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TNG-led Emergency Salmon Task Force Weekly Data Report Aug 26 – Sep 01, 2025

1. INTRODUCTION

A major landslide occurred on the Chilcotin River on July 30, 2024, that dramatically and immediately impacted sockeye and Chinook populations returning to the Chilcotin Watershed to spawn. In response to the slide, the Tŝilhqot'in National Government (TNG) rapidly formed a technical tripartite Emergency Salmon Task Force, comprised of BC, DFO and TNG's indigenous technical partner, the Upper Fraser Fisheries Conservation Alliance (UFFCA), to assess the impacts on returning salmon, and prepare and implement mitigation measures to reduce risks and impacts for the 2024 salmon season. Post-season analysis has shown that the landslide had significantly negative impacts on both sockeye and Chinook populations, and the risks and impacts to salmon are anticipated to be significant and ongoing for years. TNG and the Task Force continued monitoring in 2025 (Figure 1) using refined and expanded methods that permit monitoring of the full suite of returning salmon stocks and associated environmental conditions related to the landslide – critical information to inform both in-season response and recovery planning.

The following weekly report prepared by TNG with support from Ecofish, summarizes 2025 monitoring data for fish passage and environmental conditions (river conditions update) from May 01, 2025, to September 01, 2025 (start date varies with program). This summary includes:

- Salmon passage upstream of the slide site (Hanceville) and concurrent turbidity and flow conditions downstream of the slide site (Farwell Canyon); and
- River conditions in the Chilcotin River upstream and downstream of the slide site (turbidity and discharge) and the Fraser River upstream and downstream of the Chilcotin River confluence (turbidity).

This will be the final weekly report of the 2025 Chilcotin salmon migration period. Significant management decisions have already been made and we have met the primary in season fish passage monitoring objectives. We will continue to monitor fish passage through the Hanceville SONAR until at least September 12, 2025 and river conditions (including turbidity, discharge, and temperature), through the remainder of 2025. River conditions will be used as a proxy to identify conditions that could affect fish passage for Coho and Steelhead.

Key observations from this week include:

- A cumulative total of 1,415,345 salmon have been counted since the start of the program on June 25, 2025, with 910,380 salmon counted during Week #10 (August 26 to September 01, 2025). Salmon passage continues past the slide and passage rates (number of fish per day) of salmon 50 to 64 cm in length, peaked at 177,060 on August 29, 2025 (Section 2.1).
- Pink Salmon have been captured by dip net in Farwell Canyon since September 01, 2025. These fish may arrive at the Hanceville sonar station soon, but will be difficult to identify as they will fall within the lower bounds of the 50 to 64 cm salmon size class, similar to Sockeye.
- Daily mean turbidity in the Chilcotin River downstream of the slide site (Farwell Canyon) is ~30 NTU higher (as of September 01, 2025) than upstream of the slide site (Hanceville) and has remained below

