



WATERSHED TALK

NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

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2019 FRASER SALMON UPDATE

By: Aidan Fisher, FRAFS Biologist

Since the last Watershed Talk, there has been a significant decision regarding the Emergency Listing of Thompson and Chilcotin Steelhead, they will not be listed on the Species At Risk Act. Instead DFO has announced a collaborative management framework to protect Thompson and Chilcotin Steelhead. FRAFS biologists will be providing a summary of the historic, and current management scenarios in a Steelhead specific Watershed Talk. The announced management actions for Thompson and Chilcotin Steelhead will have significant effects on Fraser and approach salmon fisheries this fall.

To date 31,500 Fraser sockeye have been accounted for including fish passage (34,400) at Mission and catch in fisheries (100). Catch in test fisheries has been low to date. It is still early in the migration for Early Summer and Summer sockeye, so there is no immediate cause for concern. Low catches in test fisheries are being confirmed with low estimates of fish passage daily at Mission. It has been noted by PSC staff that at these low daily migration rates for Fraser sockeye determining which fish are chinook and sockeye using acoustic methods is challenging. We will be watching test fishery catches very closely over the next week to see if there is sign of greater sockeye migration.

The PSC staff have recommended a reduction to the in-season run size for Early Stuart which the Panel agreed to 27,000. Reducing the run-size will affect the LAER available for FSC fisheries that intercept Early Stuart in the Fraser. This is inclusive of the minimal Early Stuart directed fisheries in the headwaters and any chinook directed fisheries that may catch Early Stuart sockeye as bycatch.

This summary table will be updated throughout the season as information and decisions become available.

Sockeye Management Group	Pre-Season Planning Forecast (P50)	Run Accounted to Date	In-Season Adopted Run Size	Area 20 Timing (for 50% of run)
Early Stuart	41,000	20,200	27,000	July 8
Early Summer	465,000	10,000	N/A (too early for run size update)	Preseason (July 30)
Summer	3,393,000	1,300	N/A (too early for run size update)	Preseason (Aug 10)
Lates	359,000	0	N/A (too early for run size update)	Preseason (Aug 18)
TOTAL	4,795,000	31,500	N/A (too early for run size update)	Preseason (Aug 9)

Environmental conditions, slightly warmer and lower flows than the 30 year average. Temperature and discharge are heavily affected by current weather. Low snowpack throughout the Fraser watershed means there is little snowmelt influence compared to previous years which can regulate temperature and discharge. Management Adjustments are affected by environmental conditions and could change because observed data are sitting on the breakpoint between normal pMAs and increased pMAs.

Big Bar Slide

Since last week there have been a few developments with regards to the Big Bar slide. This week crew's continued scaling operations at the slide site, which means crews will safely be able to access the slide site early next week.

Fish passage enumeration projects have started, including plans to radio and PIT (Passive Integrated Transponder) tag Fraser sockeye and chinook. Over the next few weeks, as much information as possible is going to be gathered regarding fish passage to better understand how the slide is affecting migration. To date the acoustic units have been re-deployed above and below the slide site. Using all these methods, we may be able to estimate fish passage past Big Bar but it is still too early to provide any well-founded technical information.

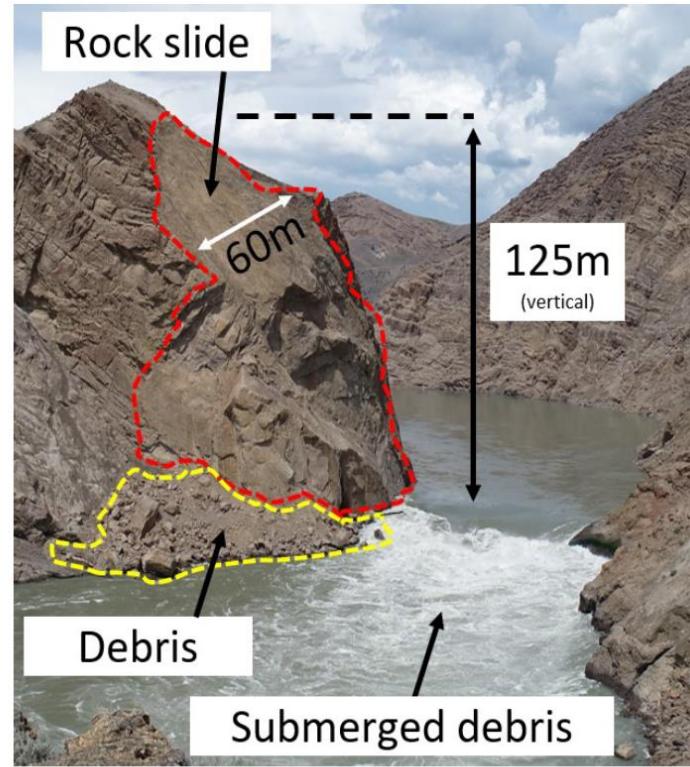
There are a few ideas for assisting fish passage past the Big Bar slide site, including manual rock manipulation to build a fish ladder using large debris from the slide and prefabricated fishway installation. These proposals are being discussed by the panel of experts on the planning team and more details will be released as the work is planned and implemented. The planning group is also discussing fish trap and transportation techniques: including helicopter, truck and WHOOSH canon. Nothing has been decided on for fish passage regarding the WHOOSH canon, but there is active and ongoing discussions on how to assist Fraser salmon past the Big Bar slide.

