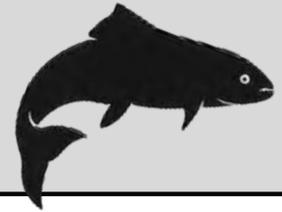


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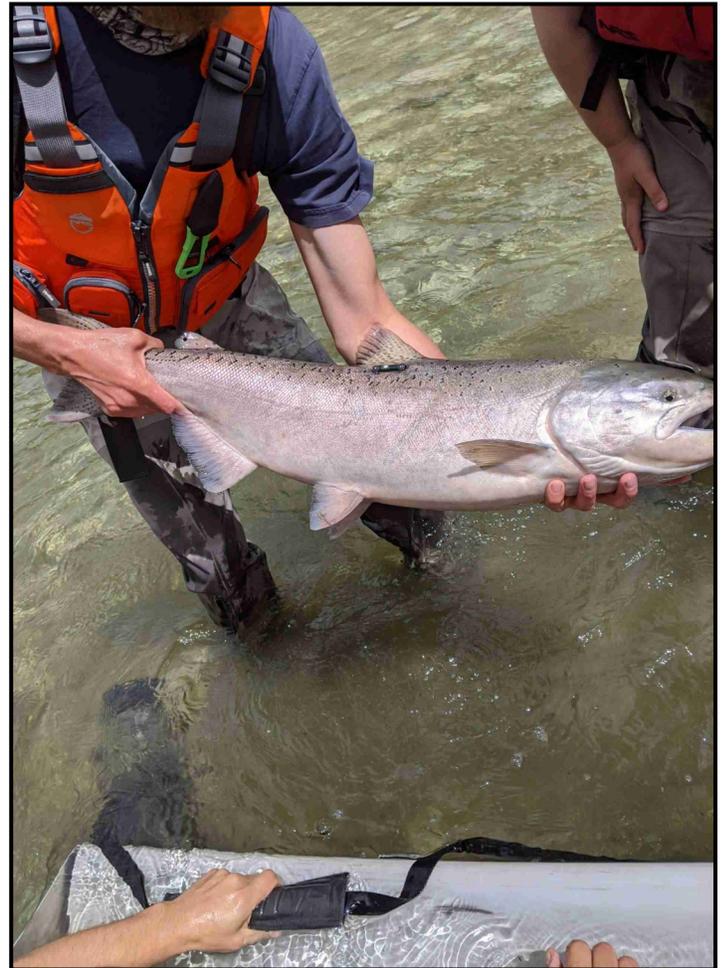
## ONGOING ONSITE OPERATIONS

Despite some disruption due to heavy rain and hail, Peter Kiewit Sons ULC remained focused on the installation of the Whooshh Passage Portal™ components. Working with a helicopter and long line, repelling crews manoeuvred the 12 m-long, 1,500 kg termination hanger into place and anchored it to the canyon wall. The remaining components were then fitted to this remote hanger. Kiewit continues to install the tension anchors and remaining hanger braces for the Whooshh™ tubes. The tube suspension cables are now being run from the Whooshh platform to the hanger braces.

### FISH MONITORING

This past week, water levels in tributaries subsided sufficiently to allow the monitoring team to more easily access fish capture sites. As water turbidity dropped, the team successfully [radio tagged](#) the first fish on June 8, near Lytton, where the Stein River meets the Fraser.

A sonar, successfully installed downstream of the Big Bar ferry, recorded approximately 30 fish moving upstream. As water conditions improve, the monitoring team is continuing its efforts to understand fish migration and movement, health and run size, in near real time as they approach the slide site.



**TOP:** On June 8, the first chinook was successfully radio tagged near Lytton.

### SWIFTWATER RESCUE TRAINING

From May 27 to 29, members of the High Bar, Stswecem'c Xgat'tem and St'at'imc First Nations attended a Swiftwater Rescue Technician training session. With much of the Big Bar work occurring close to the river's edge, these certified technicians play a critical role in ensuring the safety of the workers onsite.

