A Brief History of the Sproat Lake Weir

The weir was installed by MacMillan and Bloedel in 1956 to raise and maintain a higher water level in the summer to supply water from the pumphouse at the end of Stirling Arm to the Port Alberni Pulp Mill.

The original Pulp Mill water license was for up to 60 million US Gallons daily. When all three paper machines were operational, the mill used around 50M US Gallons daily for decades.

Problems accessing water occurred in drier summers when the lake levels dropped, and pumphouse pump pick-ups couldn't get enough water. Lake water levels need to be raised to provide adequate water for the mill. To increase the lake water level, weir plates were manually installed to hold more water back. They could be removed if the outflow in the river dropped below the 750 cubic feet per second demanded by DFO for upstream salmon migration in late summer and early fall.

The plates were manually placed and removed each spring and fall as water levels allowed and dictated. In years when the lake levels rose too fast, the plates could not be removed safely. Higher water and flooding occurred most of those years, especially in 1992 (the second highest recorded level).

By 2014, Catalyst Paper Co.'s water usage was reduced to 15M US gallons of water daily, and it stopped removing the plates and only notch one for flow, possibly for cost reasons. Leaving the plates installed is considered one factor that led to high lake levels and flooding in 2014 (same level as 1992) and 2016. The higher water level years and flooding only occurred when the plates were not removed in the fall.

In 2017 due to community pressure Catalyst agreed to reinstate installation and removal of the plates in the spring and fall.

If the removal of rock adjacent to the weir, as prescribed by the original design engineers and included in the water license, were completed, there would be more stable lake levels and less flooding. Why did authorities not follow up on this requirement?

Removing the rock adjacent to the weir could prevent higher lake levels during pineapple rain events. The weir plates could then remain in all year, reducing the low water issues in Summer. They would only require removal for fish passage, if ever necessary.

The 2020 Northwest Hydraulics Somass Basin Watershed study also found that rock removal would lower high lake water levels, not affect summer levels and reduce downstream flooding in extreme rain events. Unfortunately, the NHC study incorrectly identified the location and rock for removal. This information was not corrected in the final report. Using the wrong small rock area, which is 300 meters further downstream in their modelling, resulted in a totally incorrect projection of the benefit of removing what is affectionately called "Bob's Rock."

The ACRD was asked several times to remove the rock. Mosaic was sent a request by the ACRD about having the rock removed. Unfortunately, since the wrong rock was identified, Mosaic wasn't interested in disturbing a relatively untouched, old-growth Riparian area. But there is a road (former railway grade) right to Bob's Rock. No property or trees would be disturbed to remove the rocks, which would take about a day and a half.

It is a very inexpensive fix (quoted for less than $25,000) that could save hundreds of thousands of flood damage dollars and inconvenience while normalizing lake levels year-round. If done, the plates could remain in place unless DFO requires short-term additional flow.

ACTION

It is time to complete the rock removal work, as prescribed in 1956 which has been supported and lobbied for almost every decade since.

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