	**81%**	**41%**	**117%**	**60%**	**229%**	**117%**	**400%**	**204%**
Bowron	5,767	12,210	55%	26%	73%	34%	121%	57%	212%	100%
Upper Barriere	5,365	11,467	76%	36%	91%	43%	162%	76%	300%	140%
Gates	4,274	16,928	117%	30%	164%	41%	311%	79%	622%	157%
Nadina	4,127	61,389	492%	33%	686%	46%	1296%	87%	2464%	166%
Pitt	25,593	36,507	52%	36%	58%	41%	96%	67%	152%	107%
Scotch	141,006	135,134	29%	30%	41%	43%	82%	85%	186%	194%
Seymour	92,481	114,013	103%	83%	132%	107%	210%	170%	335%	272%
Misc (EShu)	43,798	252,793	192%	33%	332%	58%	763%	132%	1233%	214%
Misc (Taseko)	1,733	114	0%	0%	6%	88%	12%	175%	17%	263%
Misc (Chilliwack)	2,620	3,470	19%	14%	38%	29%	88%	66%	198%	150%
Misc (Nahatlatch)	5,324	3,873	26%	36%	45%	62%	85%	116%	163%	225%
Summer	**820,977**	**2,862,856**	**130%**	**37%**	**129%**	**37%**	**185%**	**53%**	**328%**	**94%**
Chilko	375,259	1,029,313	161%	59%	154%	56%	211%	77%	358%	131%
Late Stuart	36,661	50,691	109%	79%	117%	30%	191%	48%	372%	94%
Quesnel	211,016	832,835	100%	25%	103%	75%	142%	103%	242%	175%
Stellako	124,282	507,777	134%	33%	120%	29%	158%	39%	255%	62%
Harrison	63,070	399,557	12%	2%	18%	3%	38%	6%	100%	16%
Raft	5,197	17,102	279%	85%	258%	78%	323%	98%	531%	161%
Misc (N. Thomp. Tribs)	1,250	1,170	112%	120%	136%	145%	200%	214%	424%	453%
Misc (N. Thomp River)	3,121	21,602	580%	84%	689%	100%	942%	136%	1983%	287%
Misc (Widgeon)	1,121	2,809	54%	21%	62%	25%	71%	28%	152%	61%
Late	**2,647,383**	**2,297,272**	**42%**	**48%**	**64%**	**73%**	**98%**	**113%**	151%	174%
Cultus	14,602	4,411	1%	2%	1%	5%	3%	9%	6%	20%
Late Shuswap	2,438,497	2,208,177	44%	48%	65%	72%	99%	110%	150%	165%
Portage	13,650	24,275	56%	32%	113%	63%	262%	147%	601%	338%
Weaver	58,362	24,646	23%	54%	47%	111%	90%	213%	191%	452%
Birkenhead	122,272	35,763	18%	60%	31%	107%	56%	191%	100%	340%
Misc. non-Shuswap	4,803	6,112	77%	61%	137%	108%	267%	209%	510%	401%