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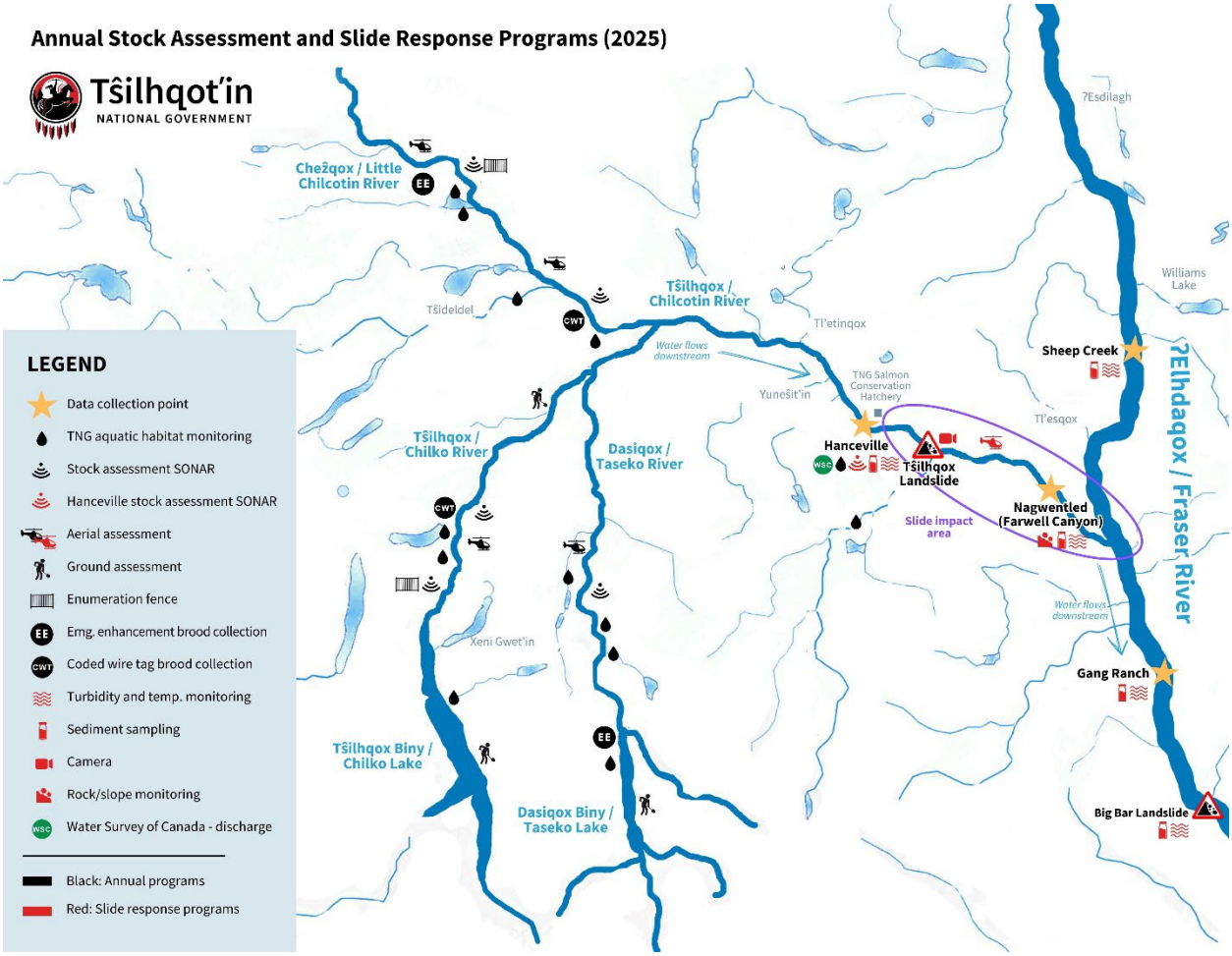
100 NTU since August 17, 2025 (Section 3.1). Daily mean turbidity at both locations is now the lowest recorded since May 29, 2025.

- Turbidity in the Fraser River downstream of the Chilcotin River confluence (Gang Ranch) is ~10 NTU higher (as of September 30, 2025) than upstream of the Chilcotin River confluence (Sheep Creek) as indicated by turbidity monitoring (Section 3.2). Both Fraser River turbidity monitoring stations dewatered on August 31, 2025, plans to service and re-deploy turbidity monitors are underway.

Figure 1. TNG Annual Stock Assessment and Slide Response Programs (2025).



2. FISH PASSAGE

2.1. Hanceville Sonar Update

Daily salmon passage with turbidity and discharge is presented in Figure 3, noting that Olson *et al.* (2024) estimate that salmon passing downstream of the slide site (Farwell Canyon) arrive at the sonar station upstream of the slide site (Hanceville) roughly one to three days later.