The FRAFS Operations Manager, Greg Witzky and the Communications Coordinator, Allison James, have both been deployed to the Incident Command Post in Lillooet.

Below is a graphic produce by the Province on July 16, 2019 to show the severity of the slide.



The rock prior to slide.



Scale of the landslide site, for perspective.

Sockeye Closures

Area	Start Date	Start Time	3 Week End Date	4 Week End Date	End Time	Management Action
Areas 111, 121, 123 to 127	23-Jun		15-Jul	22-Jul		Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (Sn, Gn, Tr)
Area 11	23-Jun		15-Jul	22-Jul		Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (Gn, Tr); July 25 (Sn) ^{1,2}
Area 12	23-Jun		15-Jul	22-Jul		Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (Gn, Tr); July 25 (Sn) ^{1,2}
Area 13	23-Jun		15-Jul	22-Jul		Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (Gn, Tr); July 25 (Sn) ¹
Areas 14 to 16	23-Jun		15-Jul	22-Jul		Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (Gn, Tr); Aug 15 (Sn) ¹
Areas 17, 19, 20 and 21	23-Jun		15-Jul	22-Jul		Earliest potential opening to FN FSC fishing for Fraser sockeye = July 15 (Sn, Gn, Tr)
Areas 18 and 29	27-Jun	Noon	19-Jul	26-Jul	Noon	Earliest potential opening to FNs FSC fishing for Fraser sockeye = July 19, noon
Steveston-Mission Bridge	27-Jun	Noon	19-Jul	26-Jul	Noon	Earliest potential opening to FNs FSC fishing for Fraser sockeye = July 22, 6 AM
Mission Bridge-Sawmill Cr	28-Jun	6:00 AM	22-Jul	29-Jul	6:00 AM	FNs FSC: Open to selective fishing for chinook (dip net, angling and potential for 8" mesh gill net) and open in trib for sockeye and chinook.
Sawmill Cr-Texas Cr	03-Jul	6:00 PM	24-Jul	31-Jul	6:00 PM	FNs FSC: Open to selective fishing for chinook (dip net, angling) and open in trib for sockeye and chinook.
Texas Cr-Kelly Cr	03-Jul	6:00 PM	24-Jul	31-Jul	6:00 PM	
Kelly Cr-Deadman	03-Jul	6:00 PM	24-Jul	31-Jul	6:00 PM	
Deadman-Chilcotin	09-Jul	6:00 PM	28-Jul	04-Aug	6:00 PM	FNs FSC: Open to selective fishing for chinook (dip net, angling) and open in trib for sockeye and chinook.
Chilcotin-Quesnel	09-Jul	6:00 PM	28-Jul	04-Aug	6:00 PM	
Quesnel-Hixon	09-Jul	6:00 PM	28-Jul	04-Aug	6:00 PM	
Hixon-Prince George	11-Jul	6:00 PM	02-Aug	09-Aug	6:00 PM	FNs FSC: Open to selective fishing for chinook (dip net and 8" mesh gill net) and open in trib for sockeye and chinook.
Prince George-Stuart R	11-Jul	6:00 PM	02-Aug	09-Aug	6:00 PM	FNs FSC: Some allowable harvest in terminal areas.

¹ Gear restrictions remain in place to protect Sakanaw sockeye until July 25 (Queen Charlotte and Johnstone Straits) and August 15 (northern Strait of Georgia).

