



2026 Pre-season Escapement Planning Fraser Sockeye Salmon Fisheries

Fraser Forum
24 February 2026



Overview

- Fishery objectives
- Escapement planning process, including development of the harvest control rule
- Management considerations, and the available options to achieve objectives
- Draft escapement plan options

FISHERY OBJECTIVES



Fishery Objectives

- Integrated Fisheries Management Plan summarizes high level objectives pertaining to rebuilding/conserving stocks of concern, as well as access and allocation objectives
- Objectives are operationalized and refined annually through the escapement plan and associated management measures.
- Objectives exist for both international and Canadian obligations



Fishery Objectives

- International objective:
 - Manage Canadian treaty fisheries to ensure that obligations within the Pacific Salmon Treaty are achieved.
- For Fraser Sockeye, see Chapter 4, para 10:

The Parties agree that Panel management actions should meet the following objectives, listed in order of priority:

- (a) obtain spawning escapement goals by stock or stock grouping;
- (b) meet Treaty defined international allocation; and
- (c) achieve domestic objectives.



Fishery Objectives

- Conservation objectives are quantified in the harvest control rule.
- Domestic access and allocation objectives:
 - Manage fisheries to ensure that, after conservation needs are met, First Nations' food, social and ceremonial requirements and treaty obligations to First Nations have first priority in salmon allocations in accordance with the Allocation Policy for Pacific Salmon
 - Manage recreational and commercial fisheries for sustainable benefits consistent with established policies.
- Escapement planning is the key means to the ends in achieving fishery objectives for Fraser Sockeye

ESCAPEMENT PLANNING PROCESS



Why have an Escapement Plan?

An escapement plan defines the number of fish required to migrate to natal lakes and streams to spawn and sustain populations

- Pursuant to the Salmon Treaty, Canada is responsible for establishing an annual escapement plan. The plan is adopted via the Minister, through a process with the Fraser Salmon Management Board.
- The Fraser River Panel relies on the escapement plan and in-season information produced by the Pacific Salmon Commission (PSC) Secretariat to inform fishery decisions.
- The current iteration of the escapement plan is an **abundance-based harvest control rule**.
 - Fishing is constrained at low abundance and fishing pressure may increase as abundance increases.



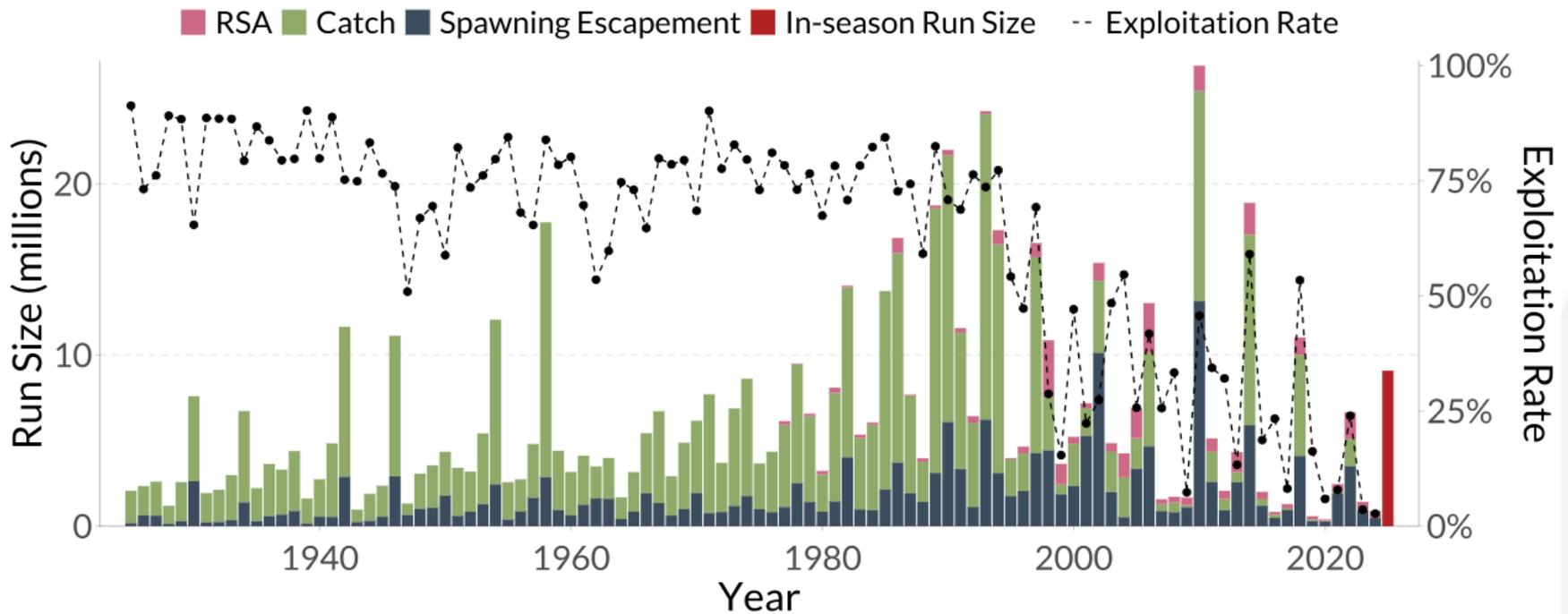
Recent History of Escapement Planning

- Over the past 80 years average annual abundance has increased, peaked, and declined
 - less than 7 million in 1950s; 12 million in the 1990s; about 7 million in recent years
 - AND several individual stocks have declined severely →constraining opportunities in mixed-stock fisheries
- 1987 Rebuilding Plan coincided with significant decrease in exploitation rate and increased escapements. 2003 FRSSI process again resulted in reduced exploitation rates
 - 75% in 1980s; 35% in 2000s; 25% in past 10 years



Fraser Sockeye Run Size, Exploitation Rates

Total Fraser



Annual sockeye run size estimates: the sum of the spawners estimates (the total number of salmon that successfully return to the spawning grounds in a given year), catch (the total number of salmon caught in fisheries), and run size adjustment (RSA, based on post-season evaluations of factors influencing en route mortality and evaluations of biases in estimates of spawners and catch). The exploitation rate is the percent of the total run caught in fisheries. See **Documentation** for more details.

