

**How pre-season forecasts are used in Fraser sockeye management.**

**A. Use of forecasts in the Fraser River Panel's pre-season planning process.**

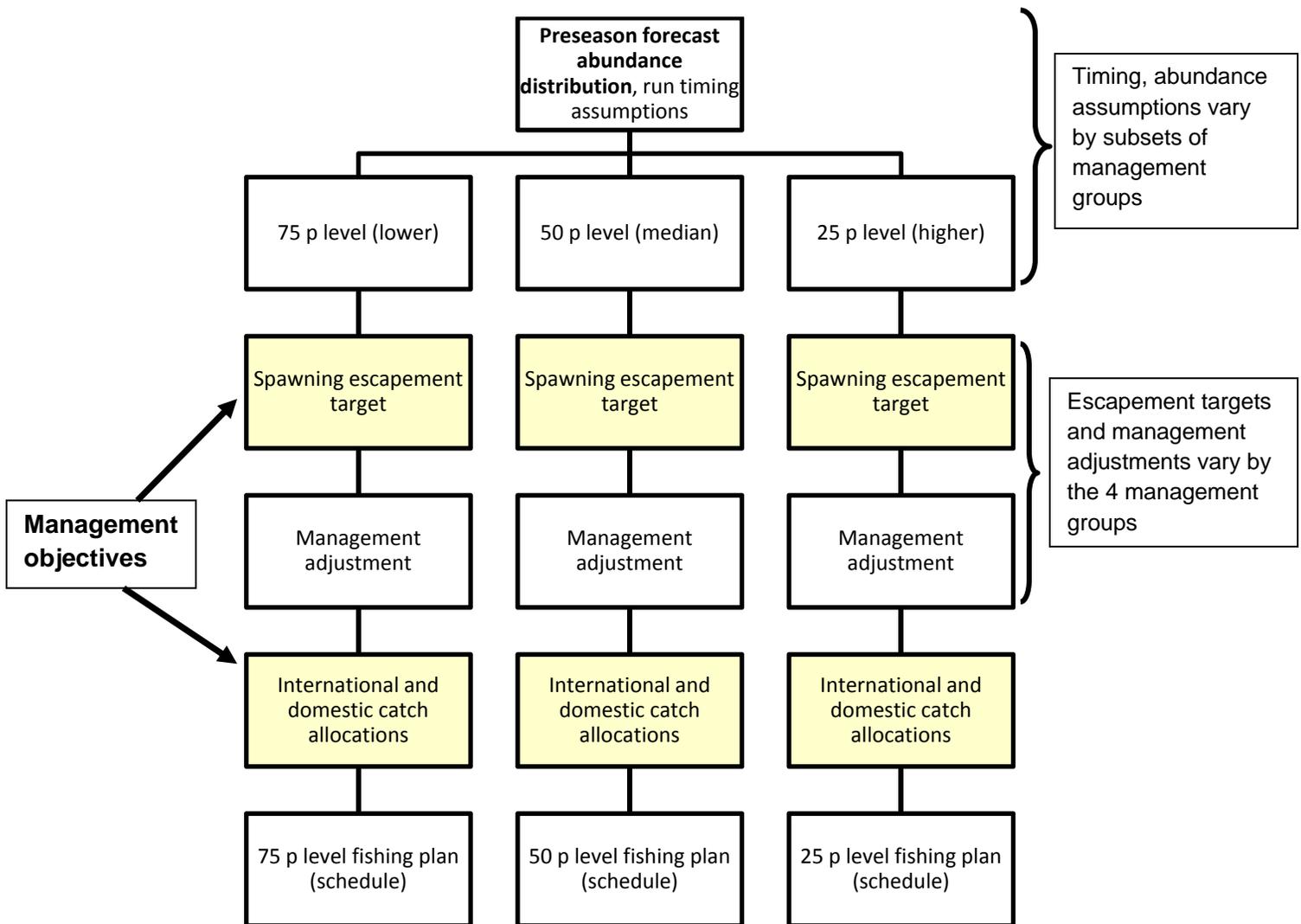


Figure 1. Schematic of how pre-season forecasts of abundance are used in planning prior to the fishing season. The forecast distribution of abundances is used to define scenarios of low (75 p level), medium (50 p level or median) and high (25p level) potential return abundances. Escapement targets, management adjustments and catch allocations vary as a function of abundance for each of the four management groups (Early Stuart, Early Summer, Summer and Late). Management adjustments are increments that are added to the escapement targets to compensate for either systematic assessment errors, or en-route losses that cause upper river escapement estimates to be less than lower river estimates. A schedule of potential fisheries is developed under each scenario in order to meet the management objectives highlighted in yellow. Sensitivity analyses are commonly performed that alter the degree of migration overlap (different return timings) of the management groups. In some years, Monte Carlo simulations (varying timing and abundance) were conducted to quantify the probability that a given fishing plan would meet the objectives (e.g., probability that the Cultus exploitation rate limit would be exceeded).