² Additional sockeye closures will remain in place in portions of Areas 11 and 12 until late July in waters north of Lewis Point to protect Nimpkish sockeye.

The Early Stuart window closure is in place for the Fraser River and the marine approach area. The end date for the Early Stuart Window closure has not been announced to date. The potential dates for each region are in the table above, from the Draft 2019-2020 Southern Salmon IFMP (p. 392).

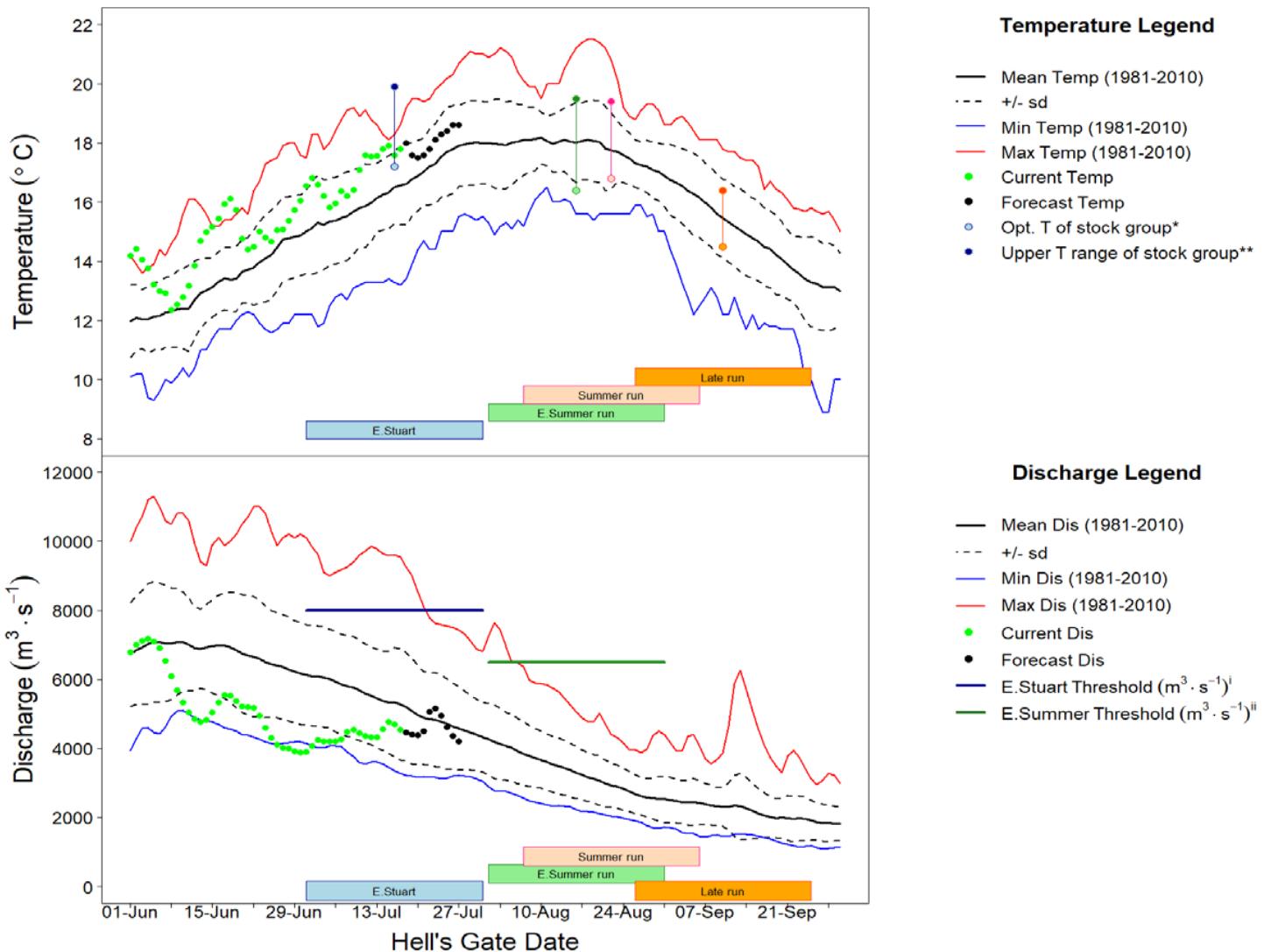
Fraser River Conditions

The main source of information for Temperature and Discharge data and forecasts is DFO's Environmental Watch Program (see link below).