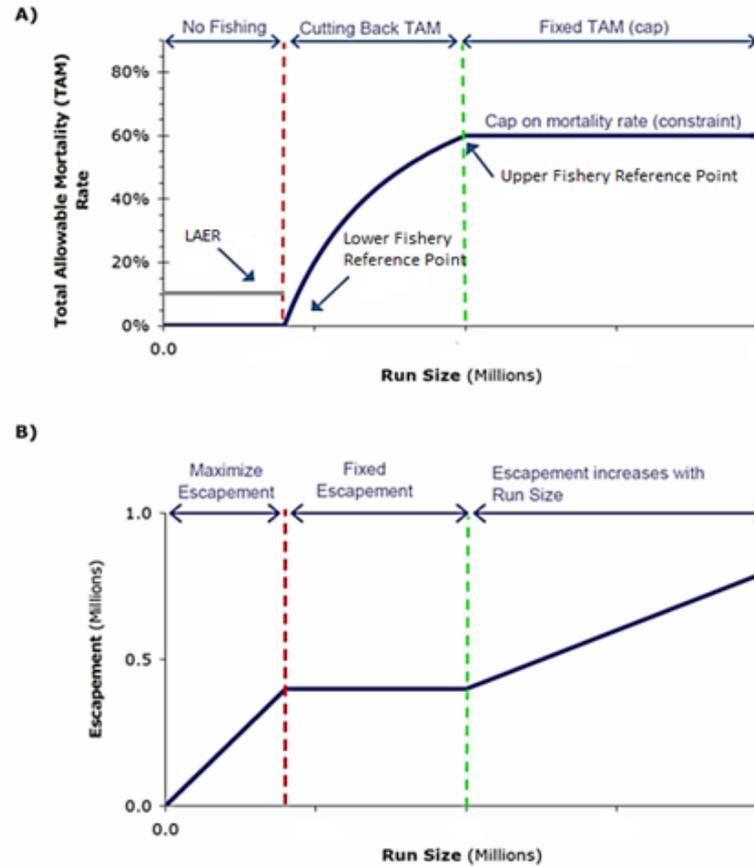


Fishery objectives and Harvest Control Rules

- **Abundance-based** harvest control rule
 - Specifies maximum mortality at different run sizes
 - Fishing is constrained at low abundance, and fishing pressure may increase as abundance increases → responsive to in-season data about abundance
- Fraser sockeye **escapement is managed in 4 groups** (Early Stuart, Early Summer, Summer, Late)
 - Escapement strategies for each management group are **designed to protect component stocks and stabilize total harvest** across all sectors.
- Without objectives and HCR, there is no **meaningful way to test whether actions will support the long-term sustainability**
 - Develop management reference points that provide a **long-term strategy**

