



WATERSHED TALK

NEWSLETTER

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2024 WATERSHED TALK NEWSLETTER UPDATE

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Today's issue of the WST contains a copy of the FSMC and UFFCA's Chilcotin slide update issued on August 6th, with links to keep at hand so you can stay informed, the Fraser River Panel summary data, and Community Updates from Sta'at'imc and Semá:th Nations.

FSMC and UFFCA CHILCOTIN RIVER LANDSLIDE Update

The UFFCA and FSMC are aware of the commitment that was made during the first update call facilitated by the FSMC on August 2, 2024, and apologize that regular communications on the status of the slide did not occur via this venue over the weekend. There was so much great media being disseminated via other venues such as the Saturday afternoon All-Chiefs Update with the Province and DFO, First Nations from across the Fraser and South Coast Region were provided the opportunity to hear about the slide and ask questions, Global TV Coverage has also been excellent sources for slide updates. In addition, there were continuous social media updates from local First Nation leadership and BC Wildfire did a great job of posting videos while the river started to flow and mostly what we would be communicating was a reiteration of that information.

You can find further information on the Provincial Chilcotin River Slide Update Page, link as follows:
<https://chilcotin-river-landslide-2024-bcgov03.hub.arcgis.com/> -

With regards to salmon assessments, as safety was of utmost priority, it was difficult to secure an overflight to assess the implications to salmon below the slide itself and provide that information, however, late Sunday afternoon (August 4) the Upper Fraser Fisheries Conservation Alliance (UFFCA) secured a flight to complete this

flight. The following is a summary of what was observed from the slide downstream to the confluence of the Chilcotin River with the Fraser River mainstem.

Between the slide and Farwell Bridge nine live salmon were observed. These were primarily Chinook with 2 sockeye included. There were also five 5 dead fish which looked to be all sockeye. No other salmon or fish species were observed below Farwell bridge to the confluence with the Fraser.

Upon reaching the Chilcotin River confluence with the Fraser River, salmon were observed finning immediately within the mixing of the Fraser River with the cleaner water originating from Big Creek a tributary to the Chilcotin River located downstream of the slide. The Fraser was too turbid to determine abundance of fish in this area.

We also flew downstream on the Fraser about a km and checked the eddies, upstream, for finning fish. No observations.

We also continued the flight upstream several kilometers to Iron canyon. No observations of finning fish were observed in this area.

On Tuesday August 6, 2024 @ 2:30pm an All-Chiefs Emergency Update was hosted by the Province and more recent updates were provided. There continue to be around the clock monitoring at the slide for water flow and landslide movement and it is expected that high flows will continue through the slide for several days until the reservoir levels recede to near normal levels. See public site link above. The downstream flow is expected to reach Boston Bar this evening around 7pm and the area around Hope, BC near midnight.

Thank you all for the support and if there are any questions feel free to reach out. We will do our best to get the answer and respond.

FRASER PANEL UPDATES

Fraser Panel Weekly Summary for August 9, 2024

See the full version of the Panel report here - [Weekly Report No. 5](#)

The Panel met to review in-season assessment data on Fraser River sockeye salmon. The Pacific Salmon Commission also shared the same provincial link for [Chilcotin River slide updates](#), as was shared earlier in the WST.

Test Fisheries and Stock Identification¹ - Marine test fisheries concluded August 3 and 4 in Area 20 and Area 12, respectively. The annual diversion rate through Johnstone Strait of 42% is higher than the preseason expected 33%. DNA analysis of the most recent fish sample collected on August 6 from Brownsville Bar test fishery indicated Fraser River sockeye contributions of 12% Early Summer, 82% Summer run and 5% Late run.

Assessment Results¹ – The estimated escapement plus catch of Early Summer-run sockeye through August 8 is 132,600. Based on the latest in-season assessment provided by the PSC staff, the Panel adopted a revised run size of 140,000 for the Early Summer-run, with an associated Area 20 run timing of July 14 Proportions of the Early Summer run stocks have declined substantially in marine areas.

The estimated escapement plus catch of Summer-run sockeye through August 8 is 144,300. Based on in-season observations, the Summer run seems to be smaller than preseason expectations (median preseason forecast of 379,000). Late Stuart and Stellako are the most abundant part of this management group. Chilko and Harrison are tracking below preseason expectations. Overall, the migration timing of the Summer run seems to be tracking three days later than expected preseason. The Panel adopted a revised run size for the Summer run of 300,000, with an associated Area 20 run timing of August 2, which is below the preseason median run size forecast (p50) of 396,000.

