## BIG BAR LANDSLIDE UPDATE AUGUST 14 2020

BC River Forecast

Response Webpage

## FISH ATTAINING NATURAL IN-RIVER PASSAGE



**TOP:** Fish using the "nature-like" fishway, completed in April 2020, to move past the barrier.

Over the last week, increasing numbers of salmon have successfully passed the slide site without assistance. As water levels along the Fraser River continue to drop, conditions are improving for natural fish passage. This year, salmon are able to pass the slide site at much higher river volumes compared to 2019, which is the direct result of the successful rock removal and building of the "nature-like" fishway this spring.

As of August 12, approximately 38,761 salmon have moved past the barrier. Preliminary data from the Churn Creek sonar station indicates that the majority of these fish are chinook but sockeye are gaining ground and now represent about 20 per cent. Further analysis is underway to determine the river volumes at which fish can pass naturally.

At this time, 5,568 and 1,527 salmon have been moved past the slide using the Whooshh Passage Portal<sup>™</sup> and 'truck and transport' respectively.

These alternative transport systems will remain in operation until lower water allows full natural passage for all species.









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#### **ONGOING ONSITE OPERATIONS**

With all systems working together to support fish passage, crews focused on modifications to the Whooshh Passage Portal<sup>™</sup>, including:

- building roofs for the air cooler system;
- constructing an access platform decking so workers can easily reach all parts of the system;
- lowering the discharge tubes into the Fraser River to accommodate the dropping water levels; and
- installing a barricade to safeguard fish from escaping the steep pass.

To improve fish transport truck access to the fish wheel operation site, crews completed a road and ramp down to the beach where salmon from the fish wheel are transferred to the tanks.



**PICTURED:** Construction of a road down to the Fraser River to allow DFO to safely access the boat transporting fish.

### **ENHANCEMENT PROGRAM UPDATE**

Gitksan, Sta't'imc, Secwpemc and Sylx First Nation crews continued to lead <u>fish wheel</u> operations onsite. They focused on capturing salmon for radio tag application, emergency enhancement collection and transportation to French Bar Creek for release.

The First Nation crews have transported more than 1,500 salmon over the slide, capturing approximately 90 per cent of Early timed chinook and Early Stuart sockeye needed for the enhancement program. As of this week, the program reached its target of collecting and transporting 400 sockeye to the Cultus Lake Laboratory to support the Early Stuart River Sockeye Emergency Conservation program.

With an increasing number of fish attaining natural passage, and to reduce further stress from handling, fish wheel operations for transport have been suspended for the moment, except for the collection of chinook for the emergency conservation enhancement program.

The commitment of the First Nations from the onset of the emergency response, demonstrated through their responsiveness and collaboration during the operations at Big Bar, continues to move us closer towards the common goal of ensuring salmon make it home to spawn.

**UPDATE CONTINUES ON PAGE 3** 



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**PICTURED:** Panoramic view of the Big Bar landslide site.

#### SOCKEYE SALMON – BIG BAR'S NEWEST RESIDENTS

Known for their bright red hue, Fraser sockeye salmon are now arriving at the Big Bar landslide site in large numbers. Similar to their chinook cousins, this year's sockeye are currently en route to their natal streams to begin spawning. Divided into four main groups based on their migration timing, the Early Stuart, Early Summer, Summer and Late, this species spawns between mid-August and late-October.

Fraser sockeye generally reach maturity and commence their migration home at four years of age. After spending their first winter imbedded in gravel as eggs, the newly hatched juveniles migrate to nearby lakes to feed. Following a year in freshwater, they then return to the ocean where they spend two to three years in the north Pacific. Now weighing between 2.5 and 7 kg and measuring 55 and 60 cm in length, the sockeye begin their migration back to their natal streams. Like all Pacific salmon, sockeye spawn once and then die soon afterward.

In their abundant populations, sockeye salmon play a vital role in the ecosystems within the entire north Pacific. Fraser sockeye provide a valuable source of energy and nutrients to the river ecosystem in British Columbia upon their death. Restoring fish passage at Big Bar in partnership with our First Nations, provincial and community partners is one key step in protecting this critically important species.

	SALMON RADIO TAGGED BELOW BIG BAR LANDSLIDE	SALMON USING ALTERNATIVE FISH PASSAGE		
		WHOOSHH PASSAGE PORTAL <sup>™</sup>	TRUCK AND TRANSPORT	OF BIG BAR LANDSLIDE
TOTAL TO DATE	449	5568	1527	38761

#### **BIG BAR SALMON COUNTS**

Daily updated counts online





Canada