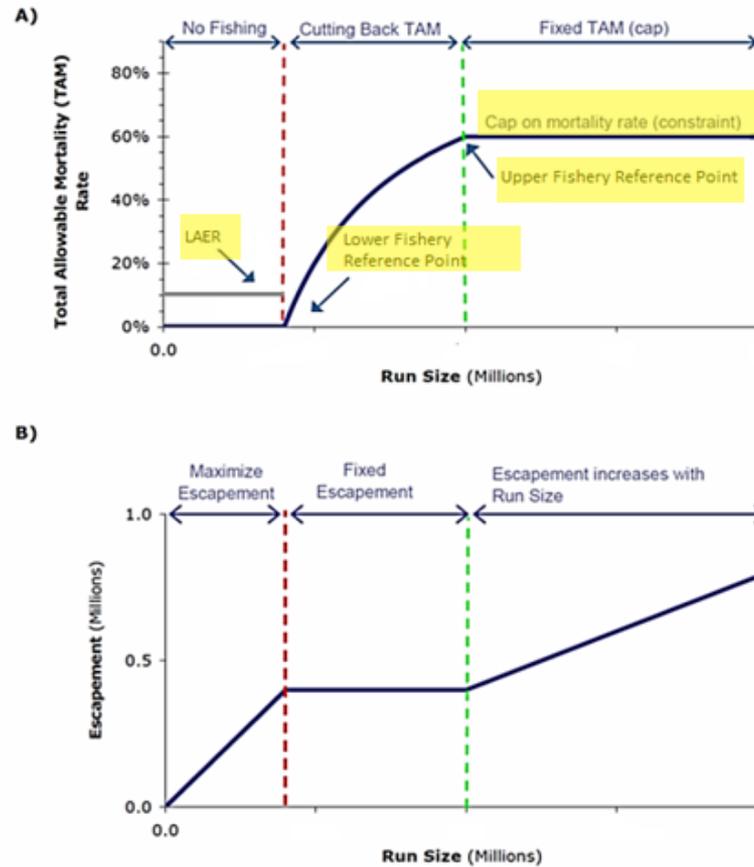


Harvest Control Rule





Harvest Control Rule



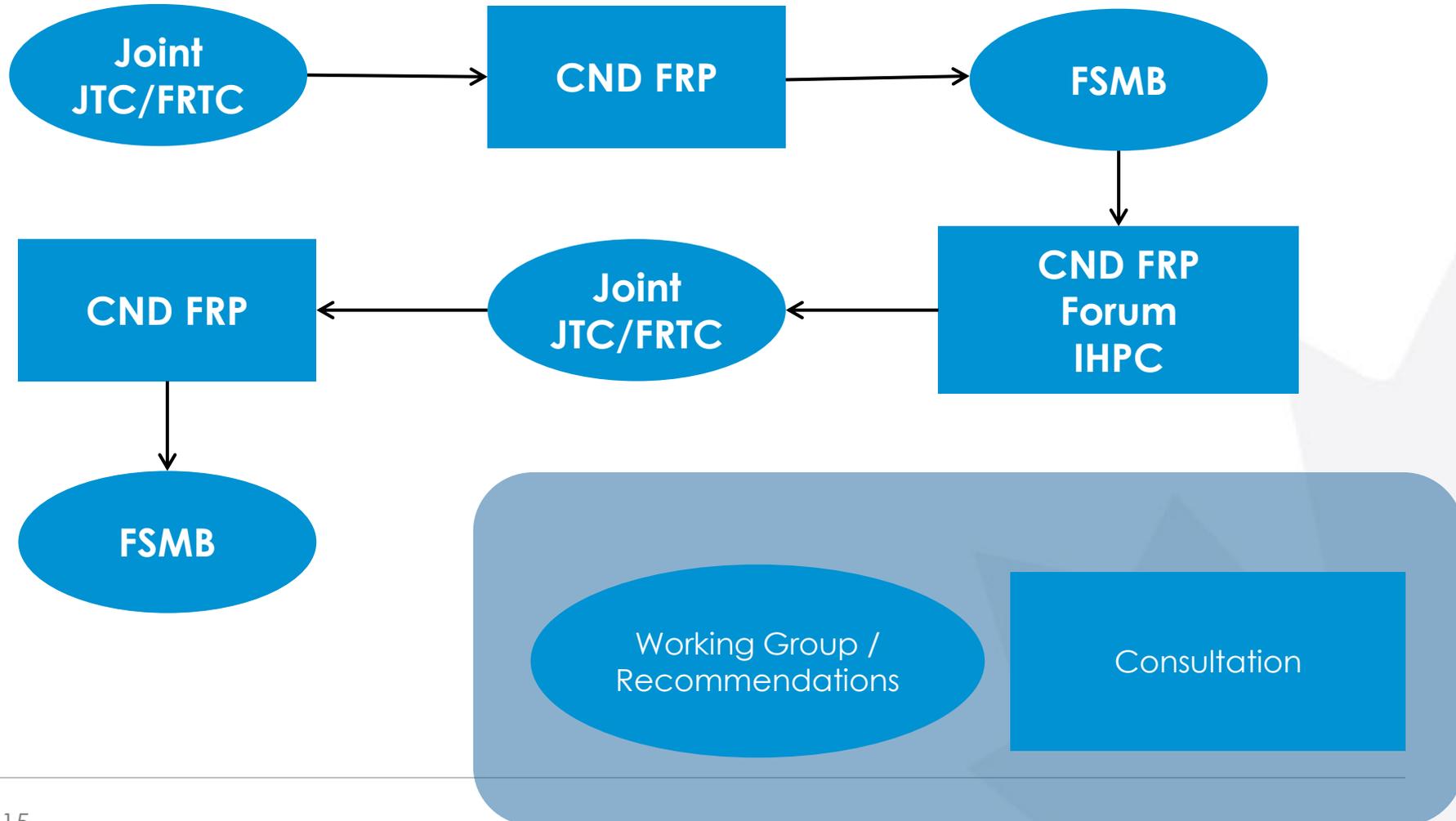


Fraser Sockeye Escapement Planning

- Collaborative development: technical staff provide options to First Nations (FSMC) and DFO at the FSMB
 - Goal: develop options (three options for 2026) that demonstrate a range of potential outcomes within the existing HCR framework
- Escapement targets (LFRPs) and mortality caps (TAMs)¹ were adjusted to modify the outcomes (escapement and harvest), while remaining consistent with the precautionary approach to fisheries management
- Adjustments to the OCPs were informed by previous escapement planning process (e.g., FRSSI) and past plans (IFMP consultation)



Planning and Consultation Routing



ESCAPEMENT PLAN OPTIONS

MANAGEMENT CONSIDERATIONS, AND ESCAPEMENT PLAN OPTIONS



2026 In-season management considerations

- Run size, timing, diversion rate and stock composition*
- River conditions
- Differences between estimates





Draft Fraser Sockeye Escapement Options

Option 1 - Escapement Weighted

Management Unit	Harvest Rule Parameters				Pre-season pMA @p50
	Low Abundance ER (LAER)	TAM Cap	Lower Fishery Reference Point	Upper Fishery Reference Point	
Early Stuart	10%	50%	350,000	700,000	1.08
Early Summer (w/o	10%	50%	260,000	520,000	0.59
Summer (w/o misc)	10%	50%	1,437,000	2,874,000	0.09
Late (w/o misc)	10%	50%	1,200,000	2,400,000	0.39

Option 2 - Harvest Weighted

Management Unit	Harvest Rule Parameters				Pre-season pMA @p50
	Low Abundance ER (LAER)	TAM Cap	Lower Fishery Reference Point	Upper Fishery Reference Point	
Early Stuart	10%	60%	350,000	875,000	1.08
Early Summer (w/o	20%	60%	180,000	450,000	0.59
Summer (w/o misc)	20%	60%	1,020,000	2,550,000	0.09
Late (w/o misc)	20%	60%	1,100,000	2,750,000	0.39

Option 3 - Hybrid

Management Unit	Harvest Rule Parameters				Pre-season pMA @p50
	Low Abundance ER (LAER) ^a	TAM Cap	Lower Fishery Reference Point	Upper Fishery Reference Point	
Early Stuart	10%	60%	350,000	875,000	1.08
Early Summer (w/o	10-20%	60%	260,000	650,000	0.59
Summer (w/o misc)	10-20%	60%	1,437,000	3,593,000	0.09
Late (w/o misc)	10-20%	60%	1,200,000	3,000,000	0.39



Draft Fraser Sockeye Escapement Options - MU Outputs

- 2026 is a 'dominant' cycle year for Fraser Sockeye typically indicative of higher abundance than other cycles
- Under each option, harvestable surplus anticipated at lower forecast for E. Summers and Summers and median forecast for Lates.
 - Escapement targets and harvestable surplus vary among options
- Early Stuarts are expected to be in a LAER (no surplus) across the full forecast range



Draft Fraser Sockeye Escapement Options

- Re-evaluation of OCPs for achieving Early Stuart objectives
 - Recovery objectives remain consistent with past years (increase escapement, limit ER) and recovery plans
 - Escapement targets were increased considerably (350K – WSP) and TAM Caps were aligned with other MUs – applied across all options
 - OCPs differ from recent years but operationally performs similar and continues to address conservation concerns in transparent manner.
- The JTC is currently exploring consideration for a variable LAER that would transition to a higher exploitation rate (increased LAER) when no harvestable surplus is identified.
 - Considerations would be informed by technical criteria (e.g., escapement targets) and in consideration of in-season information (e.g., run size and MAs)



Draft Fraser Sockeye Escapement Options

- Overall, Option 1 provides increased escapement and reduced harvestable surplus. Conversely, Option 2 provides additional harvestable surplus with lower escapements. Option 3 achieves similar outcomes as 1 at low run sizes and similar outcomes as 2 at higher.