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Summary of Salmon Counts

A total of 910,380 salmon were counted during Week #10 (Figure 3). This includes 134 presumed Chinook Salmon (>80 cm in length), that were observed from August 26 to 31, 2025, with peak counts (n = 30) occurring on August 29 to 31, 2025, as well as 909,808 salmon between 50 to 64 cm in length and 438 salmon between 65 to 79 cm in length. 50 to 64 cm salmon observations occurred from August 26 to 31, 2025, and peak counts occurred on August 29, 2025 (n = 177,060). 65 to 79 cm salmon were observed from August 26 to 31, 2025, and peak weekly counts occurred on August 27 and 30, 2025 (n = 150).

Since sonar enumeration commenced on June 25, 2025, a total of 5,654 salmon >80 cm, 27,070 salmon between 65 to 79 cm in length, and 1,382,621 salmon between 50 and 64 cm in length have been counted moving upstream past the sonar station at Hanceville (Figure 4 and Figure 5).

Field Summary of Sonar Operation

Sonar operations ran smoothly in Week #10, with no unplanned outages on either bank (Figure 2). Chilcotin River flows at Hanceville have been increasing throughout the week (Figure 3). Sonar technicians have observed salmon at Hanceville holding at night and swimming downstream more frequently since August 31, 2025.

TNG fisheries technician Gerald William reported catching a Pink Salmon while dip netting at Farwell Canyon on September 01, 2025. It is likely these fish will begin to pass Hanceville soon, some of which may fall into the lower end of the 50 – 64 cm salmon size class. Co-migrating Pink and Sockeye salmon will be challenging to differentiate using current methods.

The new file review protocol implemented on August 14, 2025, continues to be used as daily counts have exceeded 10,000 fish. This protocol scales enumeration effort relative to abundance, while ensuring that we can continue to assess migration rates and detect any fish passage delays.

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Figure 2. **TNG fisheries technician Gerald Williams performing daily maintenance at river-right bank Hanceville sonar station. Captured on Sep 01, 2025.**

