



DRAFT AGENDA
PSC Fraser River Panel Meeting
Via Zoom Webinar: <https://psc-org.zoom.us/j/89632608507>

FRP meeting: Friday, August 9, 2024 at 11:00 am

<input type="checkbox"/>	1) Roll Call (Panel and Tech members, others please email Angela Xu, frontdesk@psc.org)	5 min	
<input type="checkbox"/>	2) Webinar Etiquette: mute phone & chat feature	2 min	
<input checked="" type="checkbox"/>	3) Agenda	5 min	
<input checked="" type="checkbox"/>	4) Overview of run and catch status	5 min	PSC staff
<input checked="" type="checkbox"/>	a) Accounted run to date relative to forecast and adopted run sizes		
<input checked="" type="checkbox"/>	b) Catch-to-date by fishery		
<input type="checkbox"/>	c) TAC table		
<input checked="" type="checkbox"/>	5) Biological information	20 min	PSC staff
<input checked="" type="checkbox"/>	a) Test fishing catches and acoustics summary		
<input checked="" type="checkbox"/>	b) Comparison of predictions from Mission to Qualark		
<input type="checkbox"/>	c) Species composition review		
<input checked="" type="checkbox"/>	d) Stock Identification review		
<input type="checkbox"/>	e) Management Adjustment (MA) considerations		
<input checked="" type="checkbox"/>	i) Environmental report & current temperatures in areas of Fraser Watershed		
<input checked="" type="checkbox"/>	ii) pDBE forecast and sensitivity analysis		
<input type="checkbox"/>	iii) Discharge and migration passage at Big Bar		
<input checked="" type="checkbox"/>	iv) Report on fish condition		DFO
<input checked="" type="checkbox"/>	v) Spawning ground reports		DFO
<input checked="" type="checkbox"/>	6) Assessment information	20 min	PSC staff
<input checked="" type="checkbox"/>	a) Daily migration graphs		
<input type="checkbox"/>	b) Predicted abundance en route to Mission		
<input type="checkbox"/>	c) Diversion rate		
<input type="checkbox"/>	d) Technical assessment information		
<input checked="" type="checkbox"/>	e) Run size and timing estimates		
<input type="checkbox"/>	f) Predicted allowable harvest based on run size and DBE scenarios		
<input type="checkbox"/>	g) Criteria for fishing decisions table		
<input type="checkbox"/>	h) Catch evaluation		
<input checked="" type="checkbox"/>	7) Recommendations on run size, migration timing and MA	10 min	
<input checked="" type="checkbox"/>	a) PSC recommendations		PSC staff
<input type="checkbox"/>	b) Canadian and/or U.S. recommendations		Panel
<input type="checkbox"/>	c) Panel decision		
<input checked="" type="checkbox"/>	8) Fisheries recommendations		
<input type="checkbox"/>	a) Canadian and U.S. proposals		Panel
<input type="checkbox"/>	b) Staff evaluation		PSC staff
<input type="checkbox"/>	c) Canadian and U.S. evaluation		Panel
<input type="checkbox"/>	d) Panel decision		
<input type="checkbox"/>	9) Assessments from other areas	5 min	PSC staff
<input checked="" type="checkbox"/>	10) Other business	10 min	Panel
<input type="checkbox"/>	a) Weekly Report		
<input type="checkbox"/>	b) Other?		
<input checked="" type="checkbox"/>	11) Next FRP meeting and agenda	2 min	PSC staff/Panel
<input type="checkbox"/>	12) Next TC meeting		PSC staff

Legend: Content included in the distribution
 Not included in the distribution due to not relevant for this meeting or no (new) information

4a. Accounted run to date relative to forecast and adopted run sizes

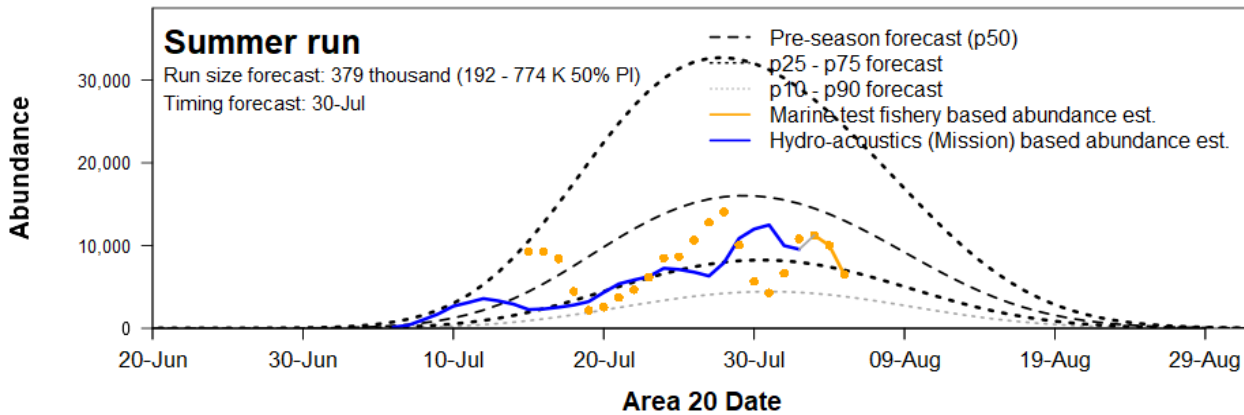
2024 Run status of Fraser sockeye and pink salmon

Date: Aug. 9, 2024

The information presented in this distribution has been prepared by PSC Secretariat staff and should be considered preliminary until reviewed by the Fraser River Panel

Week of: Aug. 4 - Aug. 10, 2024	Sockeye				
	Management Group				Total Fraser
	E.Stuart	E.Summer	Summer	Late	
Mission passage (incls Pitt, Alouette, Coquitlam)	200	131,300	141,700	3,000	276,200
Catch downstream of Mission	0	1,300	2,600	100	4,000
Accounted Run To Date	200	132,600	144,300	3,100	280,200
Run size adopted in-season ¹	na	136,000	na	na	na
Run size forecasted pre-season	180	159,000	379,000	29,000	567,000
Area 20 timing adopted in-season	na	13-Jul	na	na	na
Area 20 timing expected pre-season	7-Jul	19-Jul	30-Jul	7-Aug	28-Jul
Johnstone Str. Diversion Rate				Annual average to date	42%
				Preseason forecast of annual rate:	33%

¹ Run sizes are usually not adopted until after the peak of the run has passed through marine test fishery areas in Juan de Fuca and Johnstone straits.



4b. Catch-to-date by fishery

2024 Catch-to-date by fishery

Date: Aug. 9, 2024

Week of: Aug. 4 - Aug. 10, 2024		Sockeye	
		Total	Fraser
Canada		855	851
	Commercial	0	0
	B Purse Seine	0	0
	H Troll	0	0
	First Nations	0	0
	Food, Social & Ceremonial (FSC)	0	0
	Marine	0	0
	Fraser R.	0	0
	Economic Opportunity (EO) & Demonstration (Demo)	0	0
	Escapement Surplus to Spawning Requirements (ESSR)	0	0
	Recreational	0	0
	Charter (Albion & A12 Chum test fishery)	122	122
	Other****	733	730
United States		0	0
	Commercial	0	0
	Treaty Tribes (TRB)	0	0
	All Citizen (AC)	0	0
	Treaty Tribes Ceremonial & Subsistence (C&S)	0	0
	All Citizen Recreational	0	0
	Other****	0	0
	Alaska *	na	na
Panel-approved Test Fisheries		4,554	4,346
	Panel Waters	2,545	2,494
	Canada	2,545	2,494
	U.S.	0	0
	Non-Panel Waters**	2,009	1,852
Total		5,409	5,197
	Catch Seaward of Mission ***	4,205	3,993
	Catch Upstream of Mission	1,204	1,204

* Alaska data are processed post-season and so are unavailable in-season.