2026 Total Fraser Sockeye Exploitation and Projected Spawners

	p10	p25	p50	p75	p90
Option 1 - Escapement Weighted					
Max Allowable Exploitation Rate	10%	23%	35%	37%	37%
Allowable Fishing Mortality (TF, US, CDN)	195,351	855,251	2,743,518	6,058,294	11,431,364
Max Allowable Harvest (excl. LAER)	-	765,171	2,737,251	6,046,045	11,408,616
US TAC	-	120,891	444,089	988,258	1,872,472
Can TAC (incl. AFE)	-	644,280	2,293,162	5,057,787	9,536,143
Total projected spawners	1,469,200	2,372,800	3,974,600	8,155,600	15,285,300
Option 2 - Harvest Weighted					
Max Allowable Exploitation Rate	20%	40%	46%	50%	50%
Allowable Fishing Mortality (TF, US, CDN)	388,905	1,520,115	3,535,596	8,090,203	15,224,247
Max Allowable Harvest (excl. LAER)	-	1,343,071	3,529,329	8,077,954	15,201,499
US TAC	-	218,125	576,977	1,325,305	2,498,908
Can TAC (incl. AFE)	-	1,124,946	2,952,353	6,752,649	12,702,590
Total projected spawners	1,306,700	1,809,900	3,326,600	6,535,100	12,247,900
Option 3 - Hybrid					
Max Allowable Exploitation Rate	10%	23%	44%	50%	50%
Allowable Fishing Mortality (TF, US, CDN)	195,351	855,251	3,394,996	8,090,203	15,224,247
Max Allowable Harvest (excl. LAER)	-	765,171	3,388,729	8,077,954	15,201,499
US TAC	-	122,772	553,778	1,325,305	2,498,908
Can TAC (incl. AFE)	-	642,399	2,834,952	6,752,649	12,702,590
Total projected spawners	1,469,000	2,372,800	3,427,800	6,535,100	12,247,800

Note: difference between TACs and max allowable harvest is due to test fishery deductions

Directed Harvest



Projected Spawners and Exploitation

	forecast	p10	p25	p50	p75	p90
Early Stuart		16,972	31,154	62,667	122,491	227,480
Option 1- Escapement Weighted	Max. Allowable ER	10%	10%	10%	10%	10%
	Allowable FM	1,697	3,115	6,267	12,249	22,748
	Projected S (after MA)	7,300	13,500	27,100	52,900	98,300
	Proj. S as % BY S	16%	30%	61%	118%	220%
	Proj. S as % cycle S	20%	38%	76%	148%	275%
Option 3 - Hybrid	Max. Allowable ER	10%	10%	10%	10%	10%
	Allowable FM	1,697	3,115	6,267	12,249	22,748
	Projected S (after MA)	7,300	13,500	27,100	52,900	98,300
	Proj. S as % BY S	16%	30%	61%	118%	220%
	Proj. S as % cycle S	20%	38%	76%	148%	275%
Option 2 - Harvest Weighted	Max. Allowable ER	10%	10%	10%	10%	10%
	Allowable FM	1,697	3,115	6,267	12,249	22,748
	Projected S (after MA)	7,300	13,500	27,100	52,900	98,300
	Proj. S as % BY S	16%	30%	61%	118%	220%
	Proj. S as % cycle S	20%	38%	76%	148%	275%
Early Summer	forecast (incl. misc)	317,586	606,634	1,163,677	2,048,770	3,211,095
Option 1- Escapement Weighted	Max. Allowable ER	10%	19%	21%	21%	21%
	Allowable FM	31,800	112,700	246,200	433,300	680,200
	Projected S (after MA)	181,500	313,400	581,800	1,024,400	1,605,700
	Proj. S as % BY S	33%	57%	107%	188%	294%
	Proj. S as % cycle S	48%	83%	155%	272%	427%
Option 3 - Hybrid	Max. Allowable ER	10%	19%	37%	37%	37%
	Allowable FM	31,800	112,700	429,700	756,400	1,186,500
	Projected S (after MA)	181,300	313,400	465,500	819,500	1,284,400
	Proj. S as % BY S	33%	57%	85%	150%	235%
	Proj. S as % cycle S	48%	83%	124%	218%	341%
Option 2 - Harvest Weighted	Max. Allowable ER	20%	37%	37%	37%	37%
	Allowable FM	63,500	224,200	429,700	756,400	1,186,500
	Projected S (after MA)	161,300	242,600	465,500	819,500	1,284,500
	Proj. S as % BY S	30%	44%	85%	150%	235%
	Proj. S as % cycle S	43%	64%	124%	218%	341%
	Incidental Fishing Mortality (LAER)					
	Directed Harvest					

- Consistent plan with consistent outcomes.
- No harvestable surplus, exceeding cycle average at higher run sizes
- Exceeds cycle average at lower run sizes with reduced harvest (FM) .



