



# WATERSHED TALK

## NEWSLETTER

Produced by the Fraser River Aboriginal Fisheries Secretariat

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### SOCKEYE IN-SEASON UPDATE

By Neil Todd, FRAFS Operations Manager & Mike Staley, FRAFS Biologist

Mike Staley held his first sockeye in-season update conference call for First Nations on Thursday, July 12. The following notes are based on Mike's information from that call, augmented by updated information derived from the Fraser Panel meeting this morning (Friday, July 13).

#### Overview

To summarize from the Thursday (July 12) afternoon call and the Friday (July 13) Fraser Panel information, while there are some indications that both the Early Stuart and the Chilliwack stocks may be returning somewhat higher than the pre-season forecast, there is a great deal of uncertainty around the estimates because of the difficulty in generating sufficient data at this time. The protracted very high Fraser River discharge has prevented the Pacific Salmon Commission from operating its split beam hydro-acoustic facility to date. Data from this facility is required in conjunction with the data from the Whonnock test fishery in order to generate "numbers past Mission" estimates within reasonable bounds of probability.

Compounding the uncertainties caused by lack of hydro-acoustic data to date, estimates derived from the Area 20 test fishery are showing significantly fewer fish than the corresponding estimates derived from the Whonnock test fishery. For example, a six day time period for Area 20 suggests a total of 29,000 fish; but the corresponding time period for Whonnock (taking into account travel time for the fish to get there) suggests a total of 168,000 fish.

Some very limited information just becoming available from a DIDSON unit at Mission, plus one at Qualark that is now operational, suggests that the estimates of fish numbers from Whonnock may be a little closer to reality than the estimates from the Area 20 information.

Without trying to relate the statistical analysis contortions based on the current problematic information, the PSC is recommending today:

- Early Stuart: in-season run size estimate of 120,000;
- No in-season run size estimate for Chilliwack at this time (the other stock making up the majority of sockeye currently migrating through the lower Fraser). However, the PSC feels comfortable – based on current knowledge and the limited data available – that Chilliwack sockeye are returning at pre-season forecast levels at least.

#### Management Adjustment

Protracted very high river discharges are impeding Early Stuart and Early Summer Run migration. Discharge is 8,389 cms (cubic meters per second). This is still above 8,000 cms, meaning few sockeye are making it up through the Fraser Canyon and stress levels are very high on all fish trying to migrate upstream at this time. Temperatures are near normal for this time of year and these flows. A July 11 temperature of 15.9°C was about 0.4°C above the historical average.

Under the current conditions, the Management Adjustment (based on the best estimate of Area 20 peak

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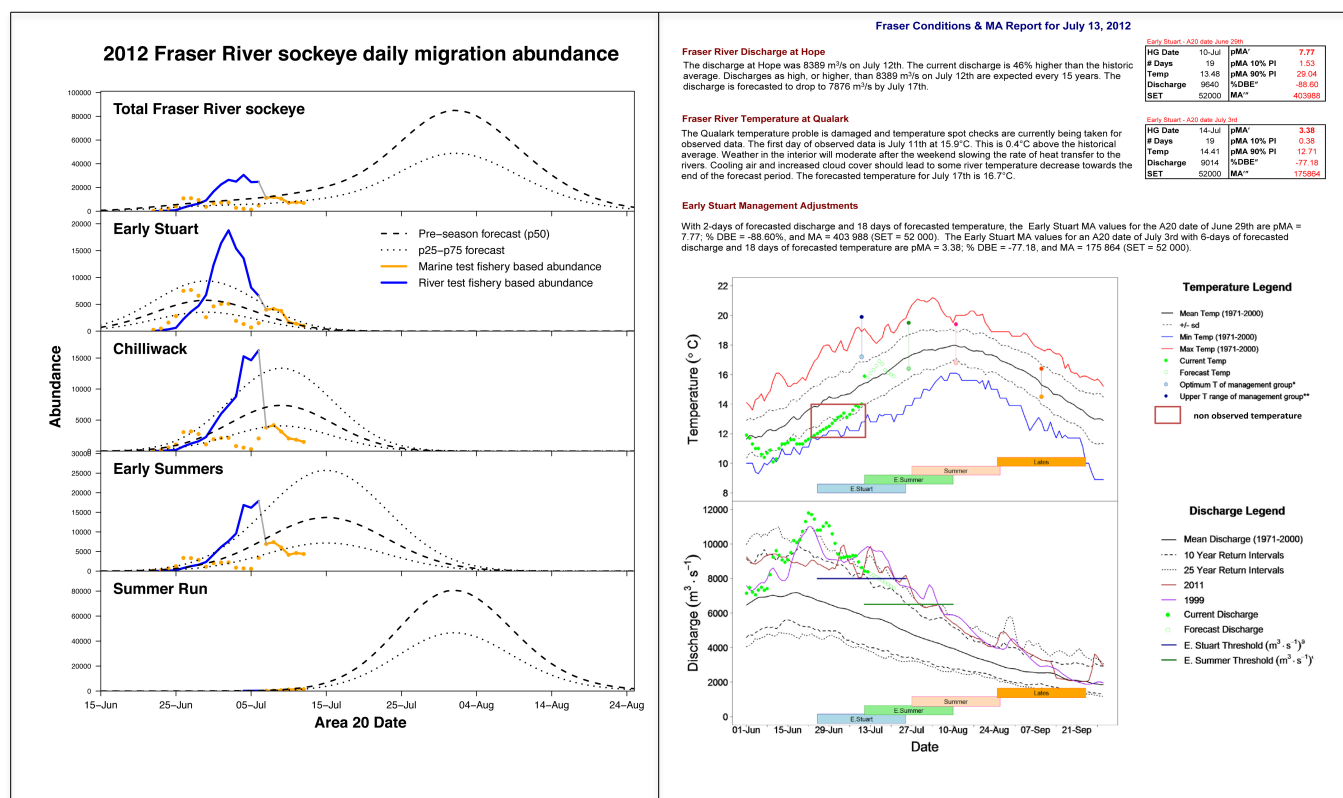


migration timing of July 3) is 175,864 fish (pMA = 3.38), meaning that in order to put 52,000 Early Stuart sockeye on the spawning grounds, the run size has to be (175,864 + 52,000 =) 227,864 fish. There is no reliable indication at this time that Early Stuart sockeye are returning in those numbers.

## Conclusion

Based on the very limited information to date, plus the known volume of flows in the Fraser River, the outlook

for Early Stuart at this time is not good despite the potential for somewhat higher returns than the pre-season forecast. Flow conditions are similar to last year (2011) when fewer than 1,000 fish made it back to spawn, out of an estimated run size of 30,000. Similarly, the earliest timed stocks of the Early Summer Run aggregate (Nadina, Bowron) are almost inevitably going to be experiencing higher than normal levels of mortality between Mission and the spawning grounds unless river conditions improve significantly very quickly.



## PSC Fraser Panel Listen-in Line for First Nations:

First Nations are welcome to dial in to Fraser Panel calls (observer status only). Calls are normally scheduled on Tuesday and Friday mornings at 11am. Dial-in information and meeting distribution material are sent out via the First Nations Fisheries Council email distribution list prior to the calls.

## In-season Technical Update Conference Calls with FRAFS Biologist Mike Staley:

These calls are open to all First Nations, and are held on Thursday afternoons at 4:00pm unless otherwise posted. Dial in: 1-866-512-0904, Passcode: 4954972#