


# BIG BAR LANDSLIDE UPDATE

February 7, 2022



 Response Webpage

 BC River Forecast

## PONDING OF CHINOOK AND SOCKEYE FRY BEGINS FOR ENHANCEMENT PROGRAM

As work to identify a long-term solution for fish passage at Big Bar progresses, the response team is focused on planning for 2022 operations, including the enhancement of salmon stocks impacted by the slide.

The emerging Chinook and sockeye alevins (i.e., a newly hatched salmon egg) from the 2021 enhancement program are maturing into fry, and are being transferred to larger rearing containers (“ponded”) at various hatcheries. These facilities, located throughout B.C., have supported Big Bar enhancement since 2019 and are operated by First Nations, community partners and DFO.

Last week, DFO technicians began sampling some of the newly ponded fry. Sampling is required throughout the rearing period to monitor fish growth and health, and it allows technicians to adjust feeding and care routines accordingly. The most common methods of sampling are by bulk weights or length-weights.

- A bulk weight is determined by weighing between 100 and 200 fish and then calculating the average weight.
- Length-weights are calculated by measuring individual fish length and weight for a range of sizes and then obtaining the average.



*PICTURED: (left) Newly ponded sockeye fry at DFO's Inch Creek Hatchery (right) Close-up of sockeye fry being sampled for bulk weight*

The enhancement program's multi-disciplinary team is planning both the release of these fry this spring and fall, and the collection of broodstock during this year's migration season.

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## PROJECT STUDIES IMPACT OF LANDSLIDES ON WATER FLOW DYNAMICS, FISH MIGRATION AND FRASER RIVER SALMON GENETICS

Even before the discovery of the Big Bar landslide in June 2019, there was an interest in identifying natural hazards along the Fraser River with the intent of preventing or preparing for landslides.

A team at Simon Fraser University's (SFU) Department of Geography, with support from the [British Columbia Salmon Restoration and Innovation Fund program \(BCSRIF\)](#), is mapping the locations of past landslides in the Fraser Canyon and identifying sites of potential future impacts that require further geotechnical assessment. This work will be conducted using a combination of hydrographic surveys, LiDAR mapping and surface exposure dating. The results will provide a better understanding of how changes in river channel morphology (i.e., landslides, rockslides, etc.) have affected Fraser salmon in the past, how the Big Bar landslide is presently affecting salmon, and how future landslides may affect fish migration.

Engagement with Indigenous communities along the Fraser River canyon will be critical to the research process, since they possess traditional knowledge of historical landslides and fish migrations.

The three-year project, which began in April 2021, is being conducted in partnership with the Hakai Institute (Tula Foundation), SFU's River Dynamics Laboratory, the Fraser Basin Council, the Fraser Salmon Management Council and DFO. [Click here](#) for more background on this BCSRIF project, which is jointly funded by the Government of Canada and the Province of British Columbia.