Model inputs - Abundance and timing assumptions

PACIFIC SALMON COMMISSION SOCKEYE FISHERY MODEL		SUMMARY OF INPUTS										YEAR	2009
p Level: 50%		STOCK...										FIRST MO.:	5
Enter stock Names-->												FIRST SUN:	31
												Late runs only....	
												85%	15%
		E. Stu	E. Misc.	Sc/Sy/N.Tom	L.Stu/Stell	Chilko	Quesnel	Birk	Harrison	L. Early	L. Normal	TOTALS	Fraser Pinks
Enter Run Size-->		165,000	379,000	360,000	927,000	4,175,000	3,575,000	334,000	69,000	428,400	75,600	10,488,000	17,535,000
Enter South Diversion-->		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Approach Number		165,000	379,000	360,000	927,000	4,175,000	3,575,000	334,000	69,000	428,400	75,600	10,488,000	17,535,000
A 27 Peak		27-Jun	18-Jul	25-Jul	28-Jul	30-Jul	01-Aug	03-Aug	26-Jul	04-Aug	04-Aug		17-Aug
A 20 Peak		02-Jul	23-Jul	30-Jul	02-Aug	04-Aug	06-Aug	11-Aug	03-Aug	12-Aug	12-Aug	CHECK <	25-Aug
A 11 Peak		28-Jun	19-Jul	26-Jul	29-Jul	31-Jul	02-Aug	07-Aug	30-Jul	08-Aug	08-Aug		21-Aug
Spread:		25	30	30	25	25	30	25	35	25	25		30
p Level: -->		75%	50%	50%	50%	50%	50%	50%	50%	50%	50%		50%
75% POINT -->		165,000	237,000	206,000	469,000	2,870,000	1,575,000	194,000	46,000	235,450	41,550	6,039,000	12,490,000
50% POINT -->		255,000	379,000	360,000	927,000	4,175,000	3,575,000	334,000	69,000	428,400	75,600	10,578,000	17,535,000
25% POINT -->		426,000	639,000	699,000	1,999,000	6,136,000	7,936,000	533,000	160,000	784,550	138,450	19,451,000	24,858,000

How abundance and timing assumptions are used in the planning model

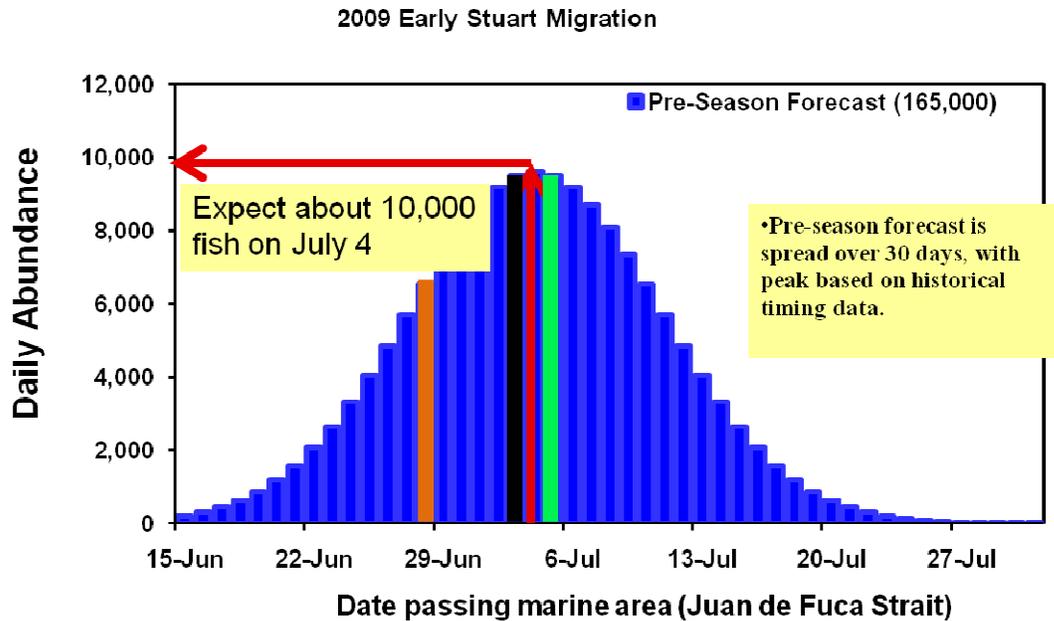


Fig. 1. The pre-season planning model spreads the total forecast (165,000) over about 30 days with a peak abundance based on either the timing forecast or historical timing data. This schematic of the migration is called a **timing - abundance curve** and is frequently displayed a line rather than bar type chart.

The fish travel 30-40 kilometers per day so on July 4<sup>th</sup>, the peak of the run would be passing Port Renfrew (location of PSC test fishery; blue bar and red arrow). The fish that passed Port Renfrew on the July 3<sup>rd</sup> (black bar in Fig 1.) would now be 30-40km closer to the Fraser River than Port Renfrew. Conversely, the fish destined to pass Port Renfrew on July 5<sup>th</sup> (green bar) would be 30-40km seaward of Port Renfrew. The fish that passed Port Renfrew on June 28<sup>th</sup> would now be at Mission (about 6 days for fish to swim from Port Renfrew to Mission). This movement of fish in space and time is frequently referred to as a **“box car” model**, because it may be useful to think of a train with 30 freight cars (corresponding to the daily migration); each freight car carrying the number of fish associated with that day’s migration. As each day passes the train shifts down the track along the migration route of the fish.