The BC River Forecast Centre website (see links below) has information and links related to discharge and temperatures at various monitoring stations throughout the Fraser watershed, including snow pillow and melt updates.

Environment Canada's Water Office webpage provides access to real time hydrometric data at many locations throughout the Fraser watershed (see links below).

Fraser Discharge and temperatures at Hope and Qualark Creek (near Hope) respectively look like this (graphs from the Fraser River Panel Distribution July 19th, 2019):



The Fraser River water temperature at Hope is currently 18.0 degrees Celsius (1.4 degrees Celsius above average for this time of year), and is forecast to increase to 18.3 degrees Celsius by July 14th. The Fraser River discharge is within the usual annual differences at 4,456 m³/sec at the Qualark water station on July 18th (14% below average for this time of year). The discharge is predicted to continue tracking below average but within the usual annual variation, with a forecast discharge of 4,955 m³/sec by July 14th.

Environmental data and observations are critical in identifying Management Adjustments (MA) in-season. Currently, the flow and temperature data are sitting within the historic range for preseason MA forecasts, we are currently not expecting a major change in MAs compared to preseason forecasts. The panel may announce a change in MAs for each sockeye MU in-season, based on changing environmental conditions or other factors (ie Big Bar slide).

Fraser River Fisheries Information

Fraser First Nations Fisheries information can be found on the DFO website at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/index-eng.html>

DFO staff will be distributing Fraser Salmon Bulletins, and we strongly encourage people to review and comment on the DFO bulletin if time and resources permit. Contact your local DFO Resource Manager for a copy, and addition to the distribution list.

Fraser Sockeye Salmon

The Pacific Salmon Commission (PSC) distributes the Fraser River Panel meeting agenda and technical information for Panel members and observers to the process. The following information is a summary of key information from that document (July 11th, 2019) and the Fraser River Panel meeting from the same day.

Stock Identification

Increased sample size in test fisheries means there are stock ID available for Juan de Fuca test fisheries, 34% Early Stuart and 66% Early Summer the majority of which are part of the Nadina Group (Nadina, Bowron, Gates, Nahatlatch, Taseko).

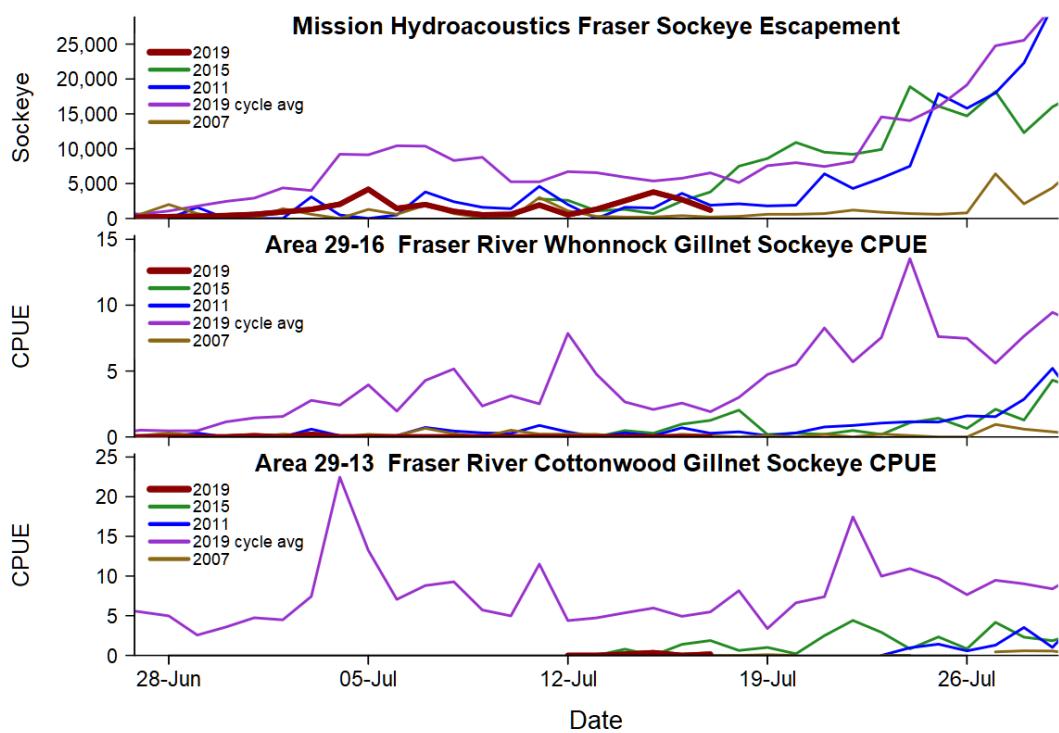
Age composition of sockeye caught in test fisheries shows lower than expected proportions of Age 4 sockeye. This was noted as an anomaly, but considering we are still early in the Fraser sockeye season it was not flagged as an immediate concern. The age composition of sockeye caught in test fisheries will be tracked and reported on throughout the season.

