



# WATERSHED TALK

## NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

*Volume XVI, Issue 3*

### 2019 FRASER SALMON UPDATE

*By: Aidan Fisher, FRAFS Biologist*

To date the news for Fraser sockeye continues to be concerning. The marine test fisheries have not picked up, and in-river test fisheries continue to have low catches. It is still early in the Fraser sockeye run, and if the abundance of fish have a later than forecasted return timing there is still a chance at returns near the forecast. The Fraser Panel is closely watching daily test fishery catches in hopes of some signal of abundance seaward of the test fisheries.

Since last week some purse seine test fisheries have started, and unfortunately confirmed the low catch numbers being reported by the gillnet test fisheries. Using both methods, the low abundance of sockeye is no longer potentially an artifact of sampling via gillnet and likely a true low estimate. A high proportion of age 5 sockeye are being reported in all test fishery catches. The observed proportions of age-4 and age-5 sockeye are not out of the historical observed ranges, but there are many more age-5 fish being identified than forecasted.

The Pacific Salmon Commission (PSC) staff presented some modelled information about earliest potential run timing based on observed abundance in test fisheries and at Mission. By projecting potential run timing dates they are able to provide an earliest estimate of median run timing based on forecast abundance. If the Early Summer MU run is near the p25 forecast, then the observed catches and Mission passage is tracking the p25 return without too much variation. If the Summer run is near the p25 forecast, the fish would have to be a minimum of 7 days late as they are currently tracking below the p25 forecast. The Summer run data is currently showing it is either very low or late. The PSC staff will closely track this information, and present new estimates based on test fishery catch and Mission escapement at each meeting.

The Fraser Panel did not update any in-season run sizes today, instead they will reconvene on Monday to further discuss in-season run sizes. To date DFO has not licenced any sockeye directed fisheries (except test fisheries), including FSC.

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 Run Size	Adopted	Area 20 Timing (for 50% of run)
Early Stuart	41,000	25,900	<b>27,000</b>		<b>July 8</b>
Early Summer	<b>465,000</b>	25,300	N/A (too early for run size update)		Preseason (July 30)
Summer	<b>3,393,000</b>	3,400	N/A (too early for run size update)		Preseason (Aug 10)

Lates	<b>359,000</b>	0	N/A (too early for run size update)	Preseason (Aug 18)
<b>TOTAL</b>	<b>4,795,000</b>	54,600	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

DFO presented fish passage surveying methods on the Fraser Panel call. They are using radio tags and acoustic monitors, above and below the slide site. Acoustic equipment was installed in early July but it had to be pulled out due to high water and flow that would have washed out all the equipment. In mid-July the in-river monitoring equipment was reinstalled. As of July 17 the equipment was providing usable data, but they have not observed any fish passage from radio tags or the acoustic equipment to date.

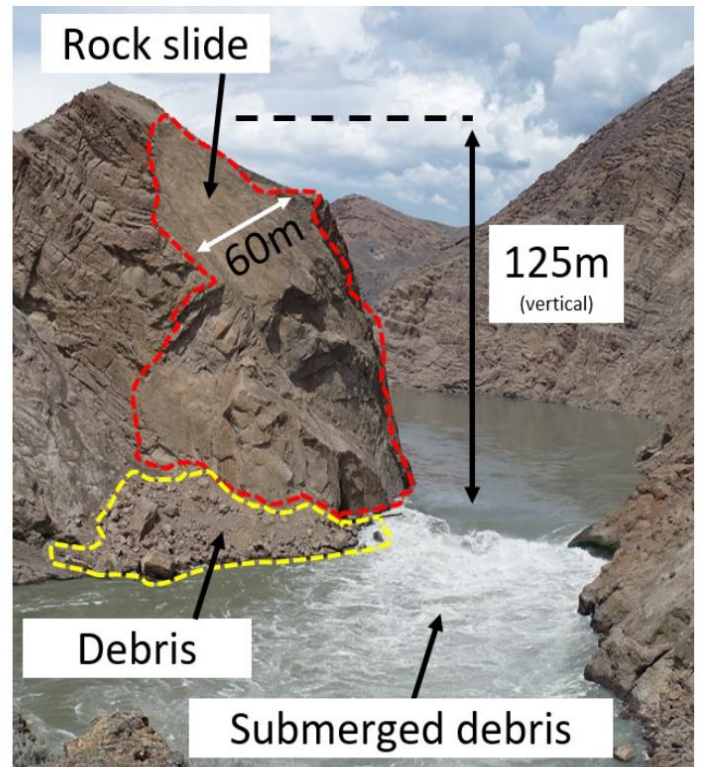
DFO staff have placed over 100 radio tags on chinook below the slide. Some fish with applied radio tags have been helicoptered over the site, in order to track migration. To date a total of 200 sockeye and chinook have been helicoptered over the slide.