Projected Spawners and Exploitation

		p10	p25	p50	p75	p90
Summer	forecast (incl. misc)	1,264,402	2,259,971	4,304,784	8,685,942	16,475,360
Option 1- Escapement Weighted	Max. Allowable ER	10%	29%	46%	46%	46%
	Allowable FM	126,440	652,471	1,965,192	3,965,371	7,521,380
	Projected S (after MA)	1,046,900	1,478,900	2,152,400	4,342,900	8,237,700
	Proj. S as % BY S	54%	76%	110%	223%	423%
	Proj. S as % cycle S	104%	147%	214%	431%	817%
Option 3 - Hybrid	Max. Allowable ER	10%	29%	57%	57%	57%
	Allowable FM	126,440	652,471	2,433,170	4,909,465	9,312,116
	Projected S (after MA)	1,046,900	1,478,900	1,721,900	3,474,400	6,590,200
	Proj. S as % BY S	54%	76%	88%	178%	338%
	Proj. S as % cycle S	104%	147%	171%	345%	654%
Option 2 - Harvest Weighted	Max. Allowable ER	20%	50%	57%	57%	57%
	Allowable FM	252,880	1,118,871	2,433,170	4,909,465	9,312,116
	Projected S (after MA)	930,600	1,049,800	1,721,900	3,474,400	6,590,200
	Proj. S as % BY S	48%	54%	88%	178%	338%
	Proj. S as % cycle S	92%	104%	171%	345%	654%
Lates	forecast (incl. misc)	354,136	869,643	2,212,259	5,471,148	10,686,471
Option 1- Escapement Weighted	Max. Allowable ER	10%	10%	24%	30%	30%
	Allowable FM	35,414	86,964	525,859	1,647,374	3,207,036
	Projected S (after MA)	233,500	567,000	1,213,300	2,735,400	5,343,600
	Proj. S as % BY S	25%	62%	132%	298%	582%
	Proj. S as % cycle S	9%	23%	48%	109%	213%
Option 3 - Hybrid	Max. Allowable ER	10%	10%	24%	44%	44%
	Allowable FM	35,414	86,964	525,859	2,412,089	4,702,883
	Projected S (after MA)	233,500	567,000	1,213,300	2,188,300	4,274,900
	Proj. S as % BY S	25%	62%	132%	238%	466%
	Proj. S as % cycle S	9%	23%	48%	87%	171%
Option 2 - Harvest Weighted	Max. Allowable ER	20%	20%	30%	44%	44%
	Allowable FM	70,827	173,929	666,459	2,412,089	4,702,883
	Projected S (after MA)	207,500	504,000	1,112,100	2,188,300	4,274,900
	Proj. S as % BY S	23%	55%	121%	238%	466%
	Proj. S as % cycle S	8%	20%	44%	87%	171%
Incidental Fishing Mortality (LAER)						
Directed Harvest						

- Exceeds Cycle avg at lower run sizes for 1 & 3.
- Increased harvest under Option 2
- Below cycle avg at low to moderate run sizes.
 - Late Shuswap
- Increased harvest at higher run sizes



Run timing group Stocks	Total Escapement		Option 1 Comparisons @p25		Option 2 Comparisons @p25		Option 3 Comparisons @p25	
	Cycle Ave	Brood Year	Cycle Ave	Brood Year	Cycle Ave	Brood Year	Cycle Ave	Brood Year
Early Stuart	35,682	44,780	38%	30%	38%	30%	38%	30%
Early Summer	376,440	545,575	83%	57%	64%	44%	83%	57%
Bowron	5,974	3,047	49%	96%	38%	74%	49%	96%
Upper Barriere	5,573	4,433	42%	53%	32%	41%	42%	53%
Gates	4,939	13,081	93%	35%	72%	27%	93%	35%
Nadina	29,416	329,292	608%	54%	470%	42%	608%	54%
Pitt	25,746	22,469	59%	68%	46%	53%	59%	68%
Scotch	126,964	63,780	33%	65%	25%	50%	33%	65%
Seymour	102,343	29,457	25%	87%	19%	67%	25%	87%
Misc (EShu)	66,630	69,416	58%	56%	45%	43%	58%	56%
Misc (Taseko)	1,169	1,869	47%	29%	36%	n/a	47%	n/a
Misc (Chilliwack)	2,738	3,524	44%	34%	36%	28%	44%	34%
Misc (Nahatlatch)	4,947	5,207	36%	34%	28%	27%	36%	34%
Summer	1,007,878	1,948,939	147%	76%	104%	54%	147%	76%
Chilko	437,202	886,107	150%	74%	106%	52%	150%	74%
Late Stuart	43,061	146,390	247%	73%	175%	52%	247%	73%
Quesnel	294,686	740,527	180%	72%	128%	51%	180%	72%
Stellako	143,838	125,585	95%	109%	67%	77%	95%	109%
Harrison	74,774	40,780	39%	72%	28%	51%	45%	82%
Raft	5,603	3,745	287%	429%	204%	305%	287%	429%
Misc (N. Thomp. Tribs)	422	444	38%	36%	26%	25%	38%	36%
Misc (N. Thomp River)	7,121	5,086	18%	25%	13%	18%	18%	25%
Misc (Widgeon)	1,172	276	3%	11%	2%	7%	3%	11%
Late	2,503,089	918,187	23%	62%	20%	55%	23%	62%
Cultus	12,874	957	3%	47%	3%	42%	3%	47%
Late Shuswap	2,307,591	710,157	13%	42%	11%	37%	13%	42%
Portage	15,293	18,187	217%	183%	193%	163%	217%	183%
Weaver	56,400	90,418	48%	30%	43%	27%	48%	30%
Birkenhead	108,238	97,684	194%	215%	156%	173%	194%	215%
Misc. non-Shuswap	2,693	822	27%	90%	25%	84%	27%	94%



Option 1

Option 2

Option 3

Run timing group Stocks	Total Escapement		Comparisons @p50		Comparisons @p50		Comparisons @p50	
	Cycle Ave	Brood Year	Cycle Ave	Brood Year	Cycle Ave	Brood Year	Cycle Ave	Brood Year
Early Stuart	35,682	44,780	76%	61%	76%	61%	76%	61%
Early Summer	376,440	545,575	155%	107%	124%	85%	124%	85%
Bowron	5,974	3,047	87%	170%	69%	136%	69%	136%
Upper Barriere	5,573	4,433	87%	110%	70%	88%	70%	88%
Gates	4,939	13,081	168%	63%	134%	51%	134%	51%
Nadina	29,416	329,292	1047%	94%	838%	75%	838%	75%
Pitt	25,746	22,469	99%	114%	80%	91%	80%	91%
Scotch	126,964	63,780	66%	132%	53%	106%	53%	106%
Seymour	102,343	29,457	46%	159%	37%	127%	37%	127%
Misc (EShu)	66,630	69,416	132%	126%	105%	101%	105%	101%
Misc (Taseko)	1,169	1,869	166%	104%	133%	83%	133%	83%
Misc (Chilliwack)	2,738	3,524	134%	104%	107%	83%	107%	83%
Misc (Nahatlatch)	4,947	5,207	110%	105%	88%	84%	88%	84%
Summer	1,007,878	1,948,939	214%	110%	171%	88%	171%	88%
Chilko	437,202	886,107	199%	98%	159%	79%	159%	79%
Late Stuart	43,061	146,390	540%	159%	432%	127%	432%	127%
Quesnel	294,686	740,527	270%	107%	216%	86%	216%	86%
Stellako	143,838	125,585	118%	135%	94%	108%	94%	108%
Harrison	74,774	40,780	68%	125%	55%	100%	55%	100%
Raft	5,603	3,745	404%	604%	323%	483%	323%	483%
Misc (N. Thomp. Tribs)	422	444	45%	43%	38%	36%	38%	36%
Misc (N. Thomp River)	7,121	5,086	22%	31%	18%	25%	18%	25%
Misc (Widgeon)	1,172	276	34%	145%	32%	134%	32%	134%
Late	2,503,089	918,187	48%	132%	44%	121%	48%	132%
Cultus	12,874	957	5%	70%	5%	65%	5%	70%
Late Shuswap	2,307,591	710,157	33%	106%	30%	97%	33%	106%
Portage	15,293	18,187	300%	252%	275%	231%	300%	252%
Weaver	56,400	90,418	90%	56%	82%	51%	90%	56%
Birkenhead	108,238	97,684	320%	355%	294%	325%	320%	355%
Misc. non-Shuswap	2,693	822	482%	1578%	442%	1516%	482%	1654%