Test Fisheries

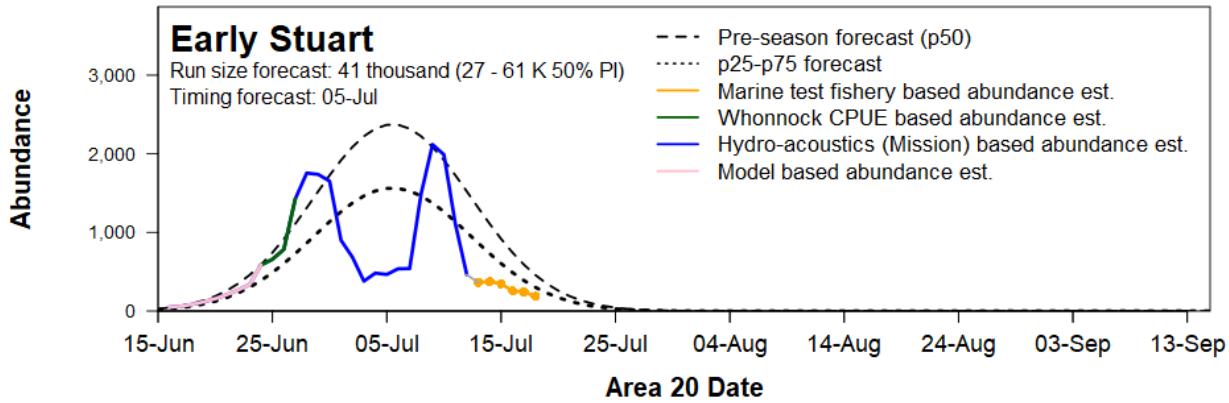
Test fisheries have recently started. Test fishery catch to date has been minimal throughout the approach and in-river test fisheries. Area 4b56c test fishery is proposed to be delayed and discussed further on Monday. Marine approach test fisheries have been proposed to be delayed by one day compared to their planned start date next week. A small group of the Fraser Panel will meet Monday morning to discuss test fishery scheduling.

Predicted abundance in-river over the next week is low (4,900), due to low test fishery catches in marine approach test fisheries.

Test fishing graphs and Mission hydro-acoustics information from the PSC distribution package:



Estimated Abundance and In-Season Timing Compared to Forecast



The next Fraser River Panel meeting is scheduled for 11AM Tuesday July 23rd.

Fraser River Panel Schedule:

Tuesday and Friday 11am.

Canada dial-in: 1-888-299-2873

(USA dial-in: 1-888-585-9008)

Conference ID: 287-053-397

Links

With Chinook and sockeye approaching and in the Fraser, these links may be of interest:

Big Bar Slide Updates: <https://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery/emergency-response-and-recovery/incident-summaries/big-bar-landslide-incident>

BC River Forecast Centre Website: <http://bcrfc.env.gov.bc.ca>

Environment Canada's Water Office Website: http://www.wateroffice.ec.gc.ca/index_e.html

Pacific Salmon Commission Website: www.psc.org

Pacific Salmon Commission Test Fisheries: http://www.psc.org/info_testfishing.htm

Pacific Salmon Commission News and Regulatory announcements: <http://www.psc.org/publications/fraser-panel-in-season-information/fraser-river-panel-regulatory-announcements/>

Fraser River Mission Escapement Reports: <http://www.psc.org/publications/fraser-panel-in-season-information/fish-passage-past-the-psc-hydroacoustic-counting-station-near-mission-bc/>

Fraser River Environmental Watch Reports: <http://www.pac.dfo-mpo.gc.ca/science/habitat/frw-rfo/index-eng.html>

The Albion Test Fishery information can be found at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/docs/commercial/albionchinook-quinnat-eng.html>

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