The incident command team is working daily on this major issue, and new information is being released daily.

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) <sup>1,2</sup>
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) <sup>1,2</sup>
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) <sup>1</sup>
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) <sup>1</sup>
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	FN's FSC: Open to selective fishing for chinook (dip net, angling and potential for 8" mesh gill net) and open in tris for sockeye and chinook.
Sawmill Cr-Texas Cr	03-Jul	6:00 PM	24-Jul	31-Jul	6:00 PM	FN's FSC: Open to selective fishing for chinook (dip net, angling) and open in tris for sockeye and chinook.
Texas Cr-Kelly Cr	03-Jul	6:00 PM	24-Jul	31-Jul	6:00 PM	FN's FSC: Open to selective fishing for chinook (dip net, angling) and open in tris for sockeye and chinook.
Kelly Cr-Deadman	03-Jul	6:00 PM	24-Jul	31-Jul	6:00 PM	FN's FSC: Open to selective fishing for chinook (dip net and 8" mesh gill net) and open in tris for sockeye and chinook.
Deadman-Chilcotin	09-Jul	6:00 PM	28-Jul	04-Aug	6:00 PM	FN's FSC: Some allowable harvest in terminal areas.
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	
Prince George-Stuart R	11-Jul	6:00 PM	02-Aug	09-Aug	6:00 PM	

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

<sup>2</sup> 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 Final 2019-2020 Southern Salmon IFMP .