** Includes Qualark

*** All catches in marine areas and in the Fraser River downstream of Mission.

**** May include unauthorized directed retention or unauthorized bycatch retention in fisheries directed at other species

5a Fraser Sockeye Test Fishing & Escapement Summary

Area/Gear Location From A20	Fraser River								
	A29-17 GN	A29-16 GN	Whon CPUE	Qualark			Mission Hydroacoustics		Hells Gate
	Brownsville Bar (+5 days)	Whonnock (+6 days)	Estimate (+6 days)	GN Catch (+8 days)	Estimate ¹	Method ²	Estimate ³ (+6 days)	Method ⁴	Estimates ⁵ (+10 days)
18-Jul	37	8	0.67	17	11,609	RB + LB	9,300	A1+S1+M2+A2	2,990
19-Jul	18	12	1.06	24	14,049	RB + LB	10,900	A1+S1+M2+A2	3,650
20-Jul	27	7	0.67	33	14,020	RB + LB	9,700	A1+S1+M2+A2	No Count
21-Jul	19	8	0.73	45	14,545	RB + LB	5,900	A1+S1+M2+A2	No Count
22-Jul	9	7	0.64	35	11,908	RB + LB	4,100	A1+S1+M2+A2	3,370
23-Jul	15	4	0.37	19	7,413	RB + LB	6,400	A1+S1+M2+A2	7,090
24-Jul	43	17	1.47	25	5,631	RB + LB	5,900	A1+S1+M2+A2	No Count
25-Jul	44	3	0.29	23	5,669	RB + LB	7,200	A1+S1+M2+A2	No Count
26-Jul	16	3	0.28	17	6,113	RB + LB	10,700	A1+S1+M2+A2	2,940
27-Jul	57	2	0.19	10	5,239	RB + LB	9,900	A1+S1+M2+A2	1,770
28-Jul	38	4	0.36	30	10,035	RB + LB	9,300	A1+S1+M2+A2	660
29-Jul	99	8	0.77	47	15,995	RB + LB	7,900	A1+S1+M2+A2	1,340
30-Jul	64	11	1.03	37	14,709	RB + LB	10,300	A1+S1+M2+A2	No Count
31-Jul	0	16	1.45	24	10,011	RB + LB	11,300	A1+S1+M2+A2	6,110
1-Aug	14	11	1.03	28	14,735	RB x 2	6,400	A1+S1+M2+A2	No Count
2-Aug	33	19	1.70	27	20,666	RB x 2	7,700	A1+S1+M2+A2	3,520
3-Aug	29	25	2.14	28	14,627	RB x 2	9,100	A1+S1+M2+A2	560
4-Aug	76	49	3.95	34	11,558	RB x 2	12,100	A1+S1+M2+A2	No Count
5-Aug	42	73	5.73	12 (3 sets)	9,762	RB x 2	17,300	A1+S1+M2+A2	No Count
6-Aug	35	34	2.78	DNF	NA	NA	12,900	A1+S1+M2+A2	No Count
7-Aug	18	DNF	NA	0	125	RB x 2	13,500	A1+S1+M2+A2	0
8-Aug	3	46	3.49				8,500	A1+S1+M2+A2	0
9-Aug									

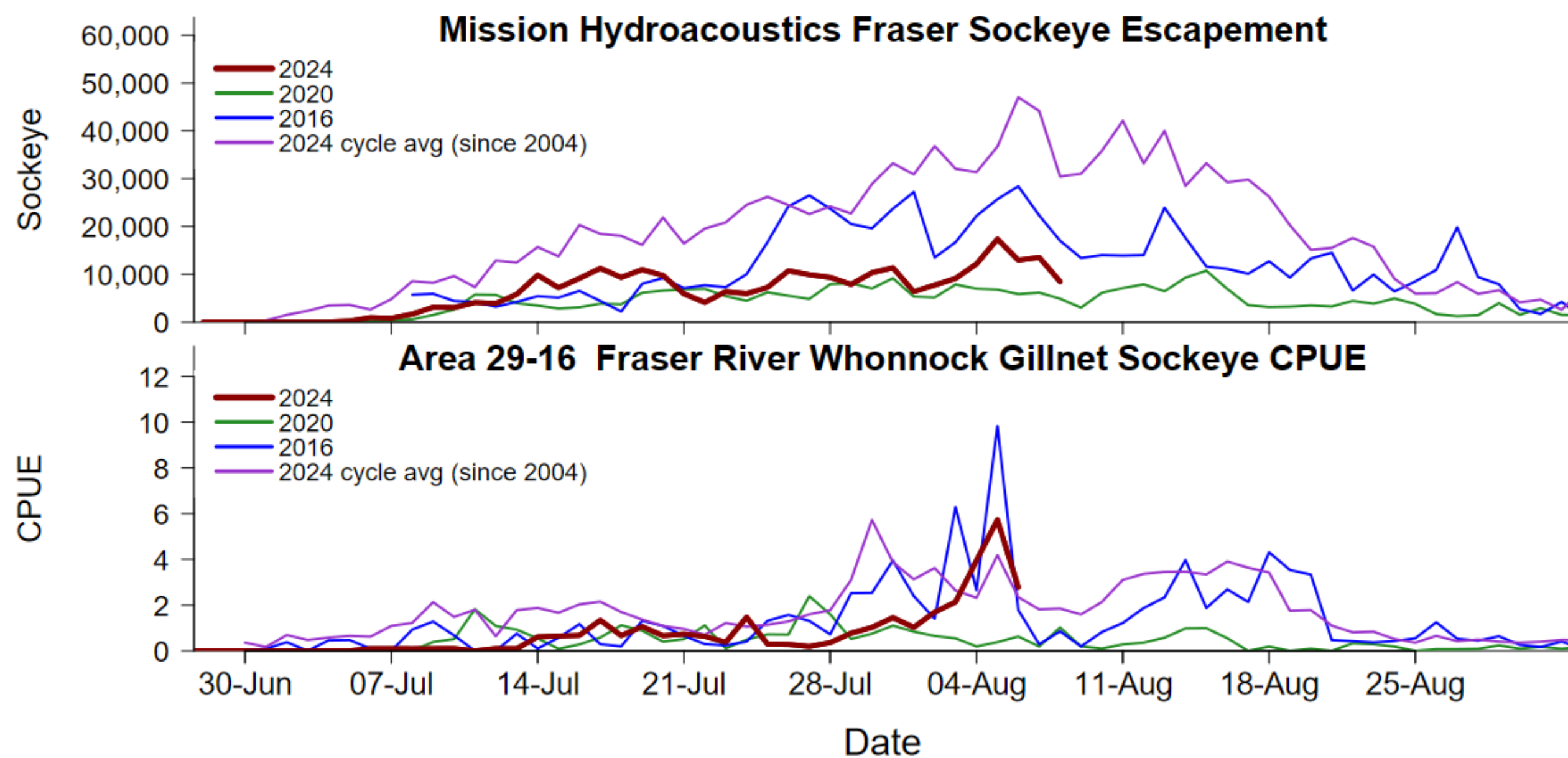
¹ Qualark escapement estimate - does not include Chilliwack, Pitt, Harrison, Birkenhead, Big Silver, Weaver, and Cultus.

² Qualark source: RB + LB = Right-bank and Left-bank
RB x 2 = Right-bank (RB) x 2

³ Mission escapement estimate - does not include Pitt

⁴ Mission source: A1 + S1 + M2 + A2 = Left-bank ARIS (A1) + Left-bank split-beam (S1) + Mobile ARIS (M2) + Right bank ARIS (A2)

⁵ Daily Hells Gate abundance estimate; actual daily count has been expanded.



5a.ii. Mission Hydroacoustics Estimates

Environmental conditions observed at Mission August 5 – 8

- Mobile and right-bank ARIS systems were halted the evening of August 5th in anticipation of debris arrival overnight.
 - However, no change in environmental conditions was observed until the evening of August 6
- Effects of the slide arrived in 3 main stages:
 - *Overnight Aug 6 – morning Aug 7* - Increased water levels and minor debris.
 - *Midday/overnight Aug 7* - Large debris.
 - *Evening/overnight Aug 7* - Significant sediment load reducing Secchi reading from 35cm to 5cm.
 - *Aug 7 – Aug 8* – gradual improvement on systems (Secchi currently 15cm)
- Due to the environmental challenges, not all systems were operational and the missing data was imputed for the daily estimates.

