Uu-a-thluk Watershed Renewal Progress Report for 2021-22

November 15, 2022

This update highlights the main activities of the Huu-ay-aht Watershed Renewal Program from April 1, 2021 to October 31, 2022.

1. The **Technical Working Group** met twice in 2021 (March 31 and November 17) and twice in 2022 (February 25 and March 22) to discuss program plans, budgets, and desired outcomes. Work commenced on a **10-year Renewal Implementation Plan** that will lay out assessment, watershed restoration, monitoring and salmon rebuilding initiatives.

2. Additional **Stream Habitat Restoration Design** work was completed for the proposed Blenheim side channel at the confluence of the Sarita and South Sarita rivers. This side channel will provide valuable habitat for juvenile salmon in the Sarita.

3. Additional **Road and Stream Crossing Deactivation** work was completed in several areas within the Sarita watershed including a stream crossing removal on an unused spur road in the Sarita estuary that was constructed in the 1950s.

4. Meridian Forest Services continued with **Riparian Area Treatments** in the Sarita and Pachena watersheds in 2021. The main treatment in 2021 was brushing of the areas.



Riparian treatments in Sarita

5. The installation of **Fish Stream Signs** continued at crossings of fish bearing streams within the Ḥahuułi to inform travellers of where extra caution is warranted. These signs feature a yellow salmon designed by a Huu-ay-aht artist, Edward R. Johnson.



6. **Flow Monitoring** in Rousseau Creek and upper Pachena River continued in 2021 and 2022. These stations monitor water levels and discharge each year.

7. Assessments of **Western Toads** at Frederick Lake were conducted in 2021 under the guidance of Barb Beasley of the Association of Wetland Stewards for Clayoquot & Barkley Sounds. The work led to the remediation of shoreline habitat and the vehicle entrance as well as toad crossings under the Bamfield Road in 2022.



Western Toad habitat being restored

8. Surveys of **Wildlife Use** using remote cameras was expanded in 2021/22 to provide increased coverage in the Sarita, Klanawa and Carnation Creek watersheds. The objective of the study is to understand the occurrence and distribution of key wildlife species including resident Roosevelt elk, Columbian black-tailed deer, gray wolf, and cougar. This information

is being used to inform the Integrated Resource Management Plan for the hahuułi.



9. The **Sarita Rotary Screw Trap (RST)** project continued in 2021 and 2022 to study young salmon migrations and successfully operated in both years. Crystal Clappis, Leonard Nookemus, Tom Joe, Barry Halvorson, Trinity Morrow, Andrea Lucas, Dennis McCarthy, Sydney White, Linnaea Bowes, Amaya Black, Amelia Vos, Katie Turner, Scott Cheyne all participated in the study. In 2021, 600,000 Sarita Chinook emigrated to the ocean of which 300,000 were from river spawners. In 2022, 1,000,000 Sarita Chinook emigrated to the ocean of which 680,000 were from river spawners. The rest were from hatchery reared Chinook.



Sarita RST

10. The 2022 outmigration for Chinook from the Sarita was the second year in the past five years that 100% of the hatchery Chinook were marked prior to release. The Pacific Salmon Commission **Mark Selective Fishery** Fund provided support to ensure that this is again completed for the 2023 and 2024 migration years, thereby allowing the mark-selective citizen fishery to continue in these upcoming years.

11. DFO provided funding to the Program to allow for an initial assessment of **Freshwater Residency of Chinook Salmon** in the Sarita and the food preferences of those juvenile salmon. This work is hoped to continue in subsequent years.

12. The **Sarita Estuary Monitoring** study continued in 2021 and 2022 and is monitoring of the use of the Sarita estuary by salmon and other species and supporting the evaluation of restoration efforts in the estuary.



13. The Program continued to support the **Salmon Escapement Counts** on the Sarita and Pachena. The Program also assisted Huu-ay-aht First Nations Fisheries with **Brood Stock Collection** for Sarita Chinook at Nitinat hatchery and chum and coho at Sugsaw hatchery.



Counting salmon in Rousseau creek

14. The Program received funding from the Aquatic Habitat Restoration Fund (DFO) to prepare **Technical Reports** for the extensive sampling in the Sarita and Numukamis Bay area that was conducted in 2018. These data on fish distributions, habitat condition, birds and bats, terrestrial molluscs, and water and sediment quality provide an extensive baseline of conditions of Numukamis Bay.

15. Glynnis Horel completed an **assessment of the Sarita and Pachena watersheds** that considered changes in stream condition over time, hydrologic recovery from forestry and sediment sourcing from landslides, roads, and stream banks. The report provides recommendations with respect to managing risk of slope and road failures and erosion in future forestry planning and operations.



South Sarita Watershed

Huu-ay-aht Employment

Over ten different citizens worked on the Program during 2021 and 2022. Safety training was provided to those who needed it to be able to participate in the work. We are greatly for the continued involvement of our Huu-ay-aht workers.

Technical Reports

In total, 30 **Technical Reports** have been completed so far for the Watershed Renewal Program. Final reports are available for downloading from the Huu-ay-aht website (https://huuayaht.org/watershed-renewal-project/)

All of the data collected by the Program since 2017 has been consolidated into a **Georeferenced Database**.