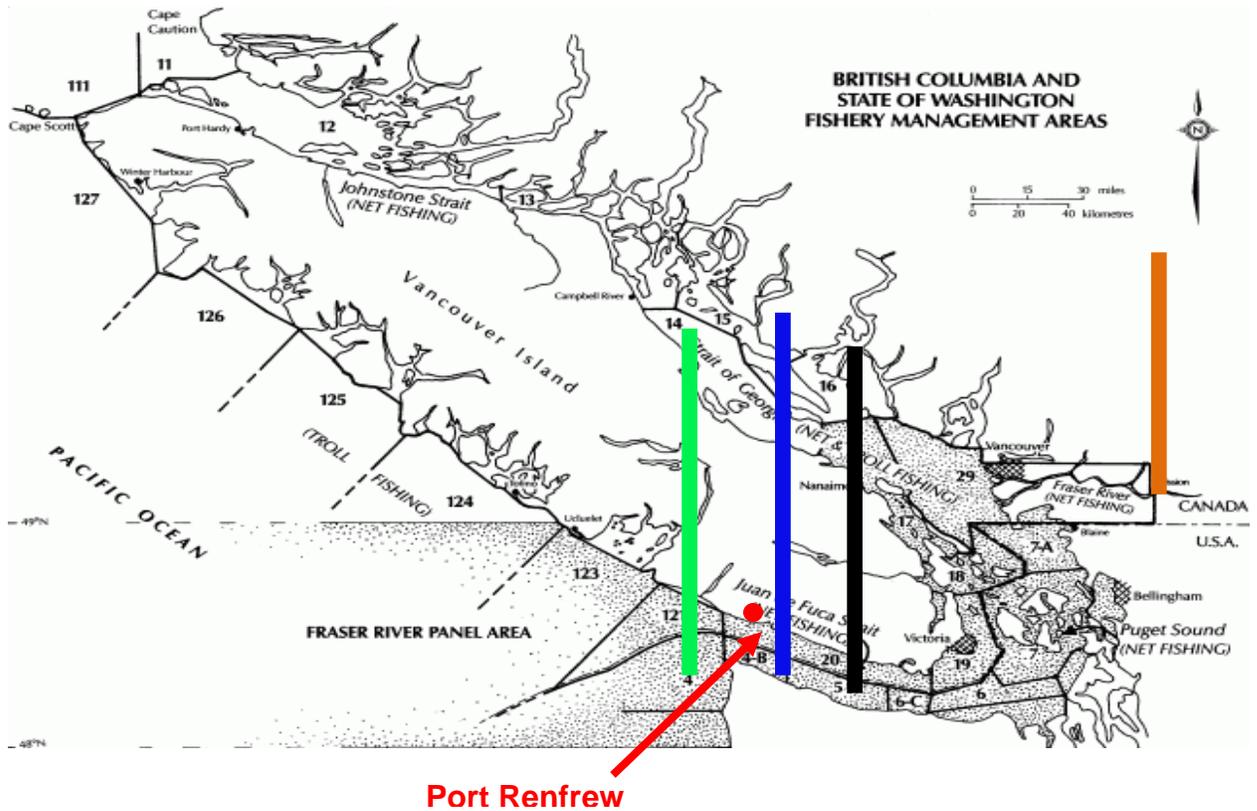


Fig. 2 Approximate locations of fish from timing abundance pattern show in Fig 1 on July 4<sup>th</sup> . Peak of the run (blue bars) would be at Port Renfrew. The July 5<sup>th</sup> group of fish (green bars) would be about 30-40km seaward. The July 3<sup>rd</sup> group of fish (black bar) would be about 30-40km closer to the Fraser River. The June 28<sup>th</sup> group of fish (orange bars) would be expected to be passing Mission.

Model inputs related to management objectives and other expected catches (in-river and marine area aboriginal harvests) that are not formally planned by FRP but are required to determine total harvests

**Net Escapement goals**

	<b>E.STU.</b>	<b>E.SUMM.</b>	<b>SUMM.</b>	<b>BIRK</b>	<b>L.LATE</b>	<b>TOTAL</b>
75%	156,000	195,000	1,966,000	78,000	258,000	2,653,000
50%	156,000	296,000	3,471,000	134,000	458,000	4,515,000
25%						-

**Management Adjustments**

	<b>E.STU.</b>	<b>E.SUMM.</b>	<b>SUMM.</b>	<b>BIRK</b>	<b>LATE</b>	<b>TOTAL</b>
75%	46%	40%	0%		1231%	
50%	46%	40%	0%		1231%	
25%	46%	40%	0%		1231%	

Upstream Timing: 16-Aug

**FRA 400,000 Exemption (Input)**

	<b>E.STU.</b>	<b>E.SUMM.</b>	<b>SUMM.</b>	<b>BIRK</b>	<b>LATE</b>	<b>TOTAL</b>
75%	10,000	30,600	342,600	5,800	11,000	400,000
50%	10,000	30,600	342,600	5,800	11,000	400,000
25%						-

**Test Fishing**

	<b>E.STU.</b>	<b>E.SUMM.</b>	<b>SUMM.</b>	<b>BIRK</b>	<b>LATE</b>	<b>TOTAL</b>
75%	2,400	5,100	33,700	1,100	1,400	43,700
50%	3,700	8,000	50,400	1,500	2,000	65,600
25%	5,000	12,000	57,000	2,000	3,100	79,100

**Additional FRA (Input)**

	<b>E.STU.</b>	<b>E.SUMM.</b>	<b>SUMM.</b>	<b>BIRK</b>	<b>LATE*</b>	<b>TOTAL</b>
75%	-	35,000	279,000	5,000	30,000	349,000
50%	-	35,000	279,000	5,000	30,000	349,000
25%	-	-	-	-	-	-

**Marine AF**

	<b>E.STU.</b>	<b>E.SUMM.</b>	<b>SUMM.</b>	<b>BIRK</b>	<b>LATE</b>	<b>TOTAL</b>
75%	-	18,600	219,000	8,400	14,000	260,000
50%	-	18,600	219,000	8,400	14,000	260,000
25%	-	24,000	182,000	26,000	28,000	260,000