Missing data due to landslide and imputation^{1,2}

Mission Date	Hours Imputed by Sonar System				Total Salmon Estimates (% imputed)
	A1	S1	M2	A2	
Aug 5	N/A	N/A	10	10	30,616 (5%)
Aug 6	N/A	N/A	N/A	9	22,083 (5%)
Aug 7	N/A	12	12	24	24,472 (40%)
Aug 8	12	12	12	12	12,806 (41%) ³

¹A1 = left-bank ARIS; S1 = left-bank split-beam; M2 = mobile ARIS; A2 = right-bank ARIS

² Reference for imputation: [Bzonek and Hornsby, 2022](#)

³Preliminary estimate to be reviewed

Changes in migration behaviour

- As of 4pm on August 7th no changes in fish behaviour were observed at Mission based on metrics of:
 - Downstream ratios
 - Upstream/downstream swim speed
 - Proportions coming from each sonar system (e.g., cross river distribution)
- Data from August 7th, 4pm to Aug 8 mid day, is limited to 10m on the left-bank split-beam. However, fish targets that were observed have been following normal patterns of fish behaviour.
- As of August 8th, there has been a small increase in downstream ratio on A1 and A2 but data limited due to poor sonar visibility. Some milling observed during low tide, common occurrence at Mission.

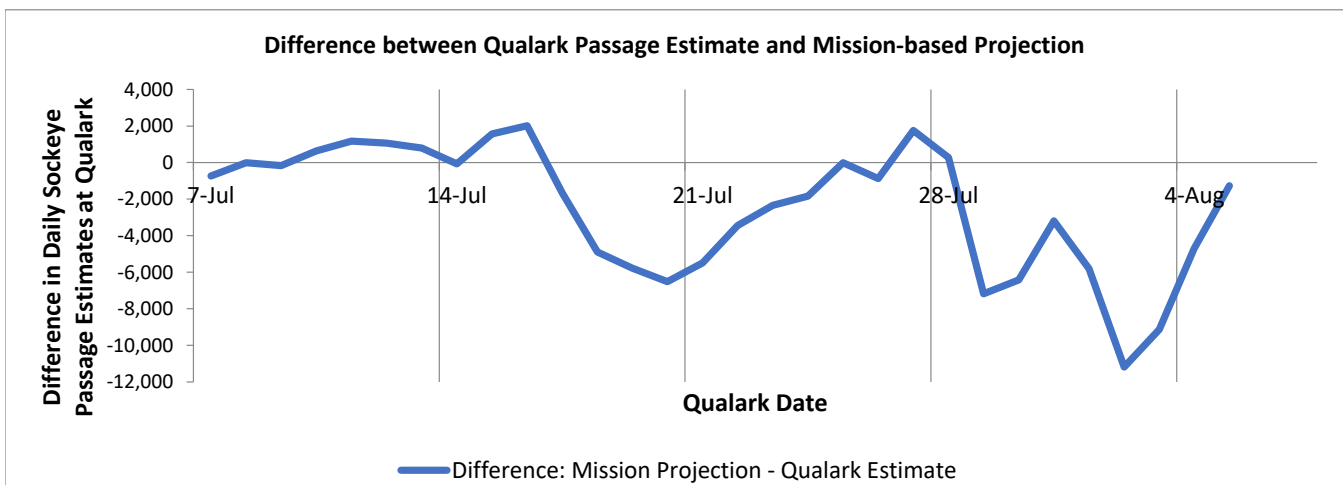
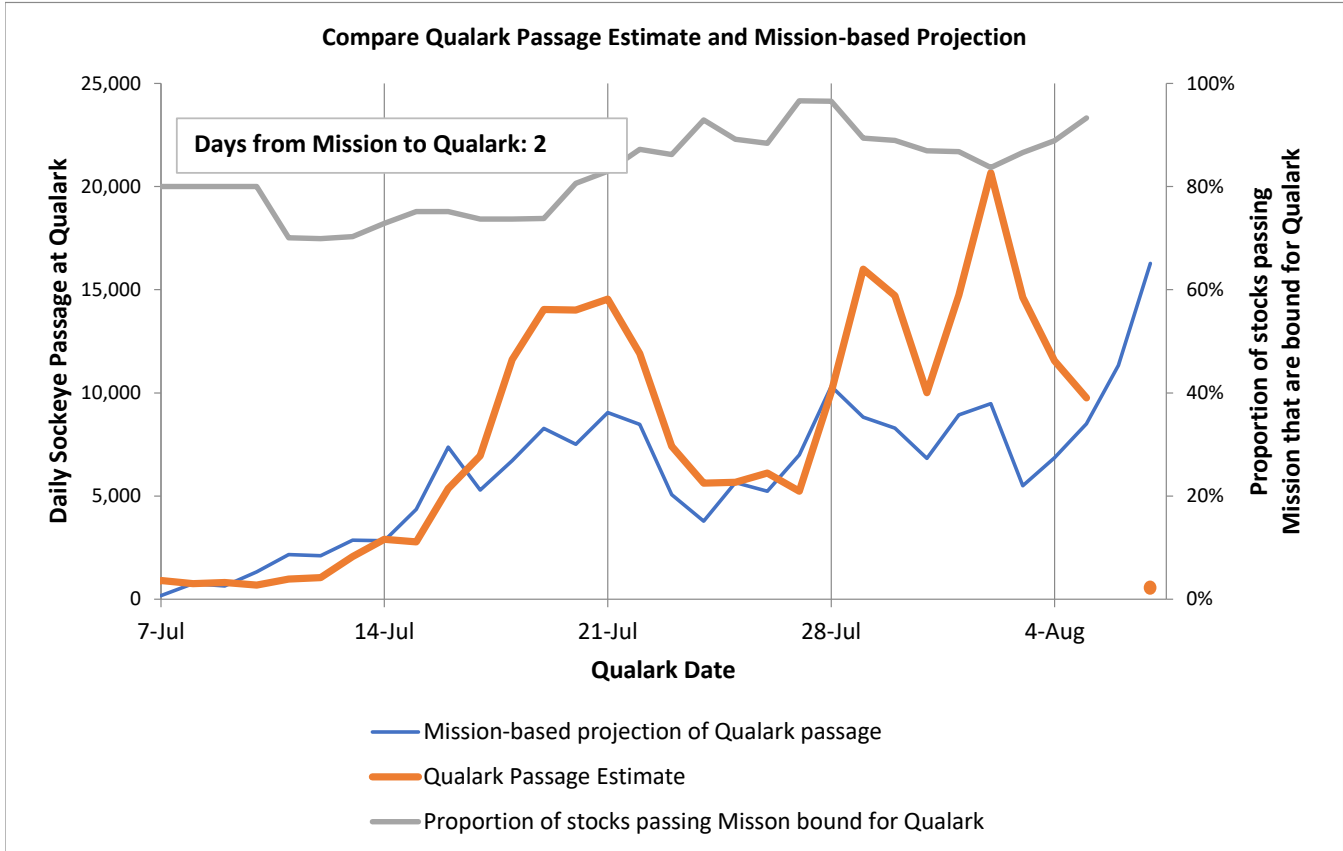
5b. Comparison of predictions from Mission to Qualark

Year: **2024**

Date: 9-Aug-24

Time: 9:58 AM

	All Days	Common Days until Aug 5
Mission projection	229,660	170,173
Qualark estimate	244,218	243,543
Difference		-73,370
%Difference		(43%)

