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Information Bulletin: Water Flow at Big Bar Landslide

Water flow management is critical to the success of salmon being able to navigate past the Big Bar Landslide. Without correct water conditions, it can be difficult or impossible for the migrating fish to travel past the obstruction zone.

If the water flow is too fast, salmon will not be able to move upriver since the current would be too strong. If the flow is too slow, it will leave shallow pools which the salmon would then be unable to leap out of. What is needed is water movement that is neither too slow nor too fast, but just right. At the slide site, water flow is 2,900 m³/s (cubic metres per second) at various times which is currently presenting a significant obstacle for fish passage.

There are many tools at Incident Command's disposal to manage water flow. Large rock manipulation has been critical to the success of this project. Altering the rock landscape by removing, moving, or adding rock to the site can change water flow and velocity patterns to better allow fish movement.

Another tool is managing water flows from regulated tributaries upstream, including the Nechako River. Ongoing summer releases by Rio Tinto Alcan, from the Nechako River system, allows the cooling of water to help salmon; however, due to this emergency situation, the Province had ordered that flows be reduced to assist in operations at the slide while still meeting temperature requirements.

The Province is committed to working with Rio Tinto Alcan to ensure that releases from the facility balance the needs at the Big Bar Landslide and the resident fish in the Nechako, including the endangered sturgeon population.

Altered flow releases from the dam have assisted efforts at the Big Bar Landslide by providing stable water flows at the site; however, as of August 8, 2019, based on temperatures in the Nechako river predicted by Rio Tinto modelling, Rio Tinto Alcan was asked by the Province to release water to provide cooling and to immediately revert back to maintaining regular flows as per its summer temperature management program. Rio Tinto Alcan has accommodated this request.

Contact Information

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Incident Webpage



BC River Forecast

Prepared: August 9, 2019