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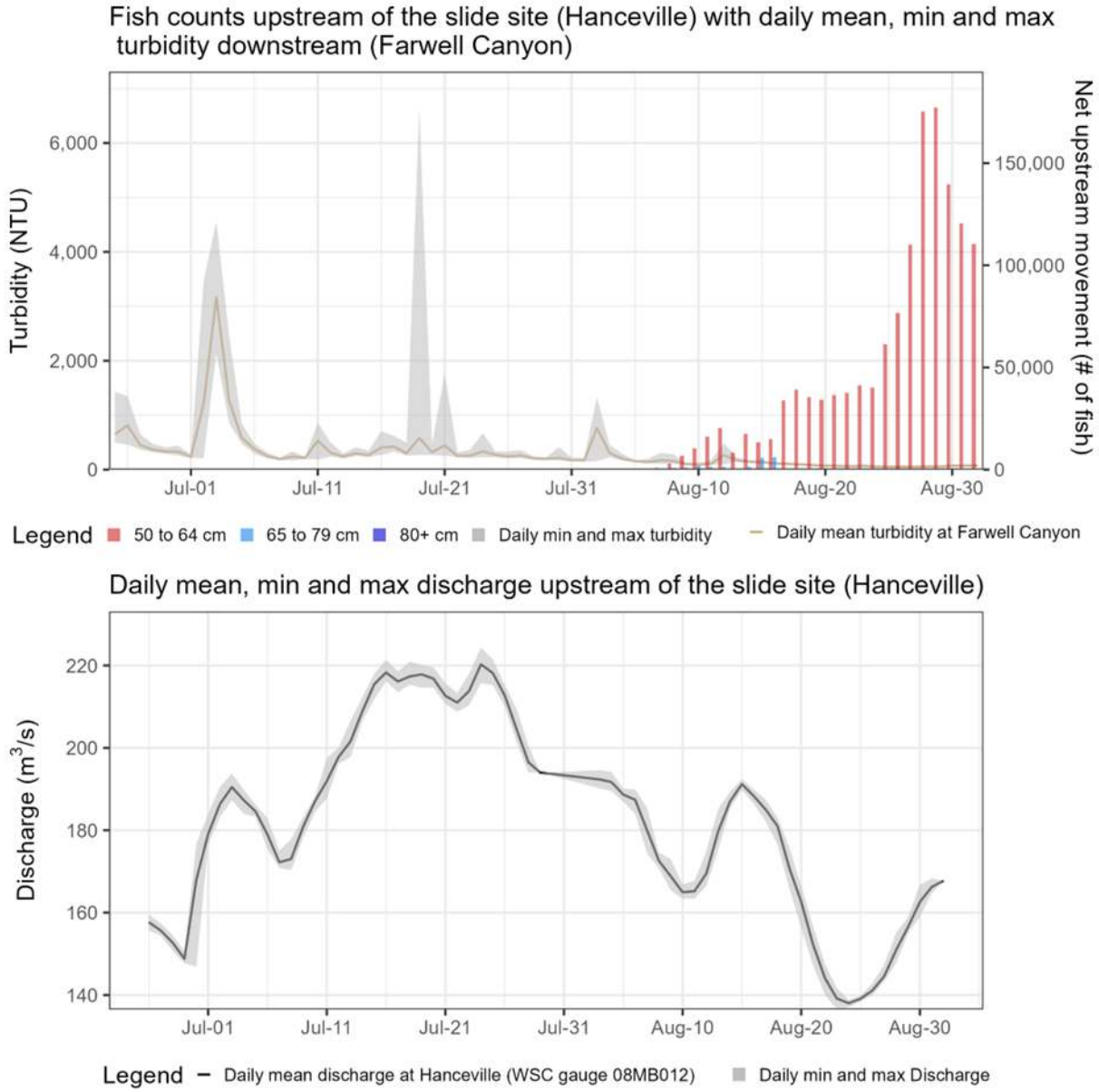
Figure 3. Expanded[1] net daily movement of salmon[2] past the Hanceville sonar upstream of the slide site, with turbidity measured downstream of the slide site (Farwell Canyon) and discharge upstream of the slide site (Hanceville) from June 25 to Sep 01, 2025.



[1] One sonar file was reviewed per hour of sonar operation, with the duration reviewed determined by abundance of fish the previous day at each station. To estimate total fish passage per hour, the hourly counts were expanded by a factor of 60 divided by minutes reviewed to expand to the full hour. Infilling will be completed in post-season analysis.

[2] Mixed salmon separated by size (50 to 64 cm) and (65 to 79 cm), and presumed Chinook (80+ cm), as defined by the Department of Fisheries and Oceans (DFO).

