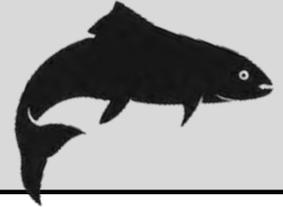


# BIG BAR LANDSLIDE UPDATE

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## FIRST NATIONS AND FISHERIES AND OCEANS CANADA RELEASE 101,000 CHINOOK FRY FROM 2020 BIG BAR BROOD STOCK



**PICTURED:** On May 10, 2021, Greg Witzky, Operations Manager with the Fraser Salmon Management Council and a representative of the Big Bar Joint Executive Steering Committee, participated in the release of 13,600 Chinook fry into Morkill River. Councilor Tina Donald and her daughter, Tiffany Bowser, from Simpcw First Nation, as well as DFO and QRRC staff, participated in a traditional tobacco offering and a Secwepemc prayer to send the Chinook fry on their journey.

Through April and May 2021, First Nations partners and Fisheries and Oceans Canada (DFO) staff released more than 101,000 Chinook fry into 12 different streams in the Upper Fraser Watershed as part of the Big Bar Emergency Conservation Enhancement Program. The fry were reared from gametes (eggs and milt) that were collected in 2020 from adult salmon captured both at the landslide site and in their natal streams.

The releases are a critical step towards supporting the long-term survival of vulnerable salmon stocks; they represent a significant success for the enhancement program in response to the Big Bar landslide.

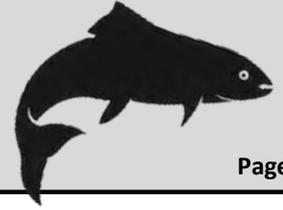
Planning for the releases began in 2020 and included collaboration with First Nations technical experts from the Upper Fraser and with the Upper Fraser Fisheries Conservation Alliance. First Nation partners remain integral to the success of the enhancement program. Local knowledge provides guidance to the Big Bar response team, identifying, for example, when and where to collect brood stock and where to release fry.

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First Nations and DFO fisheries technicians collected adult Chinook from the Fraser River below the slide site and in the Upper Fraser in 2020 through fish wheel operations. The adults were transported to the Nechako White Sturgeon Conservation Centre in Vanderhoof where they were held until maturity. Eggs and milt were collected and then transferred to the Quesnel River Research Centre (QRRC) for fertilization and incubation to the 'eyed' stage. In early fall 2020, some of the eyed eggs were relocated to the Spius Creek and Chehalis River hatcheries, while others remained at QRRC. The fish have since been reared at each of the three facilities.



**PICTURED:** A fisheries representative for the Lhtako Dene Nation attended the first of 12 releases on April 13, 2021, with the return of 9,900 Chinook fry into the Cottonwood River.

The resulting fry were released this spring into streams, creeks and rivers across the Upper Fraser using trucks and a helicopter. Due to rising spring flows and currents, care was taken to release the fry at optimal times and locations. These locations will be quickly imprinted on the fry; they will then spend the next 11 to 12 months in various freshwater habitats. Next year, in late April and early May, the juvenile salmon will enter the Fraser River estuary as yearling Chinook smolts. After another two to four years spent in the ocean, the salmon will return to the Fraser River and migrate back to their natal streams to spawn, thus completing the cycle of life.



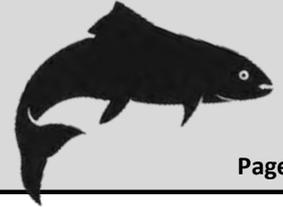
**PICTURED:** On April 27, 2021, Chief Leah Stump and members of the Nazko First Nation performed a blessing ceremony before the release of 15,300 Chinook fry into the Blackwater River.

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**PICTURED:** On May 4, 12,600 Chinook fry were released into the McGregor River via helicopter: one of four releases by air due to the remote stream locations.

The Big Bar emergency enhancement efforts are equally important for First Nations communities who rely on the health of these runs for food security as well as social and ceremonial needs. In recognition of the cultural significance of salmon, members of the Nak'azdli Whut'en, Lhtako Dene Nation, Simpcw First Nation, Tsilhqot'in Nation and Nazko First Nation participated in these events. They witnessed several releases and performed blessing ceremonies for the survival and safe return of the salmon to their natal spawning grounds.

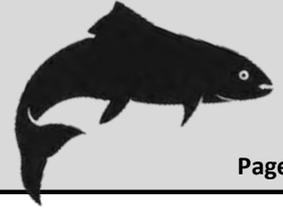
Planning is currently underway for the 2021 enhancement program for Chinook and sockeye as part of the Big Bar landslide response.

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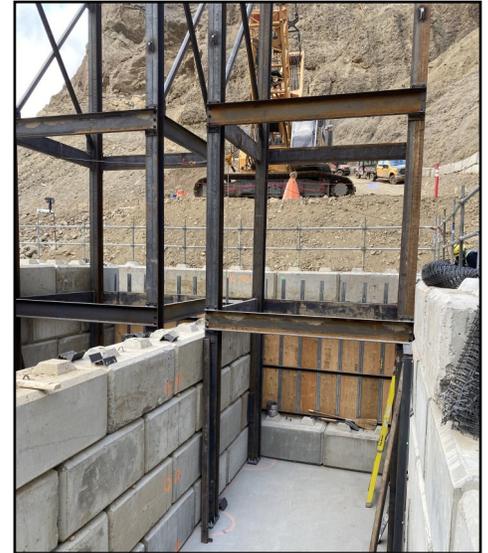


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## PREPARATIONS FOR SUMMER OPERATIONS ENTER FINAL STAGES



**LEFT:** An aerial view of the fish ladder and the crane used to install the steel infrastructure and water supply lines.

**RIGHT:** A close-up of the steel hopper structure in the fish ladder; at rear, wooden diffuser panels can be adjusted to control the flow of water pumped in from the river.

Crews are heading into the final stretch, preparing for summer operations at Big Bar as rising water levels along the Fraser River signal the start of Fraser salmon migration.

At West Beach, generators for the concrete fish ladder are being installed. Pumps to supply water to the ladder are positioned in the Fraser River and the supply lines are connected. Crews have installed diffuser panels, which will help control the flow of water entering the ladder from the river. Metal work for the ladder is also on track with the fabrication and installation of aluminum walkways and handrails.

To ensure worker safety, rock stabilization is ongoing with the installation of protective steel mesh, rock bolting and ongoing rock scaling on the south face.

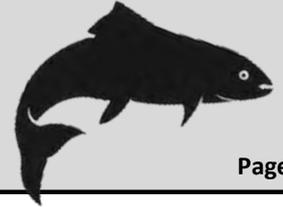
Finally, work at other locations is also progressing. The Chinook Main road upgrade between the slide site and French Bar Creek is nearly complete while work on the crew camp at KM96 is being finalized.

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**PICTURED:** Pumps for the concrete fish ladder being placed in the river by crane.