50 p run size  
Fishery schedule

Canada Fisheries

US fisheries

		G TROLL																					
		A 127	A 124	A 12	A 20 B	A 20 B	A 12 D	A 12-13B	A 12-13B	A 12 H	A 12 H	A 16 B	A 18-5H	A 18-5H	A 29 H	A 29 E	I-R	FRA	FRA				
		DAYS	DAYS	DAYS	DAYS	CATCH	DAYS	DAYS	CATCH	DAYS	CATCH	DAYS	CATCH	DAYS	DAYS	Rec	St-Har	Har-SM	A 4B	TI PRIOR	NI	TI POST	
17-Jul	F	0	0	0	0		0	0		0	0	0		0	0	0	0	2	0	0	0	0	
18-Jul	S	0	0	0	0		0	0		0	0	0		0	0	0	1	0	0	0	0	0	
19-Jul	S	0	0	0	0		0	0		0	0	0		0	0	0	0	0	0	0	0	0	
20-Jul	M	0	0	0	0		0	0		0	0	0		0	0	0	0	0	1	0	0	0	
21-Jul	T	0	0	0	0		0	0		0	0	0		0	0	0	0	0	1	0	0	0	
22-Jul	W	0	0	0	0		0	0		0	0	0		0	0	0	0	0	1	0	0	0	
23-Jul	T	0	0	0	0		0	0		0	0	0		0	0	0	0	0	1	0	0	0	
24-Jul	F	0	0	0	0		0	0		0	0	0		0	0	0	0	3	1	0	0	0	
25-Jul	S	0	0	0	0		0	0		0	0	0		0	0	0	2	0	1	0	0	0	
26-Jul	S	0	0	0	0		2	0		6	40000	0	1	1210	0	0	0	0	1	0	0	0	
27-Jul	M	0	0	0	5	300000	0	5	200000	0	0	1	1210	0	0	1	0	0	1	0	0	0	
28-Jul	T	0	0	0	0		0	0	0	0	0	1	1210	0	0	1	0	0	1	0	0	0	
29-Jul	W	0	0	0	0		0	0		0	0	1	1210	0	0.5	1	0	0	1	1	0	0	
30-Jul	T	0	0	0	0		0	0		0	0	1	1210	0	0	1	0	0	1	0	1	0	
31-Jul	F	0	0	0	0		0	0		0	0	1	1210	0	0	1	0	3	1	0	0	1	
1-Aug	S	0	0	0	0		0	0		0	0	0		0	0	1	2	0	1	0	0	0	
2-Aug	S	0	0	0	0		0	0		6	45000	0	1	2345	0	0	1	0	0	1	0	0	
3-Aug	M	0	0	0	5	320000	3	5	240000	0	0	1	2345	0	0.5	1	0	0	1	0	0	0	
4-Aug	T	0	0	0	0		0	0		0	0	1	2345	0	0	1	0	0	1	0	0	0	
5-Aug	W	0	0	0	0		0	0		0	0	1	2345	0	0.5	1	0	0	1	1	0	0	
6-Aug	T	0	0	0	0		0	0		0	0	1	2345	0	0	1	0	0	1	0	1	0	
7-Aug	F	0	0	0	0		1	0		0	0	1	2345	0	0	1	0	3	1	0	0	1	
8-Aug	S	0	0	0	0		0	0		0	0	0		0	0	1	2	0	1	0	0	0	
9-Aug	S	0	0	0	0		0	0		6	22000	0	1	1100	0	0	1	0	0	1	0	0	
10-Aug	M	0	0	0	0		0	0		0	0	1	1100	0	0	1	0	0	1	0	0	0	
11-Aug	T	0	0	0	0		0	0		0	0	1	1100	0	0	1	0	0	0	0	0	0	
12-Aug	W	0	0	0	0		0	0		0	0	1	1100	0	0	1	0	0	0	0	0	0	
13-Aug	T	0	0	0	0		0	0		0	0	1	1100	0	0	1	0	0	0	0	0	0	
14-Aug	F	0	0	0	0		0	0		0	0	1	1100	0	0	1	0	2	0	0	0	0	
15-Aug	S	0	0	0	0		0	0		0	0	0		0	0	1	1	0	0	0	0	0	
16-Aug	S	0	0	0	0		0	0		0	0	0		0	0	1	0	0	0	0	0	0	
17-Aug	M	0	0	0	0		0	0		0	0	0		0	0	1	0	0	0	0	0	0	
18-Aug	T	0	0	0	0		0	0		0	0	0		0	0	1	0	0	0	0	0	0	
19-Aug	W	0	0	0	0		0	0		0	0	0		0	0	1	0	0	0	0	0	0	
20-Aug	T	0	0	0	0		0	0		0	0	0		0	0	1	0	0	0	0	0	0	
21-Aug	F	0	0	0	0		0	0		0	0	0		0	0	0	0	1	0	0	0	0	
22-Aug	S	0	0	0	0		0	0		0	0	0		0	0	0	1	0	0	0	0	0	