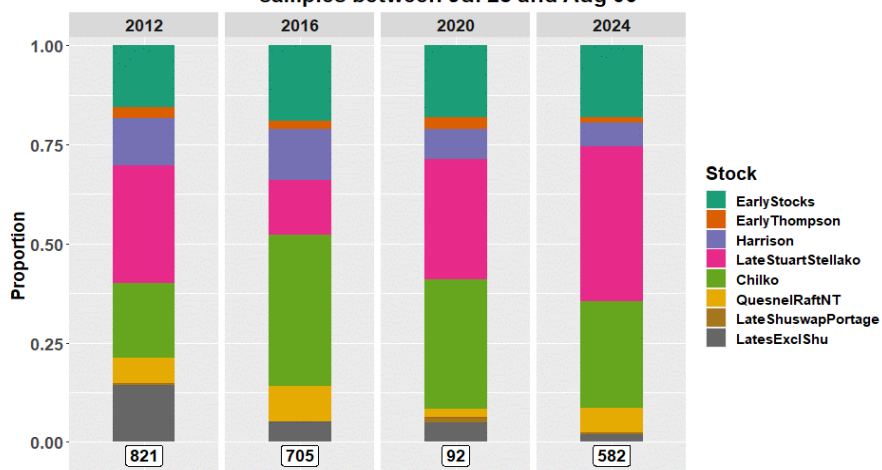


5d. Fraser River Sockeye Salmon Stock identification Review

Recent stock composition estimates for sockeye salmon

Fishing						Fraser-only Stock Proportions by Reporting Group ⁴ (%)													Age (%)					
						Sample					Early Stuart	Early Summer				Summer				Late				Overall Stocks
						Area/Gear ¹	Sector ²	Date	Type ³	Size (n)	%Fraser	Early Stuart	Chilli-wack	Alouette	Coquit-lam	Nadina Bowron Gates	Nahat-latch	Early Thompson	Early Summer sub-total	Harrison	Late Stuart	Chilko	Raft North Thompson	Summer sub-total
Johnstone Strait & Queen Charlotte Strait																								
A12 ps	tf	Jul 30	DNA	82	94%	0%				16%				16%	4%	37%	32%	8%	80%	3%		1%	4%	82%
A12 ps	tf	Aug 1	DNA	97	97%	0%	2%	4%	5%					10%	2%	35%	38%	10%	84%	5%		1%	5%	80%
A12 ps	tf	Aug 2	DNA	98	96%	0%			9%				9%	4%	33%	44%	6%	86%	3%		1%	4%	76%	
A12 ps	tf	Aug3-4	DNA	77	91%	0%		1%	2%				4%	1%	40%	37%	11%	90%	3%	1%	3%	6%	68%	
A12 ps		Aug 9	Prediction	1	97%	0%		0%	6%				6%	2%	19%	54%	10%	84%	8%	0%	2%	10%	NA	
Juan de Fuca Strait & Washington & Other																								
A20 ps	tf	Aug2-3	DNA	148	99%	0%		2%	12%	0%			14%	10%	21%	36%	10%	77%	8%	0%		8%	84%	
A20 ps		Aug 9	Prediction	1	100%	0%		0%	5%	0%			6%	11%	16%	49%	10%	86%	7%	1%		9%	NA	
In-river																								
BB gn	tf	Aug1-3	DNA	76	100%	0%	3%		16%				19%	5%	38%	35%	1%	80%	1%			1%	86%	
BB gn	tf	Aug 4	DNA	75	100%	0%	1%		8%	0%			10%	4%	47%	30%	7%	89%	1%			1%	88%	
BB gn	tf	Aug5-6	DNA	76	100%	0%			12%				12%	5%	42%	30%	6%	82%	5%			5%	89%	
AB gn	tf	Aug5-6	DNA	83	100%	0%		1%	11%	3%			16%	2%	42%	36%	2%	82%	2%			2%	85%	

Stock proportion comparison across years for VMGN samples between Jul 28 and Aug 06



In-river samples collected at AB & BB test fisheries, grouped (box shows n).

Notes for sockeye and pink tables:

- ¹ BB GN=29_13 (Cottonwood,Brownsville), AT = Alaska Twist, AB GN= 29_16 (Whonnock), MA FW=Matsqui Fish Wheel, QU GN=Qualark
- ² TF=sample from test fishery catch, CM=sample from commercial catch, C&S=ceremonial & subsistence catch, FSC=food, social, & ceremonial catch, rec= recreational catch
- ³ Predictions for sockeye are multinomial extrapolations of current year data to 5 days after the last observation; Predictions for pink salmon are projections of stock compositions based on historic and current data
- ⁴ Further information relating stock group descriptions to spawning ground locations and population definitions can be found at http://www.psc.org/FRPWeb/Escapement/PSC_Fraser_Sockeye_Stock_Group_Definitions.pdf

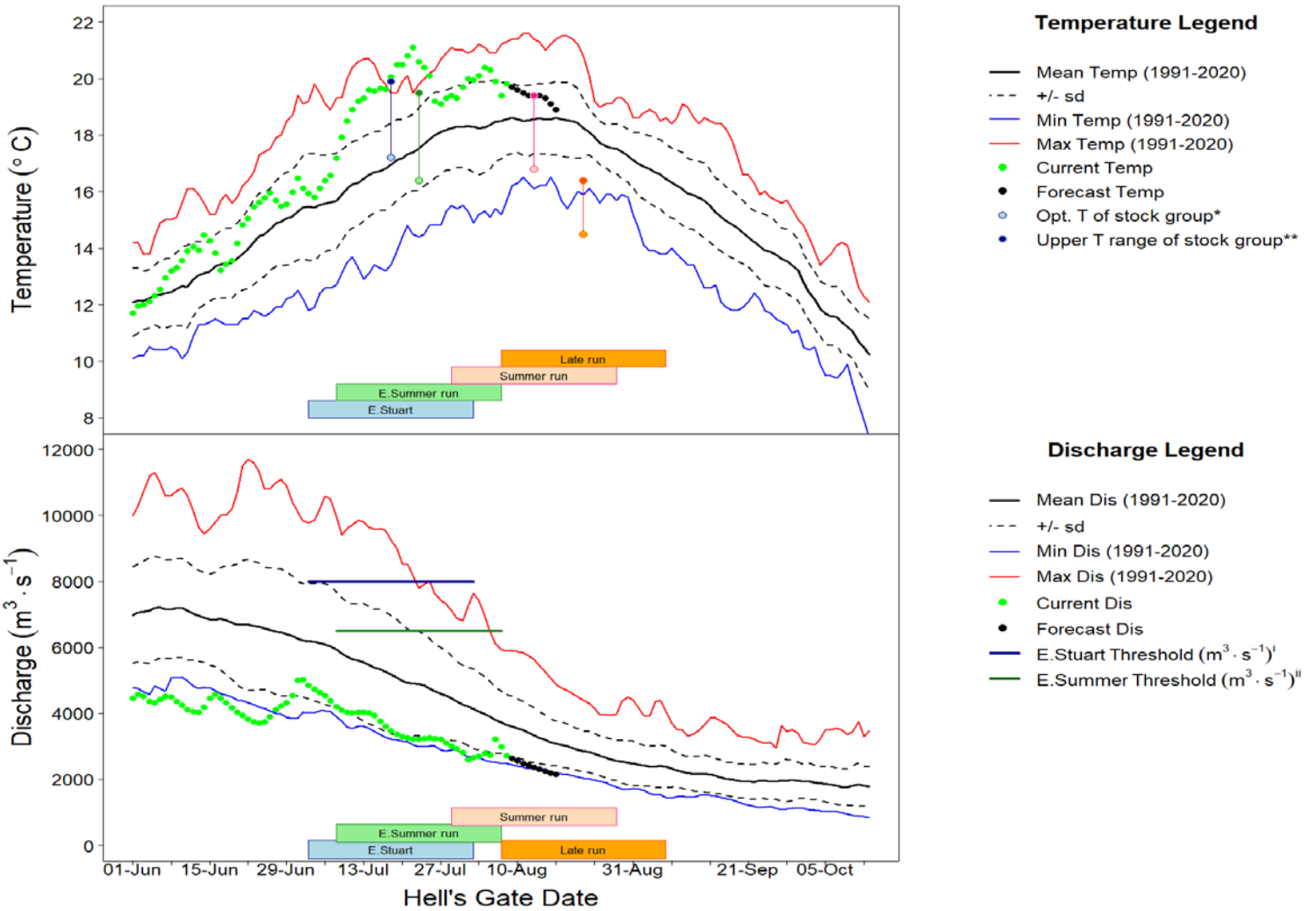
Results in grey text have been presented to the Panel previously

5ei. Environmental report

Fraser River Environmental Report for August 08, 2024

Observed Fraser River Temperature at Qualark for 08-Aug	19.8°C
Average (1991-2020) Historical Temperature on this day	18.6°C
Deviation from Average	1.2°C
Forecast Temperature for 14-Aug-24	19.4°C
The forecast in Kamloops is for above average temperatures until Aug. 14. The forecast in Prince George is for above average temperatures.	