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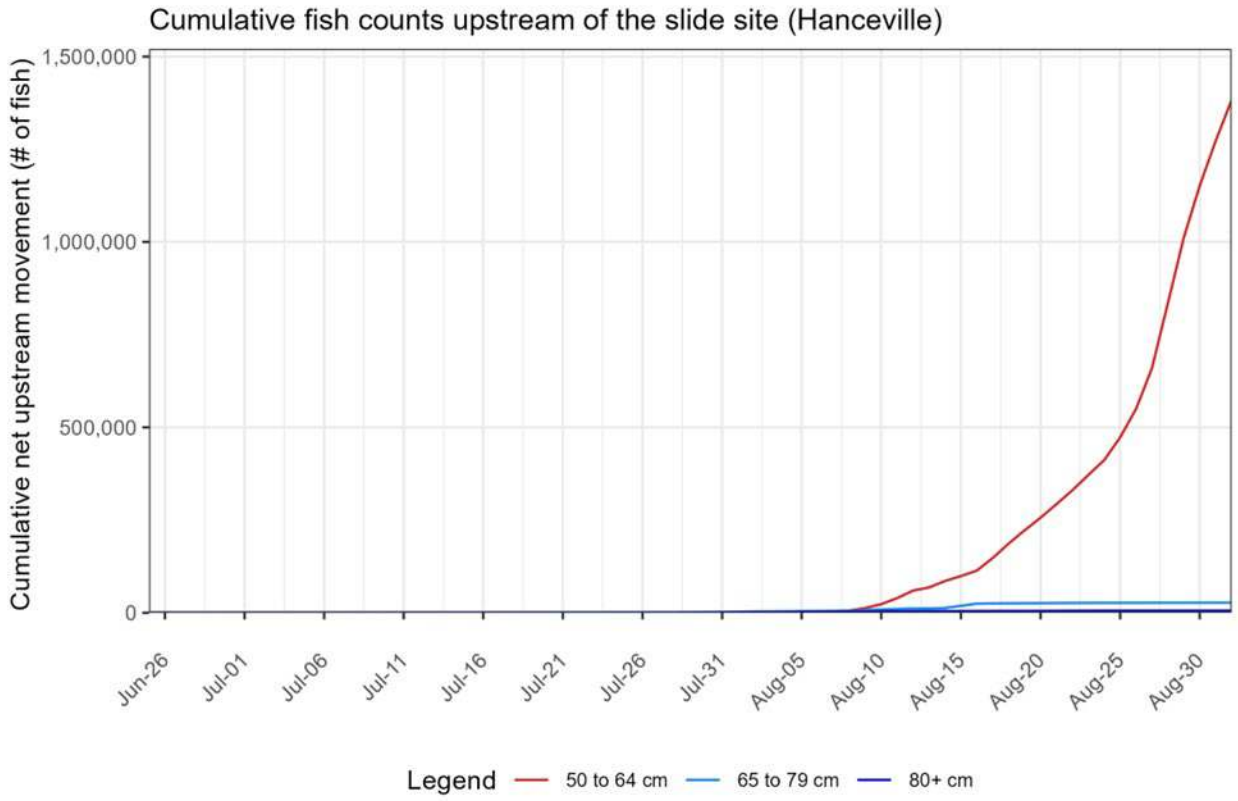
Figure 4. **Expanded[3] cumulative daily counts of salmon[4] movement past the Hanceville sonar upstream of the slide site from June 25, 2025, to Sep 01, 2025.**



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[4] Mixed salmon separated by size (50 to 64 cm) and (65 to 79 cm), and presumed Chinook (80+ cm), as defined by the Department of Fisheries and Oceans (DFO).

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3. RIVER CONDITIONS UPDATE

3.1. Chilcotin River Turbidity and Flow

During the week of August 26, 2025 to September 01, 2025, discharge in the Chilcotin River upstream of the slide site (Hanceville) ranged from 139 m^3/s to 166 m^3/s (mean = 155 m^3/s) (Figure 5). Turbidity ranged from 28 NTU to 37 NTU at Hanceville, with an overall mean of 32 NTU. Downstream of the slide site (Farwell Canyon) turbidity was relatively higher but still remained below 100 NTU for the entirety of Week #10: ranging from 47 NTU to 95 NTU, with an overall mean of 61 NTU. Mean daily water temperatures recorded at Hanceville remained below 18°C and trended downwards throughout the week. No differences in turbidity upstream and downstream of the Farwell Canyon are visible from recent satellite imagery (Figure 6). A ground-level view of the slide site is presented in Figure 7.

Figure 5. Turbidity and discharge measured in the Chilcotin River upstream of the slide site (Hanceville) and turbidity measured downstream of the slide site (Farwell Canyon) from May 01 to Sep 01, 2025.