Option 1

Option 2

Option 3

Run timing group Stocks	Total Escapement		Comparisons @p75		Comparisons @p75		Comparisons @p75	
	Cycle Ave	Brood Year	Cycle Ave	Brood Year	Cycle Ave	Brood Year	Cycle Ave	Brood Year
Early Stuart	35,682	44,780	148%	118%	148%	118%	148%	118%
Early Summer	376,440	545,575	272%	188%	218%	150%	218%	150%
Bowron	5,974	3,047	162%	318%	130%	255%	130%	255%
Upper Barriere	5,573	4,433	180%	226%	144%	181%	144%	181%
Gates	4,939	13,081	329%	124%	263%	99%	263%	99%
Nadina	29,416	329,292	1830%	163%	1464%	131%	1464%	131%
Pitt	25,746	22,469	170%	194%	136%	155%	136%	155%
Scotch	126,964	63,780	127%	253%	102%	203%	102%	203%
Seymour	102,343	29,457	82%	286%	66%	229%	66%	229%
Misc (EShu)	66,630	69,416	208%	200%	166%	160%	166%	160%
Misc (Taseko)	1,169	1,869	213%	133%	170%	n/a	170%	n/a
Misc (Chilliwack)	2,738	3,524	290%	225%	245%	190%	232%	180%
Misc (Nahatlatch)	4,947	5,207	238%	226%	191%	181%	191%	181%
Summer	1,007,878	1,948,939	431%	223%	345%	178%	345%	178%
Chilko	437,202	886,107	337%	166%	269%	133%	269%	133%
Late Stuart	43,061	146,390	1507%	443%	1206%	355%	1206%	355%
Quesnel	294,686	740,527	597%	237%	477%	190%	477%	190%
Stellako	143,838	125,585	195%	223%	156%	178%	156%	178%
Harrison	74,774	40,780	158%	290%	127%	232%	145%	267%
Raft	5,603	3,745	749%	1120%	599%	896%	599%	896%
Misc (N. Thomp. Tribs)	422	444	135%	128%	109%	104%	109%	104%
Misc (N. Thomp River)	7,121	5,086	65%	91%	52%	73%	52%	73%
Misc (Widgeon)	1,172	276	51%	218%	47%	200%	47%	200%
Late	2,503,089	918,187	109%	298%	87%	238%	87%	238%
Cultus	12,874	957	10%	132%	8%	105%	8%	105%
Late Shuswap	2,307,591	710,157	82%	268%	66%	214%	66%	214%
Portage	15,293	18,187	475%	400%	380%	320%	380%	320%
Weaver	56,400	90,418	199%	124%	159%	99%	159%	99%
Birkenhead	108,238	97,684	579%	642%	463%	513%	463%	513%
Misc. non-Shuswap	2,693	822	662%	2169%	530%	1818%	530%	1818%