Canada Fisheries

FISHERY ENTRY

75 p (lower) run  
size Fishery  
schedule

US fisheries

	A 20 B	A 20 B	A 12 D	A 12-13B	A 12-13B	A 12 H	A 12 H	A 16 B	A 18-5H	A 18-5H	A 29 H	A 29 E	I-R	FRA	FRA	A 4B	TI PRIOR	NI	TI POST
	DAYS	CATCH	DAYS	DAYS	CATCH	DAYS	CATCH	DAYS	DAYS	CATCH	DAYS	DAYS	Rec	St-Har	Har-SM	DAYS	DAYS	DAYS	DAYS
17-Jul F	0		0	0		0		0	0		0	0	0	0	2	0	0	0	0
18-Jul S	0		0	0		0		0	0		0	0	0	1	0	0	0	0	0
19-Jul S	0		0	0		0		0	0		0	0	0	0	0	1	0	0	0
20-Jul M	0		0	0		0		0	0		0	0	0	0	0	1	0	0	0
21-Jul T	0		0	0		0		0	0		0	0	0	0	0	1	0	0	0
22-Jul W	0		0	0		0		0	0		0	0	0	0	0	1	0	0	0
23-Jul T	0		0	0		0		0	0		0	0	0	0	0	1	0	0	0
24-Jul F	0		0	0		0		0	0		0	0	0	0	3	1	0	0	0
25-Jul S	0		0	0		0		0	0		0	0	0	2	0	1	0	0	0
26-Jul S	5	16100	0	5	104000	6	23120	0	1	625	0	0	0	0	0	1	0	0	0
27-Jul M	0		0	0		0		0	1	625	0	0	0	0	0	1	0	0	0
28-Jul T	0		0	0		0		0	1	625	0	0	0	0	0	1	0	0	0
29-Jul W	0		2	0		0		0	1	625	0	0.25	0	0	0	1	0	0	0
30-Jul T	0		0	0		0		0	1	625	0	0	1	0	0	1	1	0	0
31-Jul F	0		0	0		0		0	1	625	0	0	1	0	3	1	0	1	0
1-Aug S	0		0	0		0		0	0		0	0	1	2	0	1	0	0	1
2-Aug S	5	140000	0	5	123400	6	19850	0	1	1000	0	0	1	0	0	1	0	0	0
3-Aug M	0		0	0		0		0	1	1000	0	0	1	0	0	1	0	0	0
4-Aug T	0		0	0		0		0	1	1000	0	0	1	0	0	1	0	0	0
5-Aug W	0		2	0		0		0	1	1000	0	0.5	1	0	0	1	0	0	0
6-Aug T	0		0	0		0		0	1	1000	0	0	1	0	0	1	1	0	0
7-Aug F	0		0	0		0		0	1	1000	0	0	1	0	3	1	0	1	0
8-Aug S	0		0	0		0		0	0		0	0	1	2	0	1	0	0	1
9-Aug S	0		0	0		0		0	0		0	0	1	0	0	0	0	0	0
10-Aug M	0		0	0		0		0	0		0	0	1	0	0	0	0	0	0
11-Aug T	0		0	0		0		0	0		0	0	1	0	0	0	0	0	0
12-Aug W	0		0	0		0		0	0		0	0	1	0	0	0	0	0	0
13-Aug T	0		0	0		0		0	0		0	0	1	0	0	0	0	0	0
14-Aug F	0		0	0		0		0	0		0	0	1	0	2	0	0	0	0
15-Aug S	0		0	0		0		0	0		0	0	1	1	0	0	0	0	0
16-Aug S	0		0	0		0		0	0		0	0	1	0	0	0	0	0	0
17-Aug M	0		0	0		0		0	0		0	0	1	0	0	0	0	0	0
18-Aug T	0		0	0		0		0	0		0	0	0	0	0	0	0	0	0
19-Aug W	0		0	0		0		0	0		0	0	0	0	0	0	0	0	0
20-Aug T	0		0	0		0		0	0		0	0	0	0	0	0	0	0	0
21-Aug F	0		0	0		0		0	0		0	0	0	0	1	0	0	0	0
22-Aug S	0		0	0		0		0	0		0	0	0	1	0	0	0	0	0

Model output reviewed with Bilateral Fraser River Panel

Model run comparisons: June 16

Comments	DBE Early Summer Spawners to the Grounds (296,000)	DBE Summer Spawners to the Grounds (3,471,000)	DBE "Late-Lates" Spawners to the Grounds (458,000)	U.S. TAC	Canada TAC	U.S. Catch	Canada Catch	Total Catch	Early Summer Exploit Rate	Summer Exploit Rate	Cultus Exploit Rate	"Late- Lates" Exploit Rate	Potential Spawning Escapement "Late-Lates"
Harvest within constraints, 50% p 75%p EStu, 50% diversion, Bayes MA's June timings, Quotas	302,107	4,939,848	53,087	889,100	4,899,400	551,473	3,651,079	4,202,552	43.3%	43.1%	16.8%	20.4%	456,146
> Harvest within constraints, 50% p 75%p EStu, 28% diversion, Bayes MA's June timings, Quota	300,637	5,077,690	49,636	889,100	4,899,400	624,523	3,427,966	4,052,489	43.4%	41.4%	16.6%	20.1%	457,614
Canada & US harvest full TAC, 50% p 75%p EStu, 28% diversion, Bayes MA's June timings, Quota	239,380	3,592,626	46,258	889,100	4,899,400	888,703	4,863,104	5,751,807	51.8%	58.6%	31.9%	35.3%	370,450
US Harvests full share, Canada adjusts, 50% p 75%p EStu, 28% diversion, Bayes MA's June timings, Quota	283,992	4,846,339	48,775	889,100	4,899,400	886,329	3,427,205	4,313,534	45.7%	44.1%	17.9%	21.5%	449,674
Harvest within constraints, 75% p all stocks, 28% diversion, Bayes MA's June timings, Quota	196,002 (195,000)	2,905,183 (1,966,000)	27,888 (258,000)	472,700	2,792,400	310,988	1,946,987	2,257,975	38.8%	40.8%	17.1%	20.4%	257,112

→ More detailed output for model run shown in second row - provided to each countries caucus (not typically discussed bilaterally) See remaining pages.

**PACIFIC SALMON COMMISSION  
SOCKEYE FISHERY MODEL**

2009

	50% p Level		Run:	
	Goal	%	Modeled	%
<b>Predicted Total Run:</b>	<b>10,488,000</b>	<b>100.00%</b>	<b>10,488,000</b>	<b>100.00%</b>
<b>Commercial Catch:</b>	<b>5,358,500</b>	<b>51.09%</b>	<b>3,596,520</b>	<b>34.29%</b>
<b>Gross Escapement:</b>	<b>5,593,900</b>	<b>53.34%</b>	<b>7,374,367</b>	<b>70.31%</b>
<b>Test Fishing Catch:</b>	<b>64,700</b>	<b>0.62%</b>	<b>70,829</b>	<b>0.68%</b>
<b>Non Commercial (Marine)</b>	<b>291,435</b>	<b>2.78%</b>	<b>291,435</b>	<b>2.78%</b>
<b>U.S. Goal/Catch:</b>	<b>889,100</b>	<b>100.00%</b>	<b>624,523</b>	<b>100.00%</b>
<b>Treaty Indian Catch:</b>	<b>601,921</b>	<b>67.70%</b>	<b>417,750</b>	<b>66.89%</b>
<b>Non Indian Catch:</b>	<b>287,179</b>	<b>32.30%</b>	<b>206,773</b>	<b>33.11%</b>
<b>Canadian Commercial Catch:</b>	<b>3,720,400</b>	<b>100.00%</b>	<b>2,126,829</b>	<b>100.00%</b>
<b>Canadian Allocation/Catch:</b>				
<b>Area "B" Purse Seine</b>	<b>1,767,190</b>	<b>47.50%</b>	<b>1,008,232</b>	<b>47.41%</b>
<b>Area "D" Gillnet</b>	<b>799,886</b>	<b>21.50%</b>	<b>474,631</b>	<b>22.32%</b>
<b>Area "E" Gillnet</b>	<b>930,100</b>	<b>25.00%</b>	<b>516,158</b>	<b>24.27%</b>
<b>Area "G" Troll</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>
<b>Area "H" Troll</b>	<b>223,224</b>	<b>6.00%</b>	<b>127,808</b>	<b>6.01%</b>
<b>Area "F" Troll</b>	<b>0</b>		<b>0</b>	
<b>Canadian Other Catch</b>				
<b>Recreational</b>	<b>170,000</b>	<b>NA</b>	<b>194,634</b>	<b>NA</b>
<b>Fraser River Aboriginal</b>	<b>749,000</b>	<b>NA</b>	<b>845,168</b>	<b>NA</b>
<b>Marine AFS</b>	<b>260,000</b>	<b>NA</b>	<b>261,335</b>	<b>NA</b>