Observed Fraser River Discharge at Hope for 08-Aug	2711 m ³ ·s ⁻¹
Average (1991-2020) Historical Discharge on this day	3650 m ³ ·s ⁻¹
% above or below Historical Discharge	-26%
Forecast Discharge for 14-Aug-24	2311 m ³ ·s ⁻¹
The forecast in Kamloops and Prince George is for 13 mm and 5 mm, respectively.	



Run timing bars represent a 31 day spread of the run centered around the Hell's Gate date. Hell's gate timing is 5 days from Mission for Early Stuart and Late run; and 4 days from Mission for Early Summer and Summer run.ⁱpMA is the proportional increase to spawning escapement targets to help ensure targets are achieved.ⁱⁱ%DBE is %difference between estimates of potential spawning escapement and spawning escapement.*This is the optimum temp for aerobic swimming - T_{opt} (Eliaison et al. (2011). Science 332: 109-112)**This is the upper range of the optimum temp for aerobic swimming - T_{pejus}ⁱDischarge threshold of 8000cms for Early Stuart from Macdonald et al. (2010). Trans. Am. Fish. Soc. 139: 768-782. 19 days of T & Q data are required to calculate a pMA - 15 days before the Hell's Gate Date and 3 days after. MA estimates can be calculated 4 days after the Area 20 date.

5ei. Current temperatures in areas of the Fraser Watershed

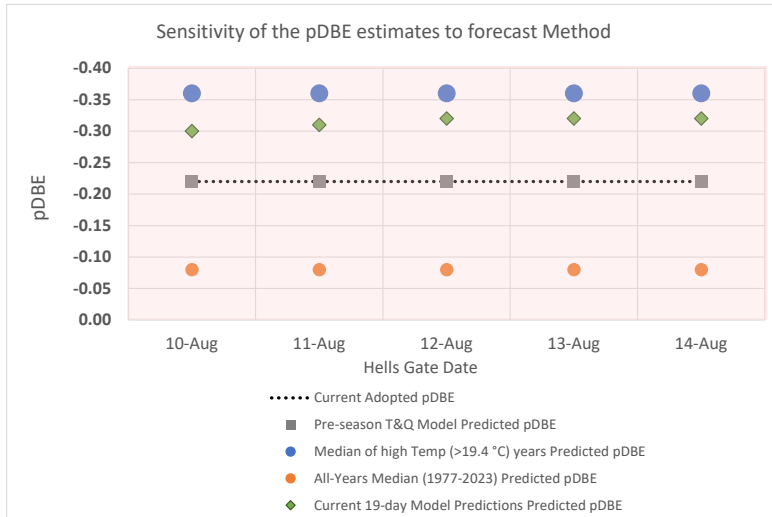
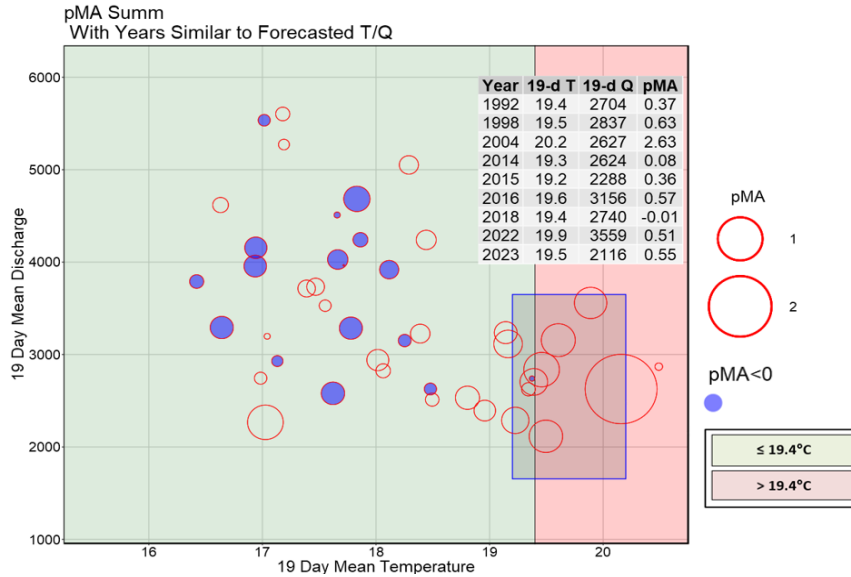
Current Temperatures						
Upriver of Slide	Map #	07-Aug	Daily Mean	Historic Mean	Deviation from Historical Mean	Historic Year Range
<u>Fraser River Mainstem</u>						
	1	Fraser River @ Qualark	19.4	18.5	0.9	1991-2020
	2	Fraser River @ Texas Creek	18.9	18.7	0.2	2006-2023
▶	3	Fraser River @ Marguerite	18.5	18.6	-0.1	2015-2023
▶	4	Upper Fraser @ Shelley	17.1	15.5	1.6	1994-2023
<u>Fraser River Tributaries</u>						
	5	Thompson R. @ Ashcroft	19.0	18.2	0.8	1995-2023
	6	South Thompson @ Chase	20.9	19.4	1.5	1994-2023
	7	North Thompson @ McLure	NA	16.0	NA	2006-2023
▶	8	Chilcotin River @ Hanceville	15.6	16.0	-0.4	2019-2023
▶	9	Quesnel R. @ Quesnel	16.1	17.1	-1.0	2000-2023
▶	10	Nechako R. @ Isle Pierre	19.4	19.4	0.0	2006-2023
▶	11	Stuart R. @ Ft. St. James	20.3	18.8	1.5	2000-2023



Seii. pDBE forecast and sensitivity analysis

Summer run pDBE Forecast and Sensitivity Analysis for August 09, 2024

Based on the retrospective analysis evaluation of 2010-2023 for Summer run, the best performing in-season model is the 31-day pre-season T & Q model when temperature is $\leq 19.4^{\circ}\text{C}$ and the Median of high Temp ($>19.4^{\circ}\text{C}$) years when Temperature is $> 19.4^{\circ}\text{C}$.



Model Performance Based of Retrospective of "In-season pDBE Method"					Best if Temp $\leq 19.4^{\circ}\text{C}$		Best If Temp $> 19.4^{\circ}\text{C}$	
Hells Gate		Average	Average	Current	Pre-season	Median of	All-Years Median	Current 19-
Area 20	Date	Temperature $^{\circ}\text{C}$	Discharge m^3/s	Adopted	T&Q Model	high Temp ($>19.4^{\circ}\text{C}$) years	(1977-2023)	day Model
				pDBE	Predicted pDBE	Predicted pDBE	Predicted pDBE	Predicted pDBE
30-Jul	10-Aug	19.7	2802	-0.22	-0.22	-0.36	-0.08	-0.30
31-Jul	11-Aug	19.7	2753	-0.22	-0.22	-0.36	-0.08	-0.31
01-Aug	12-Aug	19.7	2702	-0.22	-0.22	-0.36	-0.08	-0.32
* 02-Aug	13-Aug	19.7	2653	-0.22	-0.22	-0.36	-0.08	-0.32
03-Aug	14-Aug	19.6	2608	-0.22	-0.22	-0.36	-0.08	-0.32
Implied pMA								
02-Aug	13-Aug	19.7	2653	0.28	0.28	0.56	0.09	0.47

*Currently last day with 19 days of observed (11 days) and forecasted (8 days) Temp & Disch data.

Seii2. Information from David Patterson and DFO's Environmental Watch program

- Based on previous slides in the Chilcotin (1964, 2004), it is assumed the slide area will be cleared of acute hydraulic challenges within the week.
- Concerns at the moment are the migration delay and migratory stress salmon experience due to the high concentration of suspended sediments and water clarity (high turbidity levels).
 - Adult salmon will delay upstream migration if sediment levels are too high and suffer physiological impairment. If turbidity is high, salmon cannot see far and will sustain damage when moving through high velocity canyon areas.
 - Suspended sediment and turbidity will improve once the main slide material has scoured out, but there will be episodic pulses of sediment from continued sloughing in the mainstem Chilcotin. This impact will be diluted once it hits the Fraser mainstem.
 - The Chilcotin typically makes up < 10% of Middle Fraser flows and < 5% of lower Fraser Canyon flows.
- Estimated flows during the drainage of the backwater have not been sufficient to cause hydraulic challenges for upstream salmon migration in the mainstem of the Fraser River (below Hells Gate and at Big Bar).
- It is currently assumed that no major changes have happened to the Farwell Canyon topology that would influence hydraulics.
- It is possible that Chilcotin bound fish already in the system would be disoriented from the lack of olfactory cues for the past 5 days (observations from Chilcotin slide in 1964).

