



Gitanyow *Fisheries* Authority



July 28, 2020

2020 Kitwanga River Salmon Enumeration Facility Update #1

The Gitanyow Fisheries Authority (GFA) is pleased to announce that the Kitwanga River Adult Salmon Enumeration Facility (KSEF) is operational for 2020. Like in other years GFA will be providing weekly updates on salmon escapement to the Kitwanga River (middle Skeena index) from July through to the end of October. This year marks the 18th consecutive year that GFA has implemented the program, which collects important in-season pacific salmon stock assessment and biological information. GFA would like to thank their 2020 funders and supporters, specifically the Gitanyow Chiefs (Gitanyow Huwilp Sustainability Fund), the Pacific Salmon Commission's Northern Endowment Fund and Fisheries and Oceans, Canada. GFA would also like to acknowledge and thank the Gitwangak Wilp Simadeeks for allowing GFA to continue to work within their traditional territory, as set out by our 2002 agreement. As in other years, weekly updates will be distributed and posted on our website: www.gitanyowfisheries.com



Downstream view of KSEF on July 27, 2020

Also for 2020, GFA in partnership with researchers from Simon Fraser University (led by Dr. Vicki Marlatt) will be building on the KSEF infrastructure and scientific program to include the monitoring of Kitwanga River salmon stocks using environmental DNA (eDNA). More specifically, researchers will quantify the number of fish passing the KSEF fish fence based on the eDNA samples collected from the Kitwanga River in conjunction with establishing a discharge rating curve and compare this information with traditional salmon counting methods at the facility from June till November of 2020. The hope is that this project will demonstrate the potential of eDNA for quantifying salmonids in the Kitwanga River and that these methods can also be applied to the many rivers currently not assessed in BC. This project was funded through Genome BC's Sector Innovation Program.

GFA staff installed the in-river KSEF components from July 6-10, 2020 under higher than normal water level conditions. The fence was fish tight by the end of the day on July 10, our usual start date. For 2020, we once again have installed and have operational, a digital video camera recorder (DVR). The DVR camera box has been in place and operational since July 15, 2020 and has been passing Chinook successfully.

The water levels at the KSEF are currently at **0.98m**, approximately 0.19m above the long-term average (see KSEF water stage graph below for more detail). Water temperatures in the Kitwanga River are slightly lower than normal for this time of year and are currently fluctuating between 10-14°C. Total salmon counts to the end of **July 27, 2020** are as follows:

Sockeye = 0 Chinook = 16 Pink = 0 Chum = 0 Coho = 0

To date we have counted **0 sockeye** through the KSEF. This year's sockeye escapement compares to a previous **maximum** observed to the day of 396 in 2006, which resulted in an overall escapement of 5,139 and the **minimum** observed to the day of 0 in multiple years (2007, 2008, 2012, 2013, 2017 and 2019), which resulted in overall escapements of: 240, 1,200, 5,478, 828, 375, and 125 for each of these years respectively. Based on average run timing for Kitwanga sockeye to the day (2003-2019) it is predicted that approximately **1.5%** of the run should have passed the KSEF. For more information on cumulative Kitwanga sockeye salmon abundance by day, refer to the sockeye salmon graph below.

To date we have counted **16 Chinook** through the KSEF. We have also counted 52 jack Chinook through the KSEF. This year's Chinook escapement compares to a **maximum** observed to the day of 841 in 2006, which resulted in an overall escapement of 3,014 and the **minimum** observed to the day of 8 in 2010, which resulted in an overall escapement of 852 for the year. Based on average run timing for Kitwanga Chinook to the day (2003-2019) it is predicted that approximately **9.6%** of the run should have passed the KSEF. For more information on cumulative Kitwanga Chinook salmon abundance by date, refer to the Chinook graph below.