For Late run, preseason expectations have been limited for this group. The median preseason forecast was 29,000 sockeye and to date few fish have been observed in the marine and in-river test fisheries. This run is expected to be smaller or later than forecast or a combination of both. The majority of these Late run fish (85%) are not expected to delay their upstream migration into the Fraser River given that the forecast consists primarily of non-delaying Birkenhead and Big Silver sockeye. The estimated escapement plus catch of Late-run sockeye through August 8 is 3,100.

Migration conditions in the Fraser River¹ - Migration conditions in the Fraser River this week have been impacted by the consequences of the Chilcotin slide which had blocked the entire width of the Chilcotin River. On August 5, the dam was breached, initially resulting in a flood surge, in particular in the Chilcotin itself. It is assumed that the slide area will be cleared of acute hydraulic challenges for migrating salmon within the week. In the mainstem of the Fraser River, including at Hells Gate and at Big Bar flows have already receded back to pre-event levels. While there was not a significant increase in water levels, the amount of debris and sediment in the river has been extreme. Increased sediment and turbidity have negative impacts on fish and can lead to physiological damage. There have been no obvious changes to fish migration behavior in the lower Fraser River, but reports from the Qualark program, which is near Yale, indicate that fish passage has slowed considerably in the last couple of days.

On August 8, the Fraser River water discharge at Hope was about 2,711 cms, which is back to pre-event levels and 26% below the historical mean discharge level for this date while the temperature was 19.8°C, which is 1.2 °C higher than average for this date, and considered a temperature at which successful migration is impeded. The negative impacts of high temperatures on migration success are further compounded by the current impact of high sediment loads and water turbidity. DFO's Environmental Watch program projects that river temperature will decrease slightly to 19.4°C by August 14. Given the elevated temperatures and very low flows in the Fraser River, the Panel adopted a revised management adjustment (pMA) from 0.28 to 0.56 for the Summer run. For this year, the small overall run sizes do not allow for any harvest but in a year where harvest was a potential, the increased pMA would provide more fish to spawning escapement to compensate for migratory loss from the environmental conditions. It is expected that the sediment and turbidity will improve once the main slide material has pushed through the system. Within the Chilcotin, there might still remain episodic pulses of sediment from continued sloughing, but this impact is greatly diluted once the water hits the Fraser mainstem. Due to the turbid water conditions observers at Hells Gate are finding it difficult to see fish at this time.

Taseko and Chilko sockeye assessment and migration within the Chilcotin River¹

Due to the low expected Taseko sockeye return (median preseason forecast of 67 sockeye), it is not possible to provide in-season updates of run size and timing for this stock. Based on historic observations, the peak migration of Taseko past the Mission site is July 26. It is estimated that it takes about 12-13 days to migrate from Mission to the landslide area which means that peak migration past the slide area would have occurred around August 7-8.

Based on current migration conditions, migration past the slide area is expected to be delayed. In partnership with DFO, Tsilhqot'in National Government monitor the number of Taseko sockeye arriving at the spawning grounds.

Based on current in-season assessments, a total of 125,000 sockeye are expected to migrate to the Chilko spawning grounds this year which is below the preseason forecast of 176,000. As of August 8, 34,000 Chilko sockeye have migrated past Mission and approximately, 4,600 Chilko sockeye are expected to reach the landslide area in the next 4 days. Peak migration of Chilko sockeye at the landslide area, assuming normal migration speeds, is expected to occur around August 25-26. It would normally take sockeye about five days to migrate from the Chilcotin landslide to Lingfield, the spawning ground monitoring site. The 250 sockeye currently counted at Lingfield are assumed to have migrated past the slide area prior to the landslide.

Escapement update¹ - Visual surveys for Early Stuart began July 20, and a few sockeye have been observed in the system. These sockeye have been holding and no spawning behaviour has been observed. The Upper Chilliwack River hydroacoustic site has been operational since July 10 and a total of 8,714 sockeye have been estimated into the river as of August 7. The Nadina River hydroacoustic site has been operational since July 26 and only a few targets have been detected by the sonar. The Stellako River hydroacoustic site has been operational since July 25, and 11,706 sockeye have been counted as of August 4. Most of the sockeye salmon counted at the Stellako site are assumed to be Nadina River sockeye. The Chilko River hydroacoustic site has been operational since July 31 and as of August 6, 250 sockeye have been counted. The counting fence at Sweltzer Creek (Cultus Lake) has been operational since July 29 but no sockeye have been counted through the fence to date.