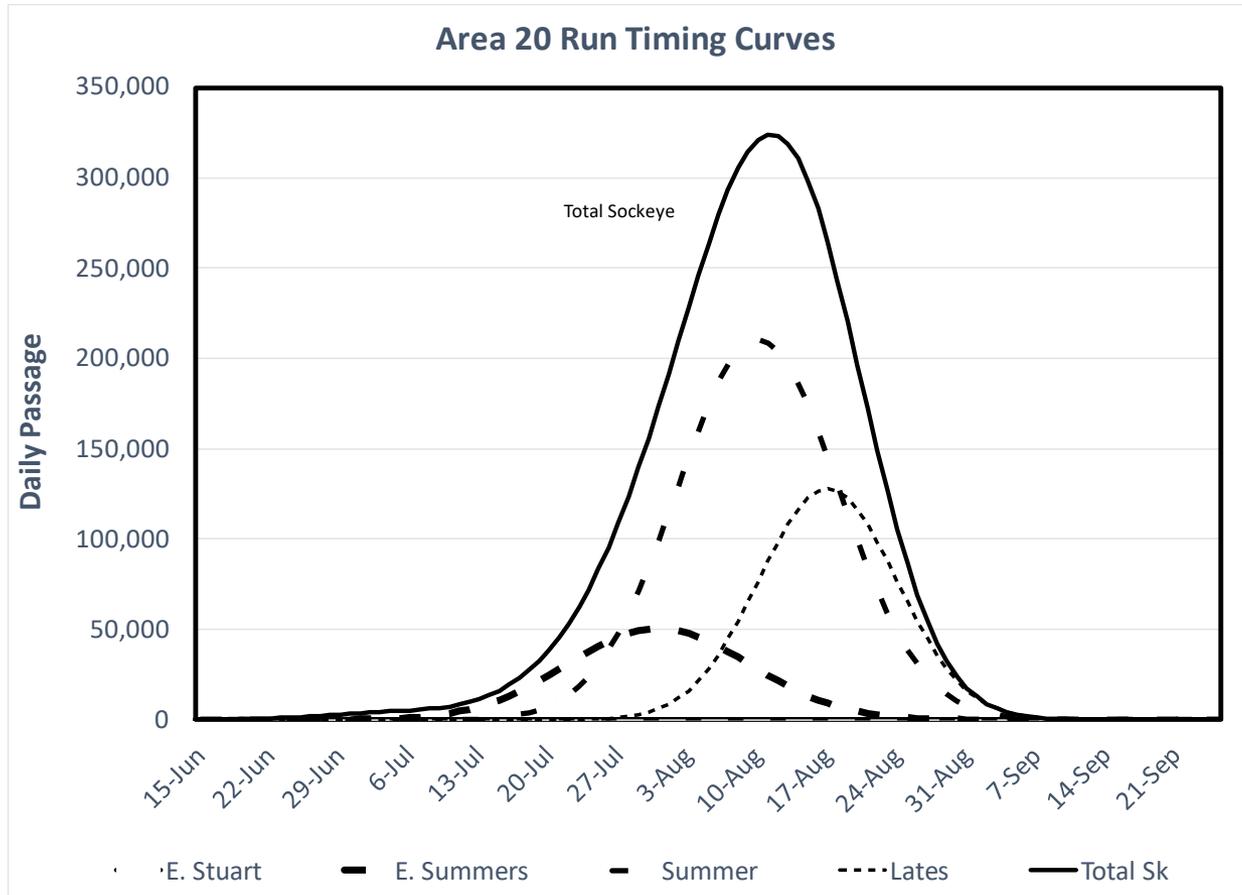


Summary of Potential Fisheries

- Under all three options, full FSC Sockeye fisheries are expected at median (p50) forecast abundances, and at lower run sizes under Option 2.
 - No Sockeye-directed fisheries are anticipated at p10 forecast
- Some commercial and recreational opportunities are expected at median forecasts and above.
- Some limited US fishing opportunities are available and lower run sizes (p25) increasing with increasing abundance, and under Option 2
- In-season abundance and migration conditions can vary widely from forecast and will likely affect harvest opportunities in 2026



Sockeye Run Timing Considerations





Proposed Window Closures

- Window closures between 3 and 5 weeks are considered
 - 3-week window designed to protect >90% of the Early Stuart migration
 - 5-week window protects E. Stuart and protects ~60-70% to early-timed Early Summers

Areas	Start Date	End Date ~3 Weeks	End Date ~4 Weeks	End Date ~5 weeks
Areas 11 to 17, 19 to 21, 121 and 123 to 127	June 24	July 15	July 22	July 29
Areas 18 and 29	June 29	July 20	July 27	Aug 3
Steveston to Mission	June 29	July 20	July 27	Aug 3
Mission to Sawmill	July 1	July 23	July 30	Aug 6
Sawmill to Deadman	July 4	Jul 25	Aug 1	Aug 8
Deadman-Hixon	July 10	Jul 30	Aug 6	Aug 13
Hixon to Prince George	July 12	Aug 3	Aug 10	Aug 17
Prince George to Stuart River	July 14	Aug 5	Aug 12	Aug 19



Cultus Management Considerations

- Cultus forecast is low and its ER is tied to the Late Run MU
- Management options typically include managing the to Late Run ER or adjusting the Late run ER to achieve Cultus objectives
- Adjusting the ER to 0% provides limited improvement to Cultus at median forecast and some improvement at higher returns, under Option 1 – large impact on harvest

2026 projected Cultus successful spawners

run size	p25 711			p50 1,264						p75 2,569					
exploitation rate (ER)	20%	10%	0%	30%	24%	20%	10%	0%	44%	30%	20%	10%	0%		
pDBE	-0.28														
projected adults to the fence	410	461	512	637	692	728	819	910	1,036	1,295	1,480	1,665	1,850		
brood stock (excluded from calculations)	200														
potential wild spawners	210	261	312	437	492	528	619	710	836	1,095	1,280	1,465	1,650		
pre-spawn mortality (PSM)*	40%														
projected successful adult spawners	130	160	190	260	290	320	370	430	500	660	770	880	990		

Cultus Management Objectives - projected 2026 evaluation

Management Objectives	value	p25			p50						p75				
1a. 4 year avg successful spawners **		307	314	322	339	347	354	367	382	399	439	467	494	522	
> 1000		no													
1b. minimum 500 in each year (2023-2026)***		no													
2a. 4 year avg > previous 4 year avg	> 186	yes													
2b. current year > brood year	> 521	no	yes	yes	yes	yes	yes								



Returns compared to pre-season

Return Year	Forecast Probability Level						Actual Returns
	<10%	10%	25%	50%	75%	90%	
1998	NA	4,391,000	6,040,000	6,822,000	11,218,000	18,801,000	10,870,000
1999	NA	3,067,000	4,267,000	4,843,000	8,248,000	14,587,000	3,640,000
2000	NA	1,487,000	2,449,000	4,304,000	7,752,000	NA	5,200,000
2001	NA	3,889,000	6,797,000	12,864,000	24,860,000	NA	7,190,000
2002	NA	4,859,000	7,894,400	12,915,900	22,308,500	NA	15,130,000
2003	NA	1,908,000	2,742,000	3,141,000	5,502,000	9,744,000	4,890,000
2004	NA	1,858,000	2,615,000	2,980,000	5,139,000	9,107,000	4,180,000
2005	NA	5,149,000	8,734,000	16,160,000	30,085,000	53,191,000	7,020,000
2006	NA	5,883,000	9,530,000	17,357,000	31,902,000	56,546,000	12,980,000
2007	NA	2,242,500	3,802,000	6,247,000	11,257,000	19,706,000	1,510,000
2008	NA	1,258,000	1,854,000	2,899,000	4,480,000	7,057,000	1,740,000
2009	NA	3,556,000	6,039,000	10,578,000	19,451,000	37,617,000	1,590,000
2010	NA	5,380,000	8,351,000	13,989,000	23,541,000	40,924,000	28,250,000
2011	NA	1,700,000	2,693,000	4,627,000	9,074,000	15,086,000	5,110,000
2012	NA	743,000	1,203,000	2,119,000	3,763,000	6,634,000	2,050,000
2013	NA	1,554,000	2,655,000	4,785,000	8,595,000	15,608,000	4,130,000
2014	NA	7,237,000	12,788,000	22,854,000	41,121,000	72,014,000	20,000,000
2015	NA	2,364,000	3,824,000	6,778,000	12,635,000	23,580,000	2,120,000
2016	NA	814,000	1,296,000	2,271,000	4,227,000	8,181,000	853,000
2017	NA	1,315,000*	2,338,000	4,432,000	8,873,000	17,633,000	1,641,000
2018	NA	5,285,000	8,423,000	13,981,000	22,937,000	38,893,000	10,675,000
2019	NA	1,832,000	2,979,000	5,056,000	9,133,000	15,313,000	564,000
2020	NA	275,000	486,000	924,000	1,834,000	3,573,000	288,000
2021	NA	313,000	624,000	1,330,000	2,775,000	5,496,000	2,549,000
2022	NA	2,374,000	4,662,000	9,775,000	20,395,000	41,707,000	6,886,000
2023	NA	453,000	800,000	1,564,000	3,185,000	5,952,000	1,653,000*

- Highlighted boxes show forecast value closest to the actual return for that year
- Returns have been below the p50 forecast since 2005 (with exception of 2010, 2021 and 2025).

