

SKOOKUMCHUCK DAM Q & A

Based on March 9, 2022 public meeting by the Office of Chehalis Basin

Flooding

Q: Office of Chehalis Basin consultants described the Skookumchuck Dam flood protection as “minimal”. How can I get documentation that supports this statement?

A: The initial analysis of the Skookumchuck Dam completed in September 2021 is publicly available on the Department of Ecology’s website. It describes the work that led to the initial assessment of the flood reduction capabilities of the dam. You can contact Nat Kale directly if you’d like more detailed information than the report provides.

Q: The dam was built to provide water to the Centralia coal plant, but was there any initial intention when the dam was built for it to also hold back flood waters?

A: No, the dam was never intended to hold back flood water. It was designed and constructed to provide a steady flow of water downstream, and it has been operated only for that purpose since it was constructed.

Water Rights

Q: Who owns the dam, and who owns the water rights associated with the dam?

A: TransAlta owns the Skookumchuck Dam. TransAlta also owns the water rights associated with the dam.

Q: Aren’t most water banks run by the state? Why is Trans Alta in charge of this one?

A: No, most water banks are not run by the state. Like this one, they are almost all run under agreements between the water bank operators and Ecology.

Q: How will the water bank actually work?

A: TransAlta is the water bank operator that sells mitigation to new users. Ecology holds the mitigating right(s) in trust. The buyers of the mitigation apply to Ecology to obtain new mitigated water right permits. This water bank became operational in August of 2021.

Q: Is there an established minimum instream flow on the Skookumchuck?

A: Yes, instream flows were set for the Skookumchuck River with the adoption of WAC 173-522 in March 1976. The TransAlta water rights are senior to the instream flows, with a priority date of November 28, 1966. Although there are no plans or expectations for the state to increase the instream flows, doing so would have no effect on the TransAlta rights.

Q: When Trans Alta sells water rights, do they have to sell them in order of request like typical water rights? Or can they pick and choose who they want to sell to?

A: The purchase of mitigation from the water bank is a business transaction, not regulated in the same way as state water right processing.

When a purchase agreement is completed between TransAlta and the party purchasing water for mitigation, the party then applies to Ecology for a new mitigated permit. Ecology assess whether their new project meets the Four-Part Test (i. water will be put to be beneficial use, ii. water use will not impair senior water rights, iii. water is physically and legally available, and iv. the water use is in the public interest).

Q: Will agriculture adjacent to the Skookumchuck River be given priority to purchase water rights from the water bank created from the Trans Alta transfer?

While no type of beneficial use has a higher priority than any other for purchasing mitigation from the water bank, TransAlta has considered the need for agriculture water and does anticipate being able to supply water for irrigation. However, TransAlta’s mitigation water is largely limited to mitigate for projects located downstream of its existing diversion point, and not upstream. Water supply projects located upstream from TransAlta diversion point will have to be evaluated on a case by case basis and may not be viable, depending on the specifics of the project.

Fish Passage and Habitat

Q: What is the mortality rate of juvenile salmonid fish that pass through the dam or over the spillway?

A: Only steelhead are transported above the dam, and they have only been transported two of the last ten years. Because of this, we do not have enough data from fish migrating downstream to answer this question. The design of the dam exposes juvenile fish to high velocities and other hazards, so we suspect mortality is high, but there are no studies that have addressed this.

Q: What is the difference in water temperatures above and below the dam? How do those temperatures compare to the temperatures required by fish?

A: We do not have access to any temperature data upstream of the reservoir. The dam is operated to reduce downstream water temperature during the summer. On average, yearly

maximum summer 7 day average daily maximum temperatures (7DADMax) are 19 F near Bloody Run at the dam and 23 F at Bucoda, compared to the Core Summer Salmonid Habitat criterion of 16 F. See page 18 of the September 2021 Analysis Memo for more detail.

Q: Has WDFW studied the number of salmon and steelhead that return to the dam, and the number of juvenile fish that pass downstream through the dam?

A: WDFW has an active fish monitoring program on the Skookumchuck. They track the number of redds (salmon nests) constructed during the spawning season, and also count observed fish. The data they collect is publicly available on their SCoRE website.

At the moment there is no tracking of juvenile fish passing through the Skookumchuck dam.

Q: If the dam is removed, will the reservoir walls below the water line have increased erosion that raises the turbidity of the river water, possibly killing the fish?

A: If the dam is removed, one element of removal will be remediation of the reservoir area, including stabilizing the slopes. The drawdown of the reservoir would also be carefully controlled to minimize the risk of slope failure.

Q: Are fish currently trapped and hauled upstream of the dam?

A: Yes, WDFW operates a program to trap steelhead and transport them above the dam for release. That program operated through 2008 when it was paused, and was restarted in 2020. No other fish are transported above the dam.

Inspections and Safety

Q: On February 21, 2022, there was a sudden drop in flow on the Skookumchuck for several hours. What caused it, and how can we make sure it won't happen again?

A: The Skookumchuck Dam is regulated by the Federal Energy Regulatory Commission (FERC). On February 21st FERC conducted a required inspection of the piping that conducts water through the dam. TransAlta closed the intakes so that FERC could safely perform the inspection. In the past during these inspections, water has been spilling over the spillway or through the sluice. During this inspection the water was below the spillway and the sluice was plugged with debris, so there was temporarily no way for water to pass the dam.

FERC, TransAlta, and the Washington Department of Fish and Wildlife (WDFW) have been coordinating to ensure that future inspections are conducted in a way that minimizes the impact on the river and the fish within it.

Q: What kind of maintenance does the dam need?

A: The dam is regulated by the Federal Energy Regulatory Commission (FERC), which sets minimum standards for maintenance and upkeep. These include regular inspections, an operations manual, trained staff, and other measures. Refer to the FERC webpage on dam safety and inspections for more details.

Q: In addition to TransAlta, who is responsible for maintaining the dam?

A: As owners of the dam, TransAlta is legally responsible for maintaining it. The Federal Energy Regulatory Commission (FERC) is responsible for inspecting and ensuring that the dam is being maintained.

Q: When will the dam be relicensed?

A: Dams that produce fewer than 10 megawatts, like the Skookumchuck Dam, are regulated by the Federal Energy Regulatory Commission (FERC) as dams that are exempt from licensing. Exemptions are issued in perpetuity, meaning they never have to be renewed.

Hydroelectricity

Q: Are you considering modifying the dam for hydroelectric generation?

A: The Skookumchuck Dam currently operates an approximately 1 megawatt turbine. There are no plans to either expand generation capacity beyond 1 megawatt, or to remove the turbine. If the dam were removed, the existing generating capacity would also be removed.

The March 9 Webinar

Q: How many people attended the meeting?

A: There were 72 people concurrently attending the meeting, at maximum.

Q: Will there be another public forum?

A: Yes, the next webinar will be hosted on September 28, 2022. You can register at <https://chehalisbasinstrategy.com/skookumchuck-dam-study/>. We will also be presenting our findings to the Chehalis Basin Board at one of their public meetings in late 2022 or early 2023.

Q: Is the study of the Skookumchuck Dam linked to the Environmental Impact Statements for the proposed flood retention dam on the Chehalis near Pe Ell?

A: No, these are separate studies.