Regulatory Announcements & Resources¹ – Commercial fisheries in Canadian and United States Fraser River Panel area waters remain closed.

FISHERIES AND OCEANS CANADA – FRASER RIVER SOCKEYE IN-SEASON UPDATE FOR AUGUST 9, 2024

[2024 Fraser River Sockeye Escapement In-Season Update](#)

[Fraser River Sockeye Update # 9 - August 9, 2024](#)

COMMUNITY UPDATES



Sta'at'imc Nation's Portage Creek Chinook Enhancement Program *submitted by Rebecca Riley*

Portage Creek Chinook are classified as a vulnerable single-site Conservation Unit under the Government of Canada's Wild Salmon Policy. This stock has experienced declining returns for approximately 20 years, with current adult Chinook numbers likely insufficient to sustain the population. Fisheries and Oceans Canada

(DFO) projects that without intervention, this population could face extinction within the next two generations (ten years), leading to the loss of a genetically unique Conservation Unit. To address this, DFO, in collaboration with the St'at'imc Nation, Shalalth community members, St'at'imc Government Services, Instream Fisheries Research, and BC Hydro's Fish and Wildlife Compensation Program (FWCP), has proposed a strategic enhancement plan to preserve and rebuild this population while investigating the factors contributing to its decline.

Salmon hatcheries play a crucial role in salmon conservation and management. At Tenderfoot Salmon Hatchery, staff collect eggs from wild Chinook adults returning to Portage Creek, incubate them under controlled conditions, and raise the fry until they are large enough for survival in the wild. After about a year and a half, these young fish are released back into Portage Creek, aiding in population recovery. Since 2019, DFO, in partnership with the St'at'imc First Nation, Xwisten First Nation, and Shalalth community members, has been conducting brood stock collection and spawning each October. The program has successfully released yearling juveniles each year, with 50,079 fry from the 2019 brood year, 25,251 from the 2020 brood year, 15,883 from the 2021 brood year, and 31,238 from the 2022 brood year.



Currently, the hatchery has 42,857 fry from the 2023 brood year in rearing, scheduled for release in April 2025.



In October 2023, the first hatchery Chinook adults returned to Portage Creek, with 50 hatchery Chinook caught and released to contribute to the spawning population. These higher returns benefit the ecosystem by providing more prey for predators like bears, eagles, and other fish, and by enhancing nutrient enrichment in freshwater and riparian areas as decomposing fish release essential nutrients. This supports plant and microorganism growth, boosts genetic diversity, and aids in the overall recovery and sustainability of the Portage Chinook population.



Semá:th First Nation Conservation and Stewardship Projects – submitted by Chantel Homme

Semá:th First Nation (Sumas First Nation) is located in Abbotsford, British Columbia, and is part of the larger Stó:lō Nation. We have a rich cultural heritage, closely connected to the Semá:th Xó:tša (Sumas Lake) and nearby waterways. The community is heavily focused on culture, governance, natural resource protection, education, health, economic development, and housing, striving to maintain their cultural identity while fostering relationships with surrounding communities. Our commitment to environmental stewardship and sustainable practices underscores our dedication to preserving our lands and resources for future generations.

Natural resource protection and guardianship are spearheaded by our Governance and Natural Resources Department; a special focus has been placed on sustainable practices and cultural preservation, emphasizing the health of ecosystems for future generations. Specifically, our fisheries initiatives include projects aimed at supporting and monitoring local fish populations, demonstrating a resounding commitment to biodiversity and sustainable fishery management.

Two important ongoing projects make up a portion of our Conservation, Guardianship, and Harvesting (CGH) Program.

1. **Weir and Trap Box Project:** Sts'elxwíqw' (Chilliwack River), Abbotsford BC. Sumas First Nation has installed a weir and trap box paired with underwater camera to study the impacts of in-stream stressors on salmon migration in the Chilliwack River. The Weir will guide salmon into the trap box to be bio sampled and released, or visually identified using an underwater camera when the box is open. Sumas is taking a holistic approach using indigenous knowledge and techniques, paired with scientific evidence, to understanding declining salmon populations.



