Tŝilhqot'in
NATIONAL GOVERNMENT

OFFICE
253 4TH AVE N
WILLIAMS LAKE BC
V2G 4T4

TSILHQOTIN.CA
TEL 250 392 3918
FAX 250 398 5798

TNG-led Emergency Salmon Task Force Weekly Data Report July 29 – Aug 04 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 to Aug 04, 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).

Key observations from this week include:

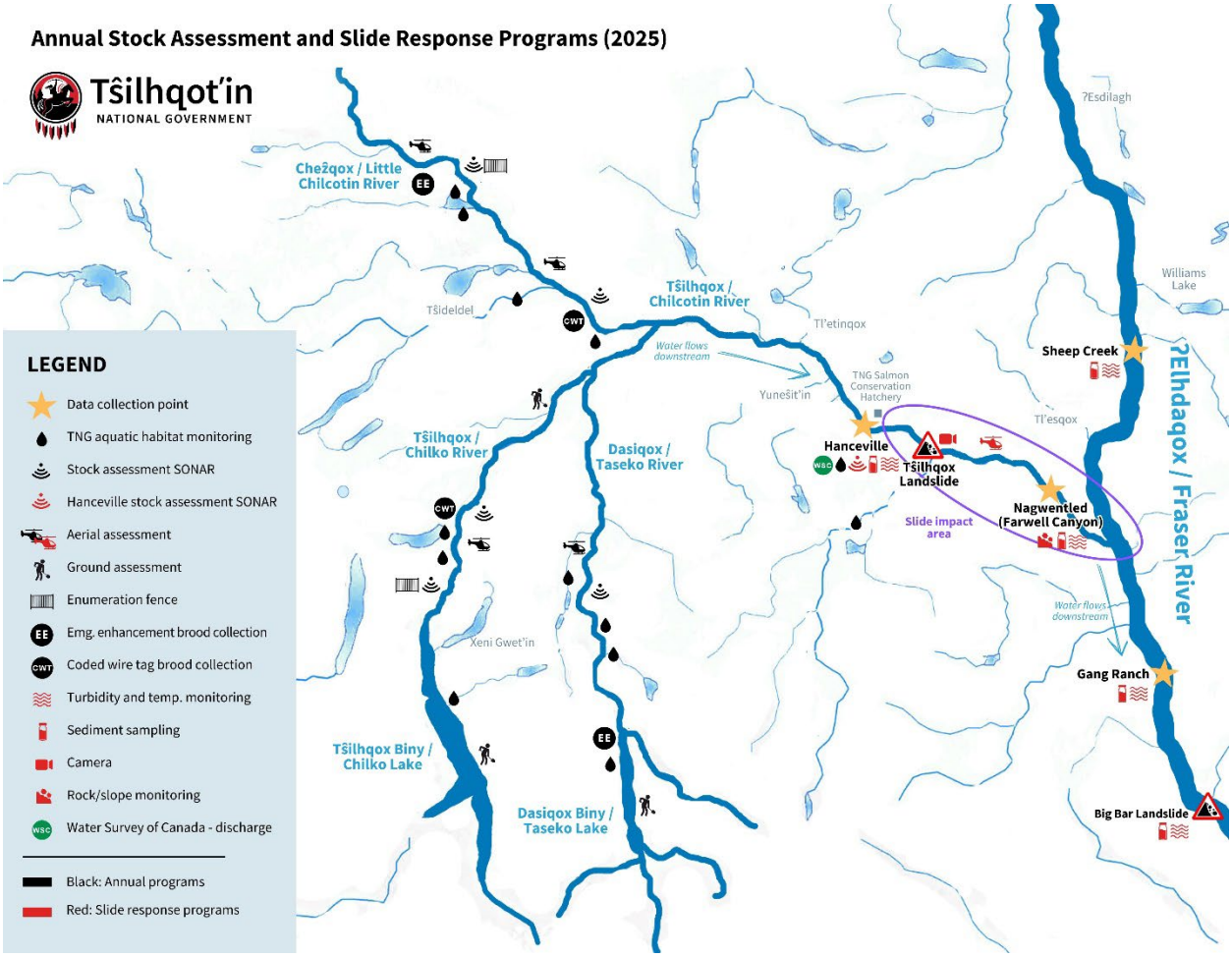
- Salmon passage continues past the slide and passage rates (number of fish per day) have increased for all salmon sizes (Section 2.1). Total daily counts increased consistently across the week until August 03, 2025, when total counts dropped by ~63% (384 fish per day) from August 02 (1,041 fish per day) following a turbidity spike downstream of the slide site. Daily counts increased again to 753 fish per day on August 04, 2025. A cumulative total of 7,495 salmon have been counted since the start of the program on June 25, with 5,322 salmon counted during Week #6.
- Daily mean turbidity downstream of the slide site (Farwell Canyon) spiked to 764 NTU on August 02, 2025 (duration of 14 hours, maximum of 1,331 NTU). Daily mean turbidity remained elevated (305 NTU) on August 03 before returning below 200 NTU on August 04, 2025.
- Continued elevated turbidity in the Chilcotin River downstream of the slide site (Farwell Canyon) compared to upstream of the slide site (Hanceville), as indicated by turbidity monitoring and satellite imagery (Section 3.1).
- Continued elevated turbidity in the Fraser River downstream of the Chilcotin River confluence (Gang Ranch), compared to upstream of the Chilcotin River confluence (Sheep Creek) as indicated by turbidity monitoring and satellite imagery (Section 3.2). Both Fraser River turbidity stations have been