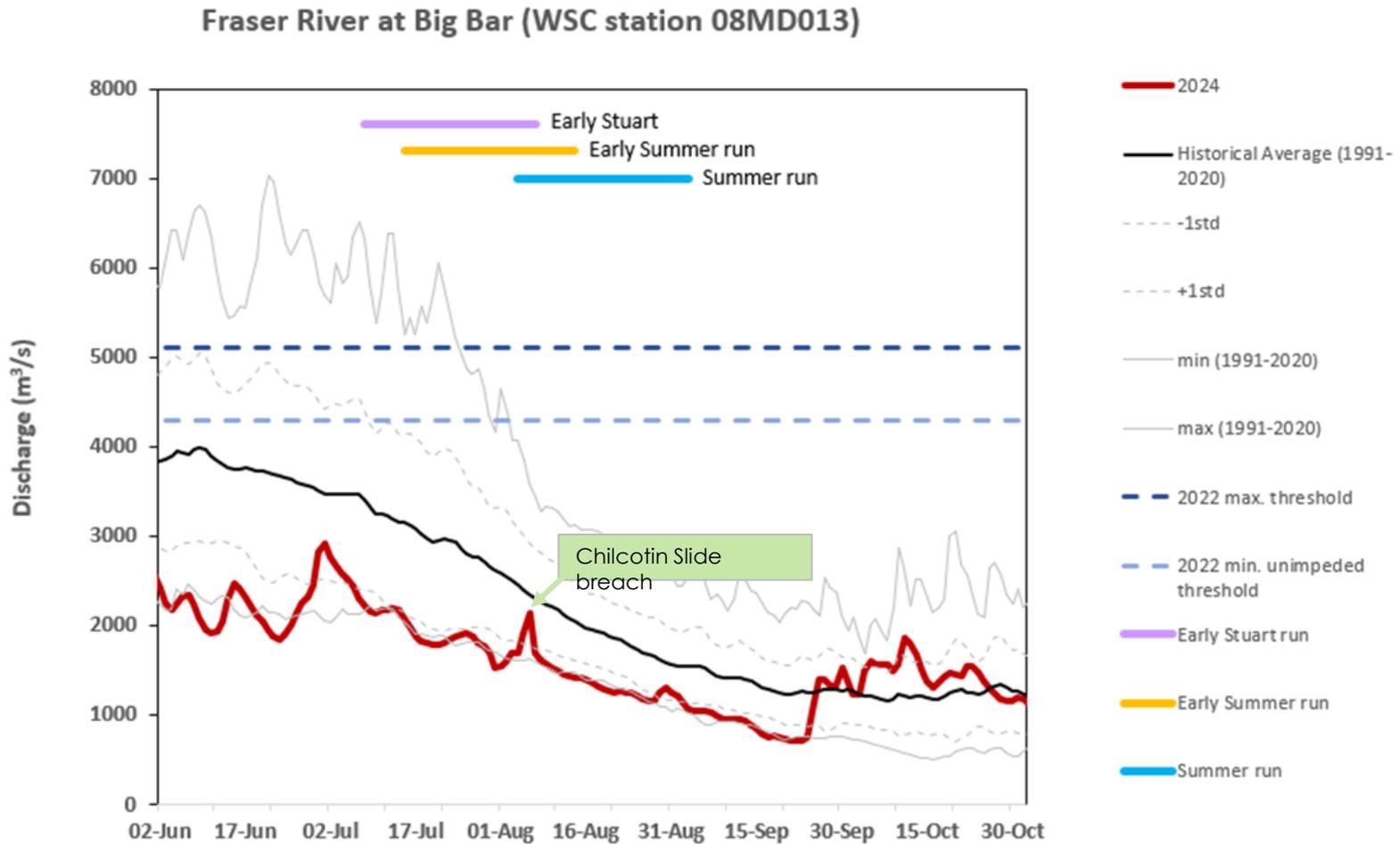


2026 brood year

*red text is near final



Fraser Discharge and Salmon Passage at Big Bar





Key Consideration and Questions

- 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?
- 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?



- Extra slides



Recent History of Escapement Planning: FRSSI

- Current iteration of the escapement plan is the product of the collaborative DFO-led process: **Fraser River Sockeye Spawning Initiative (FRSSI)**.
- Initiated in 2003 to address the growing concerns expressed by Indigenous organizations, stakeholders and recommendations from the Ministerial review of Fraser River sockeye fisheries.
- Mandate of the review process was to incorporate new information, integrate emerging policies such as the Wild Salmon Policy (WSP), and **establish a formal framework for setting escapement targets.**



FRSSI Goals

- Develop a **stable, long-term processes** for reviewing and modifying escapement strategies.
- **Improve the consultation** processes by focusing on proactive discussion of targets and operational guidelines, rather than reactive in-season decision making.
- Manage spawning escapement to **ensure conservation while respecting social and economic values.**



How to define the HCR values?

- Escapement strategies for Fraser sockeye are designed to balance
 - (1) escapement and production for individual stocks and
 - (2) accessing the catch-related benefits from productive stock groups.
 - *For each stock, avoid spawning abundances below which there is a high chance the population will collapse or result in low sustained future benefits - ecological, social, or economic*
- Multiple reference points were compared and selected based on the relative performance, as defined by process participants, to maintain a minimum level of spawners and avoid low catch numbers
- FRSSI did **not** consider fishery allocations as an objective, but these have become an emerging priority
 - Catch location, e.g. terminal vs mixed stock fisheries and implied priority
 - International collaboration