CGH Site: Weir & Trap Box at Sumas-Chilliwack River in Abbotsford, BC

2. **Sonar Project:** Lhewámel (Vedder River), Chilliwack BC. Sumas First Nation has installed sonar technology in the Vedder River; this is being used to track fish migration and species. In collaboration with UBC, and in addition to the sonar, solar panels have been installed near the same site in order to track pre-tagged fish using radio telemetry.



CGH Site: Sonar Technology at Vedder River in Chilliwack, BC

Semá:th is also involved in several restoration and flood mitigation projects and planning initiatives, including:

3. **Sumas River Tributaries Stewardship & Restoration Project.** Clayburn Creek, Kilgard Creek, and McKay Creek, Abbotsford BC. Clayburn Creek watershed is an important part of the overall Semá:th Lake system which historically SFN has relied upon for fish to feed the community. However, over time this important watershed has been degraded by ongoing resource extraction and land development, thereby limiting SFN access to fish for harvest and impacting social and spiritual practices. The main goal of the project is to reduce threats, implement key recovery strategies and carry out habitat restoration activities. The project will also directly support SFN's effort to improve the Nation's co-management of environmental stewardship and focus on building capacity. Additionally, SFN will undertake water quality monitoring and flow assessments that will inform future restoration of two affected tributary streams of the Lower Sumas River on the south side of Sumas Mountain (Kilgard Creek and McKay Creek). The additional work will continue to build capacity within Sumas First Nation for ongoing watershed stewardship and restoration activities, build a better understanding of current habitat conditions (within the Lower Sumas River) that impair fish habitat productivity, identify strategic priority habitat enhancement and restoration opportunities that can address some of these impairments, and begin to address them through concept designs of at least two habitat restoration projects.

4. **Sumas River Watershed Flood Mitigation Planning Initiative** (Comprised of the Semá:th, Matsqui and Leq'á:mel First Nations, City of Abbotsford, City of Chilliwack, and Province of BC). This joint effort aims to mitigate flooding within the Sumas Watershed by fostering cooperation between local governments and First Nations communities. All partners are actively working together to support flood mitigation solutions, enhance emergency preparedness, preserve important cultural and environmental areas, and reduce the risk to people, structures, places, and the environment.



Sumas River Tributaries Stewardship & Restoration Project: Clayburn Creek, Abbotsford BC

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Subscribe to the FSMC calendar by clicking the subscribe to calendar button found at the bottom, right under the calendar by clicking here: <https://frasersalmon.ca/events/>

The next Fraser River Panel meeting is scheduled for **11AM Tuesday, August 13th**.

(Tuesdays and Fridays 11am.)

You can also access the webinar for observing the Fraser River Panel meetings:

Please click the link below to join the webinar:

<https://psc-org.zoom.us/j/89632608507>

One tap mobile:

8887880099,89632608507# US Toll Free

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Dial In:

855 703 8985 Canada Toll Free

Webinar ID: 896 3260 8507

Mid- Fraser River attendees please text your questions during FRP calls to Greg Witzky at 778-694-9154. Can also email them to executivedirector@frasersalmon.ca

Links

With Chinook and sockeye approaching and, in the Fraser, these links may be of interest:

BC River Forecast Centre Website: <http://bcRFC.env.gov.bc.ca>

Environment Canada's Water Office Website: http://www.wateroffice.ec.gc.ca/index_e.html

Pacific Salmon Commission Website: www.psc.org

Pacific Salmon Commission Test Fisheries: http://www.psc.org/info_testfishing.htm

Pacific Salmon Commission News and Regulatory announcements: <http://www.psc.org/publications/fraser-panel-in-season-information/fraser-river-panel-regulatory-announcements/>

Fraser River Mission Escapement Reports: <http://www.psc.org/publications/fraser-panel-in-season-information/fish-passage-past-the-psc-hydroacoustic-counting-station-near-mission-bc/>

Fraser River Environmental Watch Reports: <http://www.pac.dfo-mpo.gc.ca/science/habitat/frw-rfo/index-eng.html>

The Albion Test Fishery information can be found at:

<http://www.pac.dfo-mpo.gc.ca/fm-gp/fraser/docs/commercial/albionchinook-quinnat-eng.html>