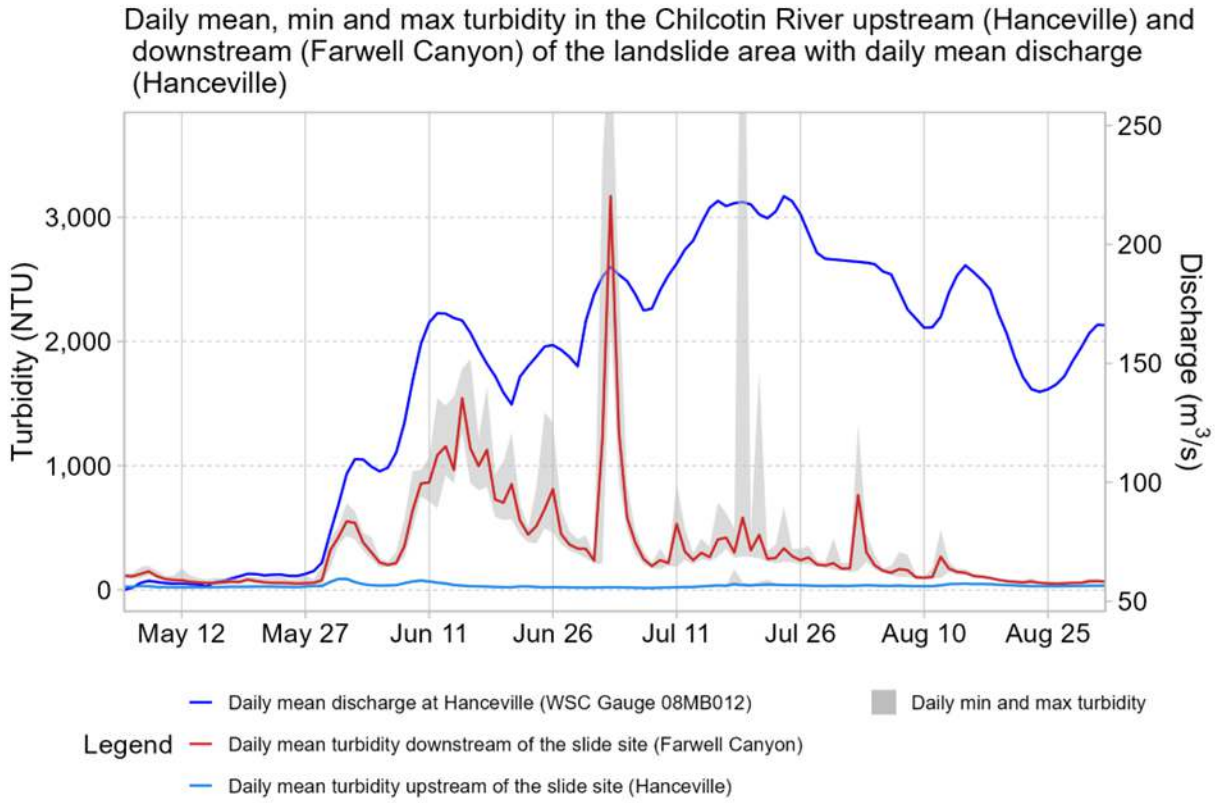

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Figure 6. **Satellite image of Chilcotin River upstream (left) and downstream (right) of the Farwell Canyon slide site on September 01, 2025 (Copernicus 2025).**

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Figure 7. **Looking downstream at the Chilcotin River slide site from the Northwest Hydraulics Consultants (NHC) remote camera installation on September 02, 2025.**

3.2. Fraser River Turbidity and Flow

Both Fraser River turbidity monitoring stations dewatered on August 31, 2025, and turbidity data is only available for August 26 to 30, 2025 in Week #10. Plans to service and re-deploy the Fraser River turbidity monitors are underway. Turbidity upstream of the Chilcotin-Fraser confluence (Sheep Creek) ranged from 17 NTU to 45 NTU, with an overall mean of 28 NTU (Figure 8). Turbidity downstream of the confluence (Gang Ranch) ranged from 29 NTU to 61 NTU (mean = 42 NTU). No difference in turbidity upstream and downstream of the confluence of the Chilcotin and Fraser rivers can be seen in the recent satellite imagery from the junction (Figure 9).