Harvest within constraints, 50% p 75%p EStu, 28% diversion, Bayes MA's June timings, Quota

TOTAL RUN ENTERING EACH AREA...

FISHERY AREA	E. Stu	E. Misc. Sy/N.Tom	L.Stu/Stell	Chilko	Quesnel	Birk	Harrison	L. Early	L. Normal	TOTALS	
Total Run	165,000	379,000	360,000	927,000	4,175,000	3,575,000	334,000	69,000	428,400	75,600	10,488,000
S. Diversion	95%	80%	75%	73%	72%	71%	69%	75%	69%	69%	72%
N. Diversion	5%	20%	25%	27%	28%	29%	31%	25%	31%	31%	28%
A 127 Peak	27-Jun	18-Jul	25-Jul	28-Jul	30-Jul	1-Aug	3-Aug	26-Jul	4-Aug	4-Aug	N/A
A 20 Peak	2-Jul	23-Jul	30-Jul	2-Aug	4-Aug	6-Aug	11-Aug	3-Aug	12-Aug	12-Aug	N/A
A 11 Peak	28-Jun	19-Jul	26-Jul	29-Jul	31-Jul	2-Aug	7-Aug	30-Jul	8-Aug	8-Aug	N/A
A 12 Peak	29-Jun	20-Jul	27-Jul	30-Jul	1-Aug	3-Aug	8-Aug	31-Jul	9-Aug	9-Aug	N/A
Spread	25	30	30	25	25	30	25	35	25	25	N/A
South Run	156,030	302,669	269,965	675,392	2,989,034	2,529,139	231,770	51,410	295,294	52,109	7,552,812
Area 20	156,026	287,616	247,222	606,968	2,701,426	2,332,326	220,572	47,469	283,213	49,979	6,932,817
Area 4B	153,578	283,452	243,909	599,074	2,667,201	2,304,537	218,259	46,878	280,372	49,476	6,846,736
Area 7	153,567	281,512	241,857	593,801	2,645,556	2,288,909	217,319	46,539	279,671	49,354	6,798,085
Area 7A	153,563	274,184	231,663	564,205	2,523,675	2,205,090	212,781	44,805	274,658	48,471	6,533,095
North Run	8,968	76,329	90,034	251,609	1,185,967	1,045,852	102,228	17,590	133,106	23,494	2,935,177
Area 12	8,968	76,329	90,034	251,609	1,185,967	1,045,852	102,228	17,590	133,106	23,494	2,935,177
Area 13	8,965	60,465	64,042	170,358	829,942	796,007	87,490	13,328	116,764	20,608	2,167,969
Area 16	8,921	51,839	50,466	129,135	638,786	641,869	74,258	10,794	100,430	17,729	1,724,227
Area 29B	162,467	313,034	267,046	653,814	3,010,307	2,742,933	282,426	53,226	0	0	7,485,253
Area 29D	162,282	270,697	233,265	587,984	2,796,585	2,592,397	279,243	48,759	0	0	6,971,212
To Gulf:	162,469	314,152	268,233	656,786	3,021,816	2,750,922	282,804	53,411	370,465	65,382	7,946,440
From North	8,921	51,839	50,466	129,135	638,786	641,869	74,258	10,794	100,430	17,729	1,724,227
From South	153,548	262,313	217,767	527,651	2,383,030	2,109,053	208,546	42,617	270,035	47,653	6,222,213
Gross Esc:	162,282	270,197	232,765	586,784	2,782,985	2,580,797	278,243	48,559	366,654	65,101	7,374,367
						To Spawning grounds:			49,636		49,636
Goal:	232,800	239,700	250,500	450,271	2,027,862	1,736,567	149,400	61,000	378,900	66,900	5,593,900
Lost:	2	2	1	-1	-1	13	2	0	1	-2	17

TOTAL CATCH BY STOCK...

FISHERY AREA	E. Stu	E. Misc. Sy/N.Tom	L.Stu/Stell	Chilko	Quesnel	Birk	Harrison	L. Early	L. Normal	TOTALS	
North Area	0	0	0	0	0	0	0	0	0	0	
Area 125-7, 12	0	0	0	0	0	0	0	0	0	0	
Area 123-4	0	0	0	0	0	0	0	0	0	0	
Area 20	4	15,053	22,743	68,424	287,608	196,813	11,198	3,941	12,081	2,130	619,995
Area 4B	11	1,940	2,052	5,273	21,645	15,628	940	339	701	122	48,651
Area 7	4	7,328	10,194	29,596	121,881	83,819	4,538	1,734	5,013	883	264,990
Area 7A	15	11,871	13,896	36,554	140,645	96,037	4,235	2,188	4,623	818	310,882
Area 11	0	0	0	0	0	0	0	0	0	0	0
Area 12	3	15,864	25,992	81,251	356,025	249,845	14,738	4,262	16,342	2,886	767,208
Area 13	2	5,618	7,728	22,166	91,063	62,813	3,121	1,160	3,391	597	197,659
Area 16	0	0	0	0	0	0	0	0	0	0	0
Area 18	2	1,118	1,187	2,972	11,509	7,985	378	185	402	71	25,809
Area 29	185	42,337	33,781	65,830	213,722	150,536	3,183	4,467	2,108	9	516,158
In-River Rec	2	2,262	3,772	11,704	74,395	63,118	6,419	1,071	1,594	197	164,534
MAFS/Sport	12	3,381	6,665	21,705	120,964	108,137	11,577	1,657	14,760	2,577	291,435
I-R FRA	9,839	45,087	33,004	73,168	345,576	304,915	13,742	3,030	14,606	2,201	845,168
Test Fish	2,478	4,291	2,996	6,446	26,954	22,577	1,847	508	2,324	408	70,829
Total:	12,557	156,150	164,010	425,089	1,811,987	1,362,223	75,916	24,542	77,945	12,899	4,123,318