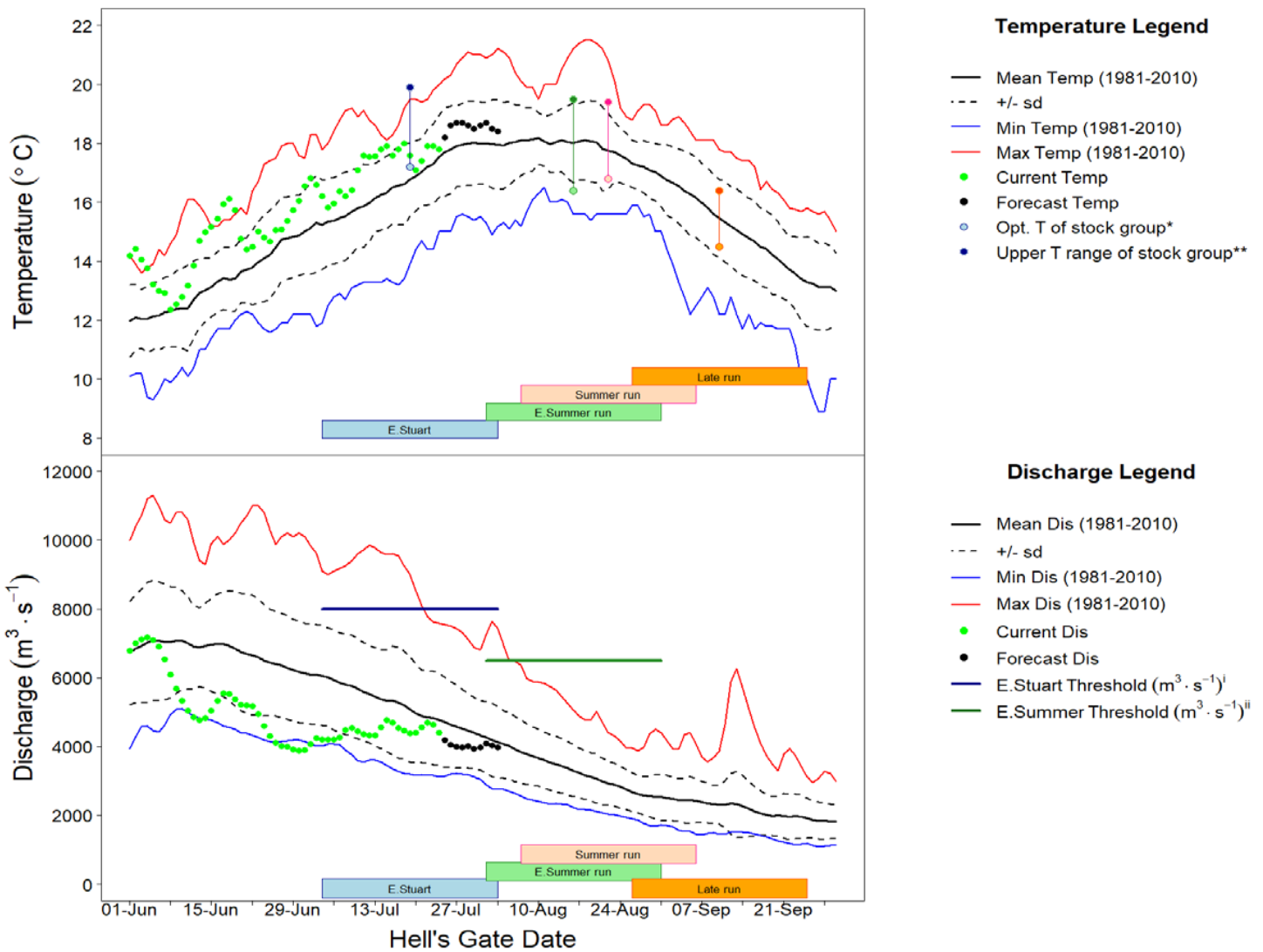
## **Fraser River Conditions**

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 26<sup>th</sup>, 2019):



The Fraser River water temperature at Hope is currently 18.2 degrees Celsius (0.5 degrees Celsius above average for this time of year), and is forecast to increase to 18.6 degrees Celsius by July 31<sup>st</sup>. The Fraser River discharge is within the usual annual differences at 4,200 m<sup>3</sup>/sec at the Qualark water station on July 25<sup>th</sup> (11% 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 3,985 m<sup>3</sup>/sec by July 31<sup>st</sup>.

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 pre-season MA forecasts, we are currently not expecting a major change in MAs compared to pre-season 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 26<sup>th</sup>, 2019) and the Fraser River Panel meeting from the same day.