Turbidity data at Gang Ranch from July 29, 2025, to August 08, 2025, has been estimated from data collected by NHC at Big Bar. No suitable data was available to fill the time series upstream of the Chilcotin-Fraser confluence.

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Figure 8. **Turbidity in the Fraser upstream of the Chilcotin confluence (Sheep Creek) and downstream of the confluence (Gang Ranch) from May 01 to Aug 30, 2025.**

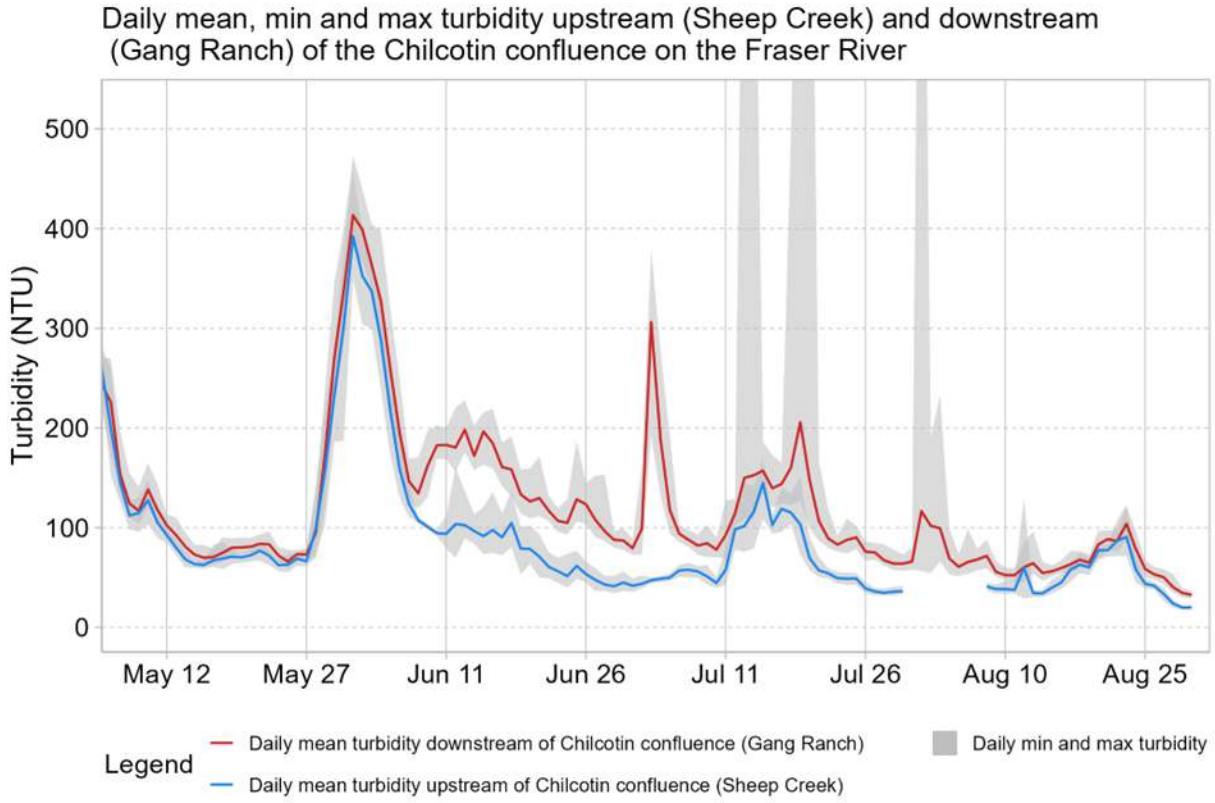

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Figure 9. **Satellite image of the Chilcotin River at confluence with Fraser River on September 01, 2025 (Copernicus 2025).**

Disclaimer:

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