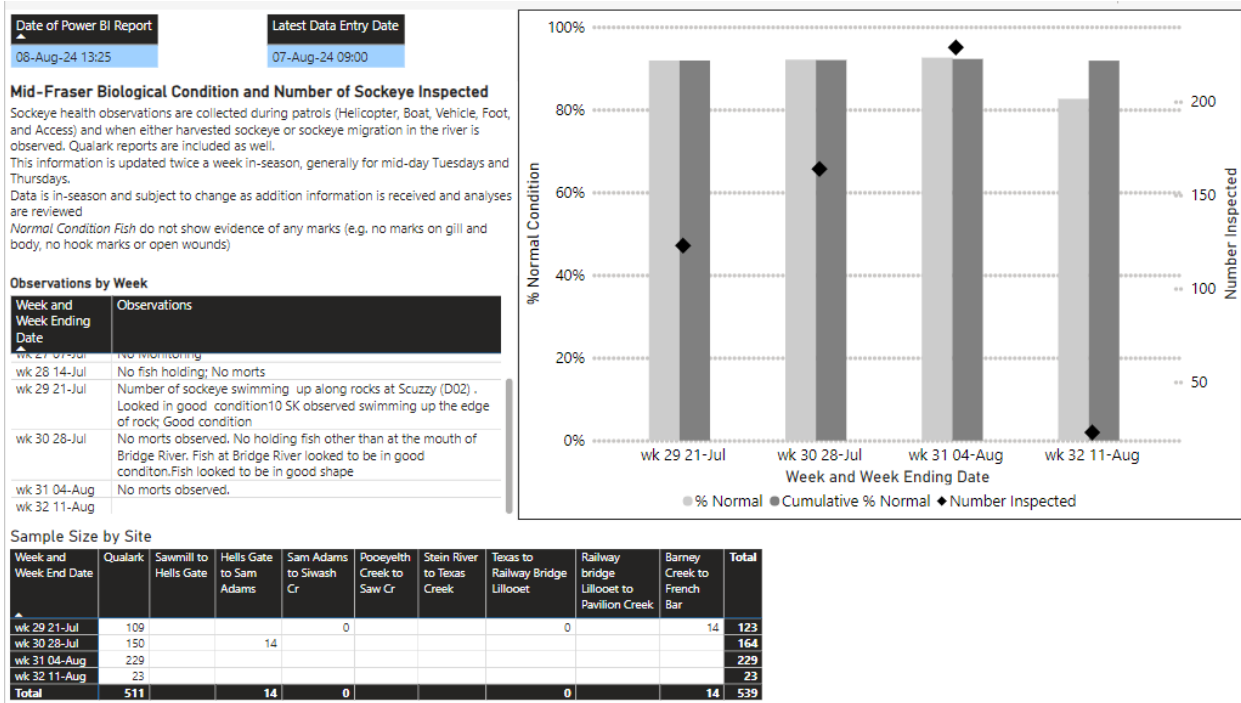
Impact of the landslide event on sockeye stocks

Chilko/Taseko run size and migration timing

- Both Chilko and Taseko have spawning grounds located above the Chilcotin landslide.
- It is estimated to take 12-13 days for sockeye to migrate from Mission to the Chilcotin landslide area assuming average migration conditions.

Estimates as of August 9	Taseko	Chilko
Run size estimate: Taseko, pre-season forecast Chilko, in-season estimate	67 (14 – 126 80% PI)	125,000 (93,000 – 180,000 80% PI)
Marine timing estimate: Taseko, pre-season forecast Chilko, in-season estimate	July 20	August 7 (4 – 9 Aug 80% PI)
Expected peak migration timing at Chilcotin landslide	August 7-8	August 25-26
Estimated abundance above Big Bar	NA	4,600 sockeye
Estimated abundance between Mission and Big Bar	NA	34,000 sockeye

Seiv. Report on Fish Condition



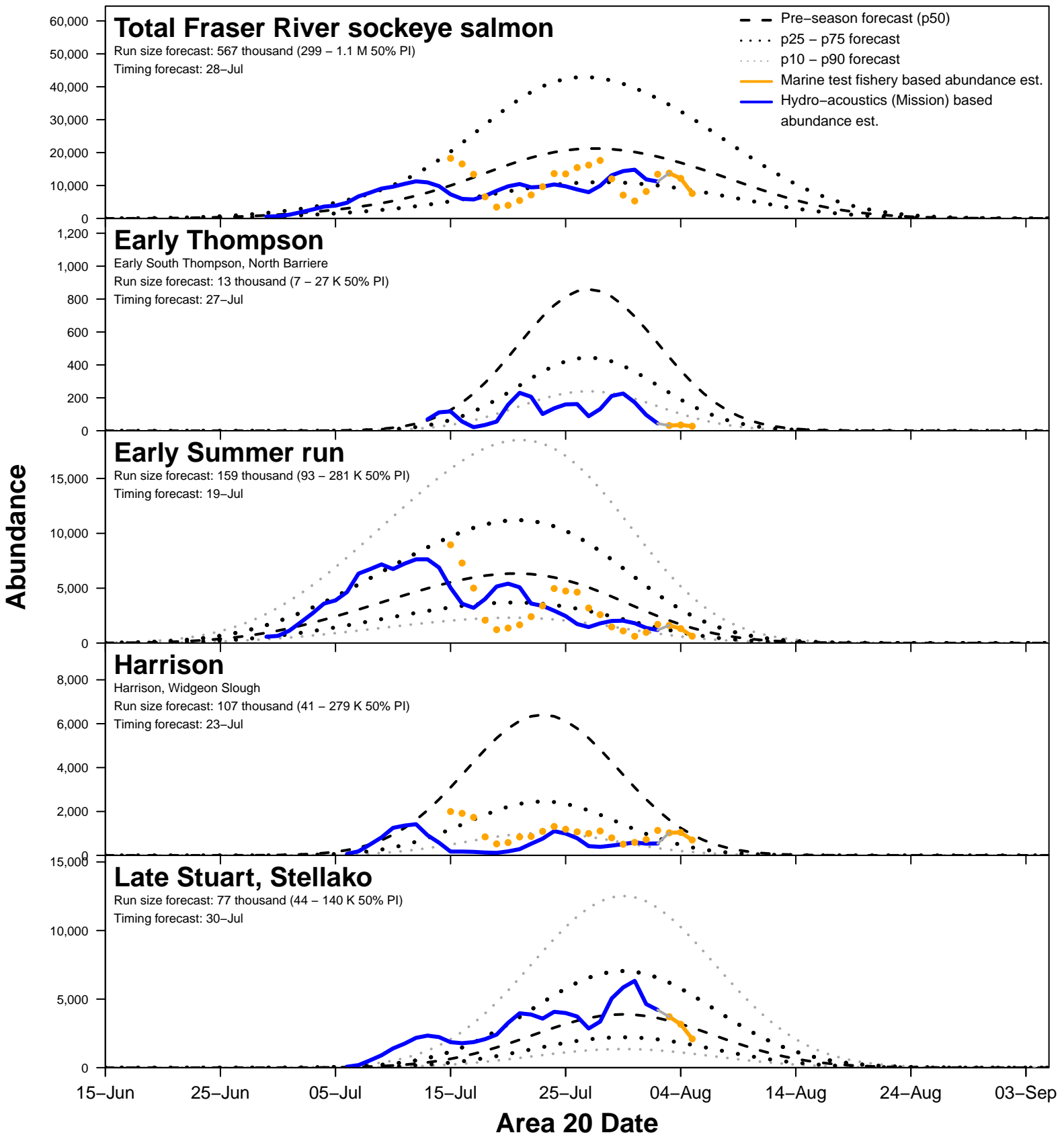
5ev. Spawning ground reports

Table 1. Fraser River Sockeye escapement - 2024 in-season update #4.