Commercial Total: U.S.: 624,523 853,385 Canada: 2,126,829 112,581

PROJECTED WEEKLY SOCKEYE CATCH SUMMARY BY AREA  
SOUTHERN APPROACH AREAS

W.E. DATE	Treaty Indian			Non Indian			U.S.		Days of Fishing			T.I		
	A 127	A 124	A 20	A 4B-6C	A 7	A 7A	A 7	A 7A	Total	A 20 B	A 20 E		T.I.	N.I.
20-Jun-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27-Jun-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4-Jul-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11-Jul-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18-Jul-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-Jul-09	0	0	0	4,223	0	0	0	0	4,223	0	0	0	0	0
1-Aug-09	0	0	199,998	13,628	52,909	64,221	23,956	25,551	180,265	5	0	7	1	1
8-Aug-09	0	0	366,664	21,501	109,278	138,799	76,452	78,778	424,808	5	0	7	1	1
15-Aug-09	0	0	53,333	9,189	0	0	0	0	9,189	0	0	2	0	0
22-Aug-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29-Aug-09	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5-Sep-09	0	0	0	104	1,388	2,268	892	1,082	5,734	0	0	7	1	1
12-Sep-09	0	0	0	6	88	148	27	35	304	0	0	6	2	2
Totals:	0	0	619,995	48,651	163,663	205,436	101,327	105,446	624,523	10	0	35	5	5

ROJECTED WEEKLY SOCKEYE CATCH SUMMARY BY AREA  
JOHNSTONE STRAIT AND AREA 29

W.E. DATE	CANADA			U.S.			Days of Fishing			FRA			
	A 12 "G"	A 11-13 "D"	A 12-13 "B"	Commerc. All Areas	A 29 "E"	A 7A "H"	Up-River Escape	L. Normal Gulf	A 11-13 "D"		A 16 "B"	A 29 "B"	
20-Jun-09	0	0	0	0	0	0	0	547	0	0	0	0.0	
27-Jun-09	0	0	0	0	0	0	0	7,107	0	0	0	0.0	
4-Jul-09	0	0	0	0	0	0	0	34,306	0	0	0	0.0	
11-Jul-09	0	0	0	0	0	0	0	67,589	0	0	0	0.0	
18-Jul-09	0	0	0	0	0	0	0	77,402	3	0	0	0.0	
25-Jul-09	0	0	0	0	0	0	0	191,713	253	0	0	0.0	
1-Aug-09	0	180,603	188,239	368,842	204,682	7,258	820,141	545,446	4,094	3	5	1.0	
8-Aug-09	0	294,028	199,998	494,026	311,476	14,070	1,226,221	1,117,943	26,200	4	5	0.8	
15-Aug-09	0	0	0	0	0	4,481	69,545	2,086,015	122,771	0	0	0.0	
22-Aug-09	0	0	0	0	0	0	0	2,066,867	177,521	0	0	0.0	
29-Aug-09	0	0	0	0	0	0	0	761,421	88,722	0	0	0.0	
5-Sep-09	0	0	0	0	0	0	0	151,450	14,754	0	0	0.0	
12-Sep-09	0	0	0	0	0	0	0	13,991	1,030	0	0	0.0	
Totals:	0	474,631	388,237	862,868	101,999	25,809	2,126,829	7,121,797	435,348	7	10	16	2

TAC CALCULATION TABLE:

	E.STU.	E.SUMM.	SUMM.	BIRK.	LATE	TOTAL
<b>TOTAL RUN:</b>	165,000	739,000	8,677,000	334,000	573,000	10,488,000
Blank	-	-	-	-	-	-
<b>DEDUCTIONS</b>						
NET ESC.	156,000	296,000	3,471,000	134,000	458,000	4,515,000
FRA EXEMPTION:	5,000	31,000	347,000	5,900	11,100	400,000
MANAGEMENT IMPRECISION	-	-	-	-	-	-
TEST FISH:	2,400	8,000	50,400	1,500	2,400	64,700
MANAGEMENT ADJUSTMENT	71,800	118,200	-	-	-	190,000
<b>TOTAL DEDUCTIONS</b>	235,200	453,200	3,868,400	141,400	471,500	5,169,700
<b>TAC FOR INTERNATIONAL SHARING:</b>	-	285,800	4,808,600	192,600	101,500	5,388,500
<b>U.S SHARE OF TAC. + PAYBACK:</b>	-	47,200	793,400	31,800	16,700	889,100
<b>CANADIAN SHARE:</b>	5,000	269,600	4,362,200	166,700	95,900	4,899,400
IN-RIVER FRA TOTAL:	5,000	66,000	626,000	10,900	41,100	749,000
OUTSIDE AF TOTAL:	-	18,600	219,000	8,400	14,000	260,000
RECREATIONAL INSIDE	-	10,000	117,700	4,500	7,700	139,900
RECREATIONAL OUTSIDE	-	1,000	26,400	1,000	1,700	30,100
COMMERCIAL SUBTOTAL	-	174,000	3,373,100	141,900	31,400	3,720,400
CDN, COMMERCIAL:	-	174,000	3,373,100	141,900	31,400	3,720,400

