BIG BAR LANDSLIDE UPDATE

DECEMBER 11, 2020







PERMANENT FISHWAY TO BE BUILT TO SUPPORT FISH PASSAGE

The Big Bar Landslide Response team marked a major milestone this week. On December 9, Fisheries and Oceans Canada (DFO) announced the award of a \$176.3 million contract to Peter Kiewit Sons ULC Burnaby B.C. (Kiewit) to design and construct a permanent fishway at the slide site. Work on the new fishway begins this winter, and it is expected to be operational by the start of the 2022 Fraser salmon migration. The news release can be viewed here.

Despite incredible efforts in 2020, including blasting, river widening, construction of a "nature-like" fishway, as well as the use of alternate fish passage systems, more work is needed. An analysis completed in July 2020 determined that a permanent fishway is the only certain and reliable solution to restoring permanent fish passage at Big Bar.

The slide site is remote and unpredictable, with challenges posed by extreme weather conditions and natural hazards. In 2020, record-breaking water levels in the Fraser River posed unforeseen challenges to the remediation efforts.

Beginning construction of the fishway in winter 2020 is essential to protecting Pacific salmon stocks, which are a national good and hold ecological, economic, and cultural significance to First Nations and all Canadians. Completion of the fishway prior to the 2022 Fraser salmon migration season will improve the survival of



ABOVE: View from below the razorback after demobilization of the fish transport equipment from the summer.

early migrating salmon stocks, which are particularly vulnerable and are threatened with extirpation.

Considering these factors, Kiewit is best positioned to lead this work.

Until this permanent solution is in place, DFO will continue emergency conservation enhancement efforts for at-risk upper Fraser salmon stocks, in collaboration with Indigenous groups, academics and other experts.

UPDATE CONTINUES ON PAGE 2

NOTE: In light of the upcoming holiday season, the next issue of the Information Bulletin will be on January 8, 2021. Happy holidays from the Big Bar Landslide Response team!





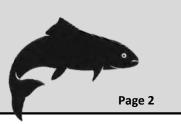


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PROGRESS UPDATE FOR FIRST NATIONS LEADERSHIP PANEL

On December 7, Indigenous, Provincial and Federal representatives from the Big Bar Landslide Response Joint Executive Steering Committee, met with the First Nations Leadership Panel (FNLP) to provide a comprehensive update regarding the permanent fishway.

The FNLP were briefed on the various stages involved in advancing the fishway construction, as well as plans for fish passage mitigation measures, emergency conservation enhancement efforts, and monitoring activities for the 2021 Fraser salmon migration season.

UPCOMING 2020/21 WINTER WORK





LEFT: Heavy equipment in Lillooet awaiting transport to KM96. RIGHT: Tension on the brow mesh anchor pins is being tested.

Following a successful demobilization effort of summer equipment at the site, Kiewit is now gearing up for an extensive winter work period. The focus will be on the following areas:

- 1. constructing the foundation for the pre-cast permanent fishway; and
- 2. ensuring worksite safety, including scaling and mesh installation on the rock face above the fishway site.

UPDATE CONTINUES ON PAGE 3





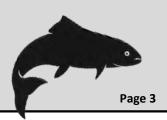


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UPCOMING 2020/21 WINTER WORK (cont'd)

DFO is currently working with Kiewit to proactively identify and balance long-term construction activities with the seasonal fish passage requirements. Ensuring fish passage systems are in place before the 2021 migration season is a key consideration. Plans are also underway to enhance the worksite to support DFO's summer 2021 trap-and-transport activities; the site elevation will be raised to handle 1-in-100-year flood levels.

The Province of British Columbia is significantly involved in the design and implementation of improvements to the road that runs from the West Beach to French Bar Creek. This area will be reinforced with rock and a sand bar to support the 'truck and transport' of fish as Indigenous and DFO crews work in partnership to release fish back into the Fraser River. The Province is also providing the appropriate authorizations for instream work, archaeological assessments and crown land occupation.

To house the considerable work force required to maintain the steady pace of progress on this project, Kiewit will establish a camp in the vicinity. This camp will not only minimize the impact on the environment, it will minimize potential risks posed by COVID-19.

Archaeological and environmental monitoring will continue as a top priority throughout the construction of the fishway and summer operations. The project team will work with archeologists and the local Indigenous communities to ensure that cultural artifacts are appropriately identified, respected and conserved.

2020 BIG BAR QUICK FACTS

- Over 161,000 salmon were recorded migrating past the Big Bar landslide site during the 2020 migration season.
- Nearly 8,200 salmon were moved by the Whooshh Passage Portal™.
- Indigenous crews transported more than 1,500 salmon over the slide site during fish wheel operations.
- The fish wheel operations captured about 90 per cent of the early arriving chinook and Early Stuart sockeye to support the Emergency Conservation Enhancement Program.
- In summer 2020, approximately 20,000 Early Stuart sockeye fry from the 2019 enhancement program were released.
- Currently 120,000 Early Stuart and 12,000 Bowron sockeye, and 99,000 juvenile Chinook are being reared at various hatcheries for release in 2021.