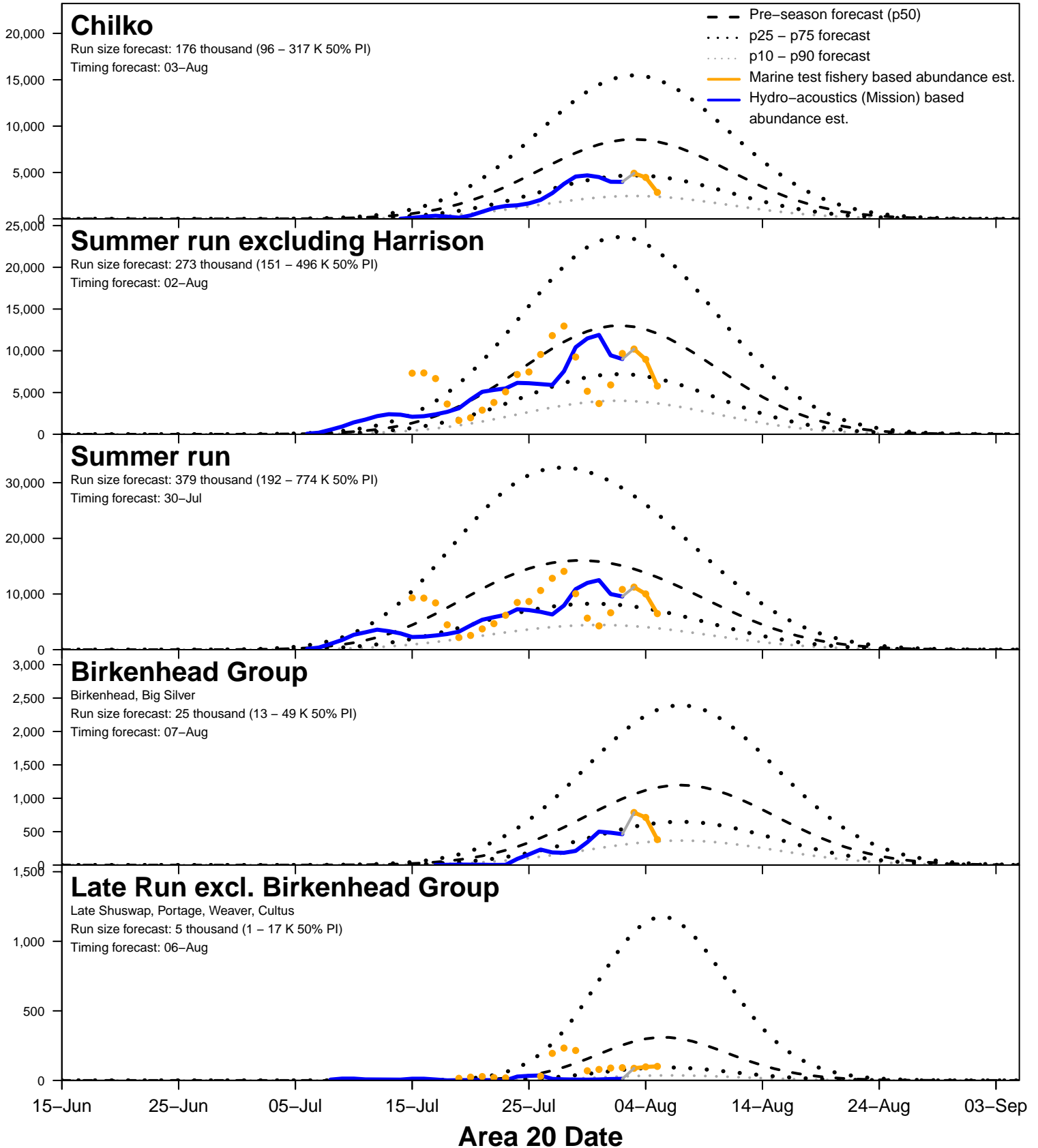
Stock	Survey Method	Start Date	End Date	No. to Date	Spawning	Water Temp.	Water Conditions	Fish Condition
EARLY STUART								
Early Stuart	Visual survey	20-Jul	Ongoing		Holding	7.7-20.6	Low water levels in several creeks	
EARLY SUMMER								
Nadina River	Hydroacoustics	26-Jul	Ongoing	-56		15.5		
Upper Chilliwack River	Hydroacoustics	10-Jul	Ongoing	8,714	Primarily holding, some spawning	10.8	Low water levels	Appear healthy
SUMMER								
Chilko	Hydroacoustics	31-Jul	Ongoing	250	Migrating	12		
Stellako (includes Nadina River)	Hydroacoustics	25-Jul	Ongoing	11,706*	Migrating or holding	17		
LATE								
Cultus Lake	Fence counts	Jul-29	Ongoing	0		25		

*Uncertainty in SONAR counts to date.

6a. 2024 Fraser River sockeye salmon daily migration



6a. 2024 Fraser River sockeye salmon daily migration



6e Fraser River run size and timing estimates

The information presented on this page has been prepared by PSC Secretariat Staff. All in-season estimates of run size and timing should be considered draft preliminary estimates unless adopted by the Fraser River Panel.

Preseason forecasts, inseason estimates, and official estimates of run size and associated timing

	Run Size					Run size components				Run Timing ¹						
	Inseason Adopted	Preseason Forecast	Inseason estimate	Inseason 80% PIs ²		Method	Catch + Escapement	6-day Projection ³	Seaward Abundance	Migration Delay	Inseason Adopted	Preseason Forecast	Inseason estimate	Inseason 80% PIs ²		Method
				10% PI	90% PI									10% PI	90% PI	
Early Stuart Run ‡	NA	181	No in-season assessments due to lack of in-season data for Early Stuart in 2024													
Early Summer Run	136,000	159,000	✓ 138,000	135,000	140,000	Sum	133,000	5,000	0	0	13-Jul	19-Jul	14-Jul	13-Jul	14-Jul	Recon
Chilliwack		34,000	✓ 19,000	19,000	19,000	Recon	19,000	0	0	0		09-Jul	10-Jul	10-Jul	10-Jul	Recon
Pitt/Nadina Group ⁴		111,000	✓ 115,000	113,000	117,000	Recon	111,000	4,000	0	0		21-Jul	14-Jul	14-Jul	14-Jul	Recon
Early Thompson ⁵		13,000	● 4,000	3,000	4,000	Recon(2)	3,000	1,000	0	0		27-Jul	29-Jul	25-Jul	29-Jul	Recon(2)
Summer Run	NA	379,000	▲ 274,000	223,000	339,000	Sum	145,000	53,000	68,000	9,000	NA	30-Jul	01-Aug	30-Jul	03-Aug	Weight
Harrison / Widgeon		107,000	▲ 28,000	17,000	46,000	Model	16,000	2,000	1,000	9,000		23-Jul	25-Jul	20-Jul	28-Jul	Model
Late Stuart / Stellako		77,000	● 104,000	91,000	116,000	Recon(2)	80,000	15,000	9,000	0		30-Jul	28-Jul	26-Jul	29-Jul	Recon(2)
Chilko/Quesnel/Raft/NT		196,000	◇ 142,000	115,000	177,000	Model	48,000	36,000	58,000	0		03-Aug	06-Aug	04-Aug	08-Aug	Model

¹ Run timing refers to the date when 50% of the run migrated past the Area 20 reference point.

² 80% Probability Interval: there exists an 80% chance that the true abundance lies within this interval

³ Normally based on test fishery data. Based on Model if Method = Recon(2).

⁴ Pitt / Alouette / Coquitlam / Nadina / Bowron / Gates / Nahatlatch / Taseko

⁵ Early South Thompson / North Barriere.

‡ No in-season assessments will be provided for Early Stuart run size or timing.