= or > 125%
< 125%
< 75%
< 25%

Option 2- Projected Escapements Relative to Cycle Average and Brood Year

Run timing group / Stocks	Total Escapement Cycle Ave	Total Escapement Brood Year	Comparisons @p10 Cycle Ave	Comparisons @p10 Brood Year	Comparisons @p25 Cycle Ave	Comparisons @p25 Brood Year	Comparisons @p50 Cycle Ave	Comparisons @p50 Brood Year	Comparisons @p75 Cycle Ave	Comparisons @p75 Brood Year
Early Stuart	**33,275**	**68,613**	**59%**	**29%**	**86%**	**42%**	**134%**	**65%**	**212%**	**103%**
Early Summer	**330,355**	**647,784**	**81%**	**41%**	**134%**	**68%**	**262%**	**134%**	**457%**	**233%**
Bowron	5,767	12,210	55%	26%	83%	39%	139%	66%	243%	115%
Upper Barriere	5,365	11,467	76%	36%	104%	49%	186%	87%	343%	160%
Gates	4,274	16,928	117%	30%	187%	47%	356%	90%	711%	180%
Nadina	4,127	61,389	492%	33%	783%	53%	1480%	100%	2816%	189%
Pitt	25,593	36,507	52%	36%	66%	47%	110%	77%	174%	122%
Scotch	141,006	135,134	29%	30%	47%	49%	93%	98%	212%	222%
Seymour	92,481	114,013	103%	83%	151%	122%	240%	195%	383%	310%
Misc (EShu)	43,798	252,793	192%	33%	379%	66%	872%	151%	1410%	244%
Misc (Taseko)	1,733	114	0%	0%	6%	88%	12%	175%	17%	263%
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Misc (Nahatlatch)	5,324	3,873	26%	36%	53%	72%	98%	134%	188%	258%
Summer	**820,977**	**2,862,856**	**130%**	**37%**	**129%**	**37%**	**211%**	**60%**	**375%**	**108%**
Chilko	375,259	1,029,313	161%	59%	154%	56%	241%	88%	409%	149%
Late Stuart	36,661	50,691	109%	79%	117%	30%	218%	55%	426%	108%
Quesnel	211,016	832,835	100%	25%	103%	75%	163%	118%	277%	200%
Stellako	124,282	507,777	134%	33%	120%	29%	180%	44%	291%	71%
Harrison	63,070	399,557	12%	2%	18%	3%	44%	7%	114%	18%
Raft	5,197	17,102	279%	85%	258%	78%	369%	112%	606%	184%
Misc (N. Thomp. Tribs)	1,250	1,170	112%	120%	136%	145%	224%	239%	488%	521%
Misc (N. Thomp River)	3,121	21,602	580%	84%	689%	100%	1077%	156%	2265%	327%
Misc (Widgeon)	1,121	2,809	54%	21%	62%	25%	89%	36%	169%	68%
Late	**2,647,383**	**2,297,272**	**48%**	**55%**	**73%**	**84%**	**112%**	**129%**	172%	198%
Cultus	14,602	4,411	1%	2%	1%	5%	3%	9%	8%	25%
Late Shuswap	2,438,497	2,208,177	50%	55%	75%	82%	114%	126%	171%	189%
Portage	13,650	24,275	64%	36%	129%	73%	299%	168%	686%	386%
Weaver	58,362	24,646	26%	62%	53%	127%	103%	244%	218%	517%
Birkenhead	122,272	35,763	20%	69%	36%	122%	64%	218%	114%	389%
Misc. non-Shuswap	4,803	6,112	87%	69%	156%	123%	304%	239%	583%	458%

= or > 125%
< 125%
< 75%
< 25%

Escapement Options- Summary

- It is expected that there will be significant harvestable surplus at the full forecast range (p10-p90)

- Under current assumptions projected spawners for Early Stuart, Early Summer and Summer will be well above the cycle average and near average for the Late Run for both escapement options at the p50.

- If the run is lower relative to forecast (similar to previous 3 years) the returns relative to cycle average are near or lower than cycle average except for Summer Run.

Escapement Options- Summary

- The majority of the harvestable surplus is expected to be in the late run Shuswap group with Early Shuswap and some Summer run stocks (Chilko and Stellako) also contributing significantly.

- Given the weak forecast for Cultus sockeye in 2018 it is expected that the recovery objective for Cultus sockeye will not be met. Therefore, it is unlikely that the Late run exploitation rate identified in the escapement plan will be achieved. Instead the allowable Late run exploitation rate will equal the Late run LAER in areas where Cultus sockeye may be encountered.

Early Stuart Sockeye – Questions 6 and 7

Do you have any advice on how long (approximately three weeks or four weeks) the window closure for Early Stuart sockeye should be in 2018?

The Department is seeking feedback on a sharing arrangement for Early Stuart sockeye. A proposal similar to 2017 will be put forward with modifications dependent on the 2018 Forecast for Early Stuart sockeye. Do you have any advice or suggestions for improvements on this proposal?

Low amounts of TAC

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.

Test Fishing Update

Test Fishery	Start Date	End Date
Area 20 gill net	Wed. June 20 (was June 22)	Thurs. Aug. 16
Whonnock gill net	Fri. June 22 (was June 25)	Thurs. Oct. 4
Cottonwood gill net	Thurs. Jul 12 (was July 9)	Wed. Sept. 26
Area 7 Reef net	Mon. July 23	Sat. Aug. 18
Area 20 Purse Seine	Wed. July 25	Thurs. Aug. 30
Area 29 Troll	Fri. Aug. 17**	Sun. Sept. 16
Area 12 gill net	Thurs. July 12	Tues. Aug. 14
Area 12 purse seine	Tues. July 24	Tues. Sept. 11
Area 13 purse seine	Thurs. July 26	Thurs. Sept. 6 (was Sept. 13)

*Changed Whonnock start date – moved from Saturday June 23 to Friday June 22 to avoid starting on a weekend.
**Changed Area 29 Troll start date – moved from Saturday August 18 to Friday August 17 to avoid starting on a weekend.