	E.STU.	E.SUMM.	SUMM.	BIRK.	LATE	TOTAL
U.S. CATCH	30	47,281	551,078	9,713	16,421	624,523
CANADIAN CATCH:	10,049	265,592	2,992,244	64,356	95,725	3,427,966
<b>TOTAL:</b>	10,079	312,873	3,543,322	74,069	112,146	4,052,489
<b>Net Escapement (after subtraction of MA)</b>	80,641	300,637	5,077,690	258,082	49,636	5,766,686

Exploitation Rates by stock group (Incl T.F.):	7.6%	43.4%	41.4%	22.6%	20.1%	39.3%
				EMA:	10.8%	<-Mortality

FISHERY ENTRY

	G TROLL															FRA		FRA		A 4B	TIPRIOR	NI	TI POST
	A 127	A 124	A 12	A 20 B	A 20 B	A 12 D	A 12-13B	A 12-13B	A 12 H	A 12 H	A 16 B	A 18-5H	A 18-5H	A 29 H	A 29 E	I-R	St-Har	Har-SM					
	DAYS	DAYS	DAYS	DAYS	CATCH	DAYS	DAYS	CATCH	DAYS	CATCH	DAYS	DAYS	CATCH	DAYS	DAYS	Rec	DAYS	DAYS	DAYS	DAYS	DAYS	DAYS	
12-Jul S	0	0	0	0		0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	
13-Jul M	0	0	0	0		0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	
14-Jul T	0	0	0	0		0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	
15-Jul W	0	0	0	0		0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	
16-Jul T	0	0	0	0		0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	
17-Jul F	0	0	0	0		0	0		0	0	0		0	0	0	0	0	2	0	0	0	0	
18-Jul S	0	0	0	0		0	0		0	0	0		0	0	0	1	0	0	0	0	0	0	
19-Jul S	0	0	0	0		0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	
20-Jul M	0	0	0	0		0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	
21-Jul T	0	0	0	0		0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	
22-Jul W	0	0	0	0		0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	
23-Jul T	0	0	0	0		0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	
24-Jul F	0	0	0	0		0	0		0	0	0		0	0	0	0	3	1	0	0	0	0	
25-Jul S	0	0	0	0		0	0		0	0	0		0	0	0	2	0	1	0	0	0	0	
26-Jul S	0	0	0	0		0	0	6	37000	0	1	1210	0	0	0	0	0	1	0	0	0	0	
27-Jul M	0	0	0	0		3	0	0		0	1	1210	0	0	0	0	0	1	0	0	0	0	
28-Jul T	0	0	0	5	300000	0	5	191300	0	0	1	1210	0	0	0	0	0	1	0	0	0	0	
29-Jul W	0	0	0	0		0	0	0		0	1	1210	0	1	0	0	0	1	1	0	0	0	
30-Jul T	0	0	0	0		0	0	0		0	1	1210	0	0	1	0	0	1	0	1	0	0	
31-Jul F	0	0	0	0		0	0	0		0	1	1210	0	0	1	0	3	1	0	0	0	1	
1-Aug S	0	0	0	0		0	0	0		0	0	0	0	0	1	2	0	1	0	0	0	0	
2-Aug S	0	0	0	0		3	0	6	45000	0	1	2345	0	0	1	0	0	1	0	0	0	0	
3-Aug M	0	0	0	5	320000	0	5	200000	0	0	1	2345	0	0.5	1	0	0	1	0	0	0	0	
4-Aug T	0	0	0	0		0	0	0		0	1	2345	0	0	1	0	0	1	0	0	0	0	
5-Aug W	0	0	0	0		0	0	0		0	1	2345	0	0.25	1	0	0	1	1	0	0	0	
6-Aug T	0	0	0	0		0	0	0		0	1	2345	0	0	1	0	0	1	0	1	0	0	
7-Aug F	0	0	0	0		1	0	0		0	1	2345	0	0	1	0	3	1	0	0	0	1	
8-Aug S	0	0	0	0		0	0	0		0	0	0	0	0	1	2	0	1	0	0	0	0	
9-Aug S	0	0	0	0		0	0	4	20000	0	1	1120	0	0	1	0	0	1	0	0	0	0	
10-Aug M	0	0	0	0		0	0	0		0	1	1120	0	0	1	0	0	1	0	0	0	0	
11-Aug T	0	0	0	0		0	0	0		0	1	1120	0	0	1	0	0	0	0	0	0	0	
12-Aug W	0	0	0	0		0	0	0		0	1	1120	0	0	1	0	0	0	0	0	0	0	
13-Aug T	0	0	0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	0	0	0	
14-Aug F	0	0	0	0		0	0	0		0	0	0	0	0	1	0	2	0	0	0	0	0	
15-Aug S	0	0	0	0		0	0	0		0	0	0	0	0	1	1	0	0	0	0	0	0	
16-Aug S	0	0	0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	0	0	0	
17-Aug M	0	0	0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	0	0	0	
18-Aug T	0	0	0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	0	0	0	
19-Aug W	0	0	0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	0	0	0	
20-Aug T	0	0	0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	0	0	0	
21-Aug F	0	0	0	0		0	0	0		0	0	0	0	0	1	0	1	0	0	0	0	0	
22-Aug S	0	0	0	0		0	0	0		0	0	0	0	0	1	1	0	0	0	0	0	0	
23-Aug S	0	0	0	0		0	0	0		0	0	0	0	0	1	0	0	0	0	0	0	0	
24-Aug M	0	0	0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
25-Aug T	0	0	0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
26-Aug W	0	0	0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
27-Aug T	0	0	0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
28-Aug F	0	0	0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	
29-Aug S	0	0	0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	