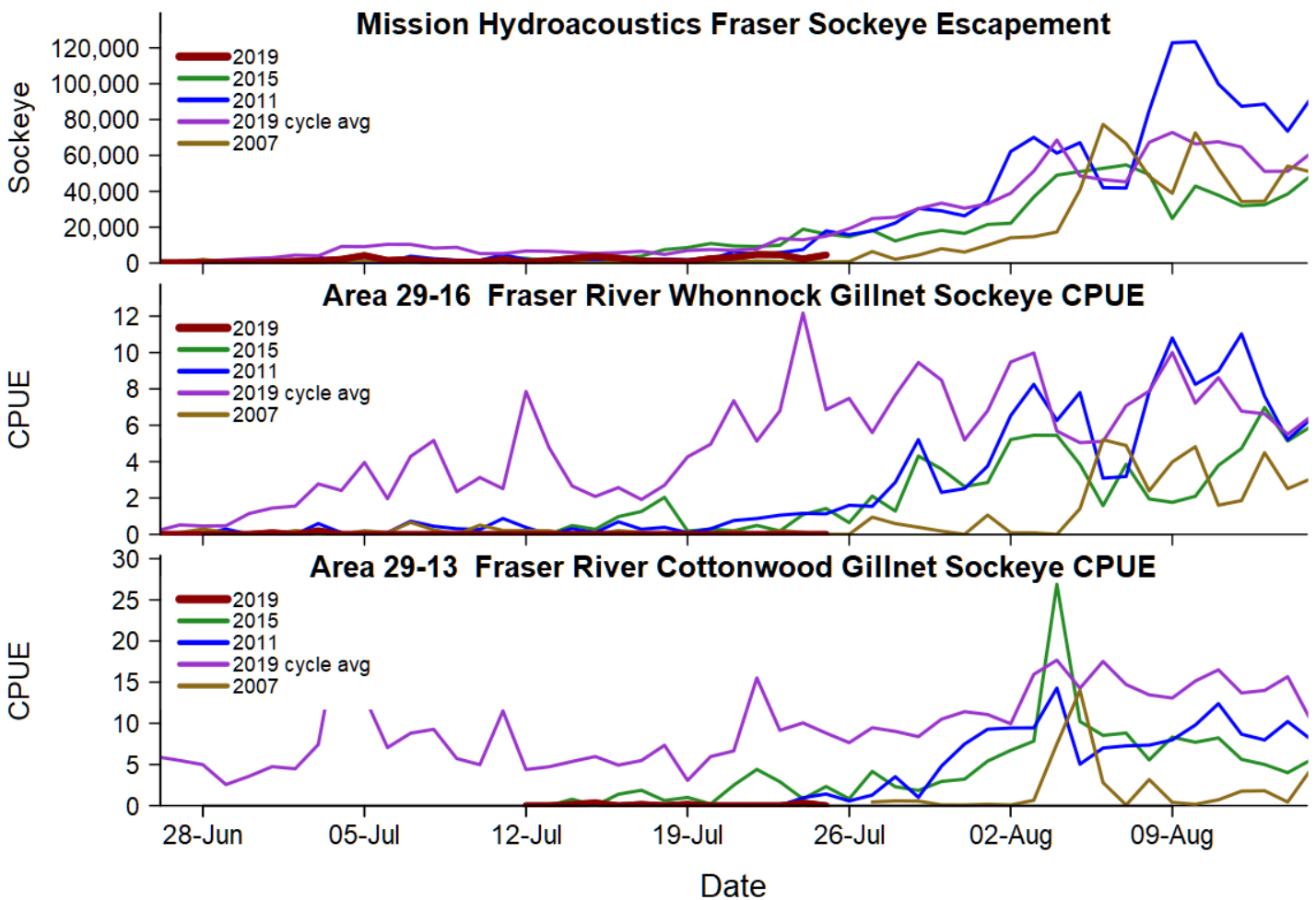
*Stock Identification*

Early Stuarts have begun tailing off in the test fishery catch, with most fish being identified to the Nadina complex of Early Summer sockeye. The Mission hydroacoustic site is tracking near sockeye close to the p25 forecast level.

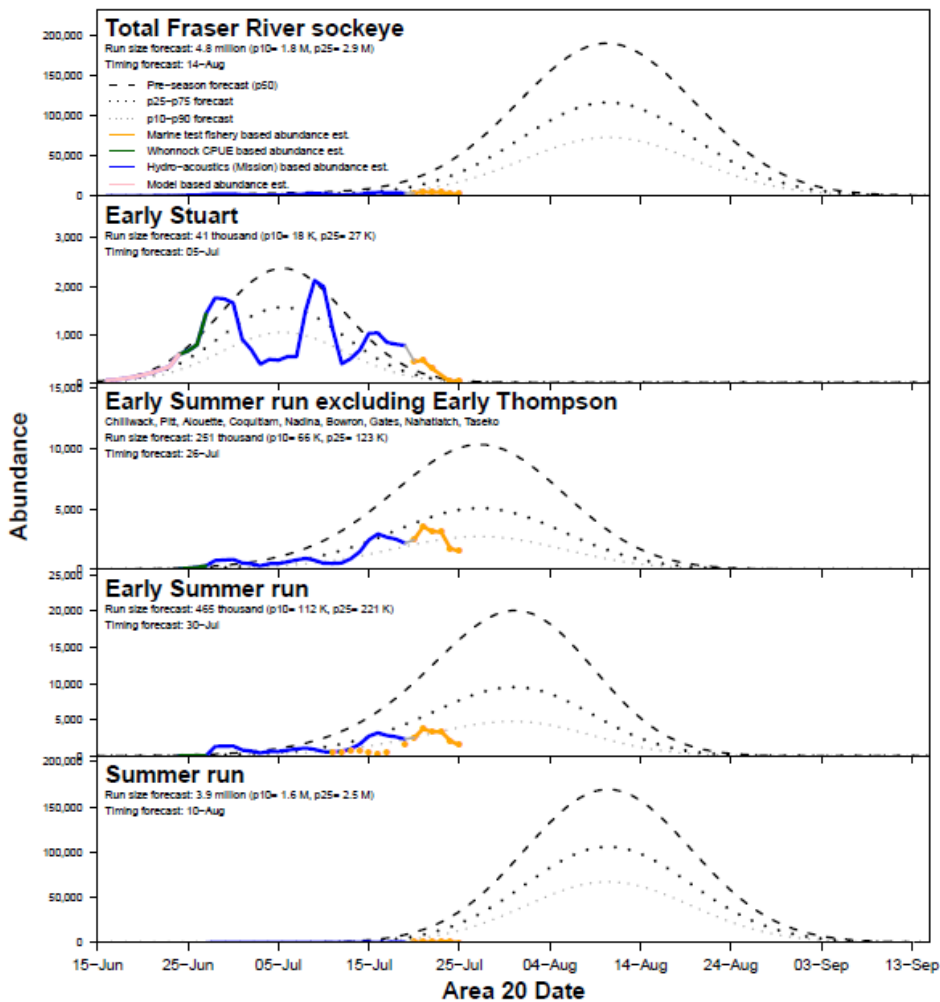
*Test Fisheries*

Extremely low test fishery catches are being observed in all marine test fisheries, indicating low abundance in the marine area. The purse seine test fisheries have started in some areas, corroborating the observations of the gillnet test fisheries catching few sockeye.

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 30<sup>th</sup>.

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

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

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

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](http://www.wateroffice.ec.gc.ca/index_e.html)

Pacific Salmon Commission Website: [www.psc.org](http://www.psc.org)

Pacific Salmon Commission Test Fisheries: [http://www.psc.org/info\\_testfishing.htm](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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