Over three days, participants developed essential rescue and response skills for use in and around swift moving currents and deep water. They focused on emergency response, rapid risk assessment, rescuing others and self-rescue.

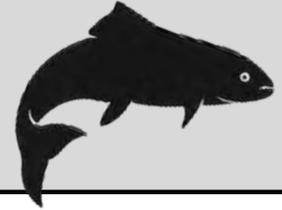
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## STOCK PRIORITIZATION DISCUSSIONS WITH UPPER FRASER FIRST NATIONS



**TOP:** Progress continues on the Whooshh Passage Portal™ installation  
**BOTTOM:** Crews installed the termination support hanger (centre-right) this week using a helicopter

On June 3, DFO met with technical representatives from the Upper Fraser First Nations to resume discussions on prioritizing stocks impacted by the landslide for emergency enhancement efforts. The meeting focused on identifying the species and stocks to be collected at the slide site as opposed to collection at their natal streams.

The group agreed on an approach to capture Early Stuart sockeye and four Early Spring chinook stocks at the slide site. The decisions were based on the anticipated abundance and the ability to genetically match the stocks. However, further discussion is required on the stocks for natal stream collection.

**UPDATE CONTINUES ON PAGE 3**

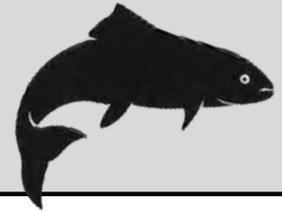


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## TRANSPORTING FISH BY TRUCK

While the transport of fish by truck is a common practice, studies show it is best employed early in the migration when fish are in better condition and their capture causes less stress.

‘Truck and transport’ is one in a series of planned mitigation measures to support fish passage at the Big Bar landslide in 2020. The [“nature-like” fishway](#) and the Whooshh Passage Portal™ remain the primary methods to move fish over the slide site. Transport by truck will be used until the Whooshh™ is operational or if there are gaps in its operation.

Fish will be collected from the holding pool at the top of the concrete fish ladder. DFO teams and First Nations fisheries technicians will transfer the salmon to specially designed 2,700-litre tanks fixed to flat-bed trucks. Up to four trucks can operate at a time, and each truck can carry about 35 chinook or 70 sockeye for the 4.5 km trip to the French Bar Creek release site.

Once at French Bar Creek, most chinook will be released into the Fraser to continue their migration. Based on their conservation status and identification through genetic testing, targeted high priority



**PICTURED:** When needed, salmon will be transported in specially designed 2,700-litre tanks fitted to flat-bed trucks

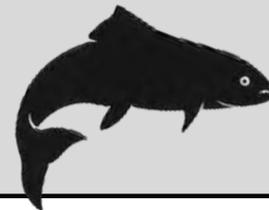
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## TRANSPORTING FISH BY TRUCK



**PICTURED:** A panorama of the Big Bar landslide site

chinook will then be transported to off-site hatcheries in Vanderhoof and the Lower Mainland. Selected Early Stuart sockeye will be moved to a DFO research facility at Cultus Lake. The same, specially designed holding tanks will move the chinook and sockeye destined for hatchery enhancement. At the hatcheries, the salmon will act as broodstock, providing eggs and milt for fertilization.

In 2019, there was no road access at the slide site so transporting salmon by truck was not an option. Instead, helicopters were used as that was the only efficient method available.

Careful transportation has a strong impact on fish survival. To minimize stress, DFO utilizes industry-standard best practices, such as:

- using the concrete fish ladder to encourage natural fish movement into the holding pool;
- employing knotless web for nets to reduce handling and injury;
- minimizing the period of confinement in water tanks; and,
- managing the oxygen levels in the water holding the salmon.

Ongoing monitoring efforts throughout the migration season will help determine the effectiveness of 'truck and transport', by tracking the return of fish to their natal streams.