Methods for run size & timing estimation

Model	Run size assessment model (median)
Recon	Catch + escapement + 6-day test fish projection + model seaward projection
Recon(2)	Catch + escapement + model projections
Sum	Sum of individual groups
Weight	Weighted average of individual groups

Run Size Uncertainty Legend[†]

- ✓ ≥ 95% of the run size has been accounted for in catch + escapement. The CV associated with the run size is < 5%. Clear indication of run size; minor run size updates still expected
- ≥ 70% of the run size has been accounted for in catch + escapement. The CV associated with the run size is < 20%. Good indication of run size; peak for the run has been observed at Mission, uncertainty relates to seaward abundance
- ▲ ≥ 50% of the run size has been accounted for in catch + escapement. The CV associated with the run size is < 35%. Decent indication of run size.
- ◇ < 50% of the run size has been accounted for in catch + escapement. The CV associated with the run size can be as high as 80%. Uncertain or early indication of run size based on marine data

[†] The Run Size Uncertainty Indicator is a categorical indication of the degree of uncertainty present in the run size estimate. Estimates are categorized quantitatively based on the proportion of the run that has been accounted for with high certainty in catch + escapement.

Summer run size based on timing

Catch+Escapement To Date: **144,000**

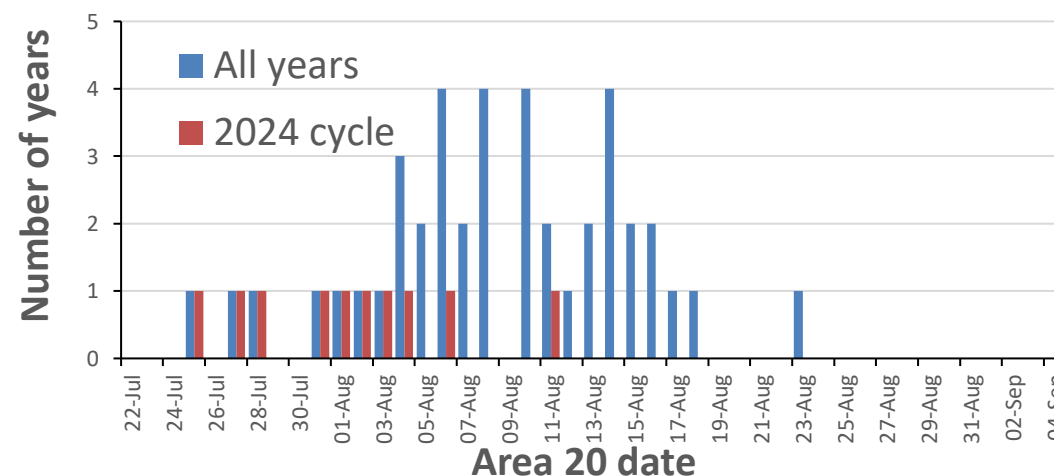
6-day Projection: **53,000**

	Method	Run Size*	% Seaward of Mission
Based on timing of 30-Jul	50% Date	228,000	37%
Based on timing of 01-Aug	50% Date	273,000	47%
Based on timing of 03-Aug	50% Date	322,000	55%
Based on timing of 05-Aug	50% Date	348,000	59%
Based on timing of 07-Aug	% Seaward	453,000	68%

*Based on % seaward in 2012, 2016 and 2020 if timing is later than 05-Aug

*Equal to double the reconstructed abundance if timing is earlier than 06-Aug

Historical 50% migration date for Summer run (n=42)



7a Recommendations on Run Size, Timing, and MA

The following table presents the run size estimates on which run size recommendations from PSC staff will be based. Additional consideration is given to the potential strength of the tail of the run based on past observations. The Panel may either accept or reject the run size recommendations or propose alternative estimates. The run size estimates presented here may not reflect the final estimates adopted by the Fraser River Panel.

Management Group	Run Size				Timing		PSC Staff Recommendation
	Currently Adopted	In-season Estimate	In-season 80% PIs		Currently Adopted	In-season Estimate	
			10% PI	90% PI			
Early Stuart Run	No in-season assessments due to lack of in-season data for Early Stuart in 2024						
Early Summer Run	136,000	138,000	135,000	140,000	Jul 13	Jul 14	Maybe
Summer Run	396,000 (pre-season forecast)	274,000	223,000	339,000	Jul 30	Aug 01	Yes
Late Run							No

Recommended timing estimates are dependent on the recommended run size estimates.

PSC staff recommends pDBE estimates which will be converted into MA estimates for consideration by the Panel. When making a pDBE recommendation, additional consideration is given to the number of observed days of temperature (T) and discharge (Q). The Panel may either accept or reject the MA estimates associated with the pDBE recommendations or propose alternative estimates, by incorporating additional information that is not accounted for in the current quantitative approach. The Management Adjustment estimates presented here may not reflect the final estimates adopted by the Fraser River Panel.

Management Group	pDBE and associated pMA estimate				Observed Days T & Q	PSC Staff Recommendation
	Currently Adopted		In-season estimate			
	pDBE	pMA	pDBE	pMA		
Early Stuart Run	-0.66	1.94	-0.66	1.94	19	No
Early Summer Run	-0.36	0.56	-0.36	0.56	19	No
Summer Run	-0.22	0.28	-0.36	0.56	11	Yes
Late Run	-0.33	0.49	-0.33	0.49		No



DRAFT AGENDA
PSC Fraser River Panel Meeting
In-person: Wall Centre Vancouver Airport
Via Zoom Webinar: <https://psc-org.zoom.us/j/89632608507>

FRP meeting: Tuesday, August 13, 2024 at 10:30 am

	1) Roll Call (Panel and Tech members, others please email Angela Xu, frontdesk@psc.org)	5 min	
	2) Webinar Etiquette: mute phone & chat feature	2 min	
<input checked="" type="checkbox"/>	3) Agenda	5 min	
	4) Overview of run and catch status	5 min	PSC staff
<input checked="" type="checkbox"/>	a) Accounted run to date relative to forecast and adopted run sizes		
<input type="checkbox"/>	b) Catch-to-date by fishery		
<input type="checkbox"/>	c) TAC table		
	5) Biological information	20 min	PSC staff
<input checked="" type="checkbox"/>	a) Test fishing catches and acoustics summary		
<input checked="" type="checkbox"/>	b) Comparison of predictions from Mission to Qualark		
<input type="checkbox"/>	c) Species composition review		
<input checked="" type="checkbox"/>	d) Stock Identification review		
	e) Management Adjustment (MA) considerations		
<input checked="" type="checkbox"/>	i) Environmental report & current temperatures in areas of Fraser Watershed		
<input checked="" type="checkbox"/>	ii) pDBE forecast and sensitivity analysis		
<input type="checkbox"/>	iii) Discharge and migration passage at Big Bar		
<input type="checkbox"/>	iv) Report on fish condition		DFO
<input type="checkbox"/>	v) Spawning ground reports		DFO
	6) Assessment information	20 min	PSC staff
<input checked="" type="checkbox"/>	a) Daily migration graphs		
<input type="checkbox"/>	b) Predicted abundance en route to Mission		
<input type="checkbox"/>	c) Diversion rate		
<input type="checkbox"/>	d) Technical assessment information		
<input checked="" type="checkbox"/>	e) Run size and timing estimates		
<input type="checkbox"/>	f) Predicted allowable harvest based on run size and DBE scenarios		
<input type="checkbox"/>	g) Criteria for fishing decisions table		
<input type="checkbox"/>	h) Catch evaluation		
	7) Recommendations on run size, migration timing and MA	10 min	
<input checked="" type="checkbox"/>	a) PSC recommendations		PSC staff
	b) Canadian and/or U.S. recommendations		Panel
	c) Panel decision		
	8) Fisheries recommendations		
	a) Canadian and U.S. proposals		Panel
	b) Staff evaluation		PSC staff
	c) Canadian and U.S. evaluation		Panel
	d) Panel decision		
<input type="checkbox"/>	9) Assessments from other areas	5 min	PSC staff
<input checked="" type="checkbox"/>	10) Other business	10 min	Panel
	a) Other?		
<input checked="" type="checkbox"/>	11) Next FRP meeting and agenda	2 min	PSC staff/Panel
	12) Next TC meeting		PSC staff

Legend: Content included in the distribution

Not included in the distribution due to not relevant for this meeting or no (new) information