OFFICE
253 4TH AVE N
WILLIAMS LAKE BC
V2G 4T4

TSILHQOTIN.CA
TEL 250 392 3918
FAX 250 398 5798

out of water since July 29, 2025, crews will be servicing both stations this week. Turbidity data at Gang Ranch from July 29, 2025 onwards has been estimated from data collected by NHC at Big Bar. No corrections have been applied to this data apart from a 5-hour offset to account for river distance.

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.

Tŝilhqot'in
NATIONAL GOVERNMENT

OFFICE
253 4TH AVE N
WILLIAMS LAKE BC
V2G 4T4

TSILHQOTIN.CA
TEL 250 392 3918
FAX 250 398 5798

Summary of Salmon Counts

For sonar data, twenty minutes of every hour have been counted and data have been expanded to the full hour. Infilling of data will occur during post-season analysis. A total of 5,322 salmon were counted during Week #6 (Figure 3). This includes 1,724 presumed Chinook Salmon (>80 cm in length), that were observed from July 29 to August 04, 2025, with peak counts (n = 390) occurring on August 01, 2025, as well as 1,128 salmon between 50 to 64 cm in length and 2,470 salmon between 65 to 79 cm in length. 50 to 64 cm salmon observations occurred from July 29 to August 04, 2025, and peak counts occurred on August 02, 2025 (n = 279). 65 to 79 cm salmon were observed from July 29 to August 04, 2025, with a peak count on August 01, 2025 (n =573). The total number of fish moving upstream past Hanceville decreased from 1,041 to 384 fish per day between August 02 to August 03, 2025, following a spike in turbidity downstream of the slide site (Farwell Canyon) on August 02, 2025 (maximum of 1,331 NTU).

Since sonar enumeration commenced on June 25, 2025, a total of 2,254 salmon >80 cm, 3,552 salmon between 65 to 79 cm in length, and 1,689 salmon between 50 and 64 cm in length have been counted moving upstream past the sonar station at Hanceville (Figure 4).

Field Summary of Sonar Operation

Chilcotin River flows at Hanceville have stabilized in Week #6, following a rapid drop during the previous week. Adjustments to the fence and sonar positioning may be required if flows drop further. Sonar operations on both banks ran smoothly this week, with only short, planned outages for routine site maintenance.

The detected increase in salmon migration past Hanceville this week is supported by an increase in salmon catches at dipnet fisheries at both Farwell Canyon and Hanceville. During sonar station visits between July 30 and August 02, fishers at Hanceville caught four Chinook Salmon ranging from 49 cm to 89 cm (Figure 2).

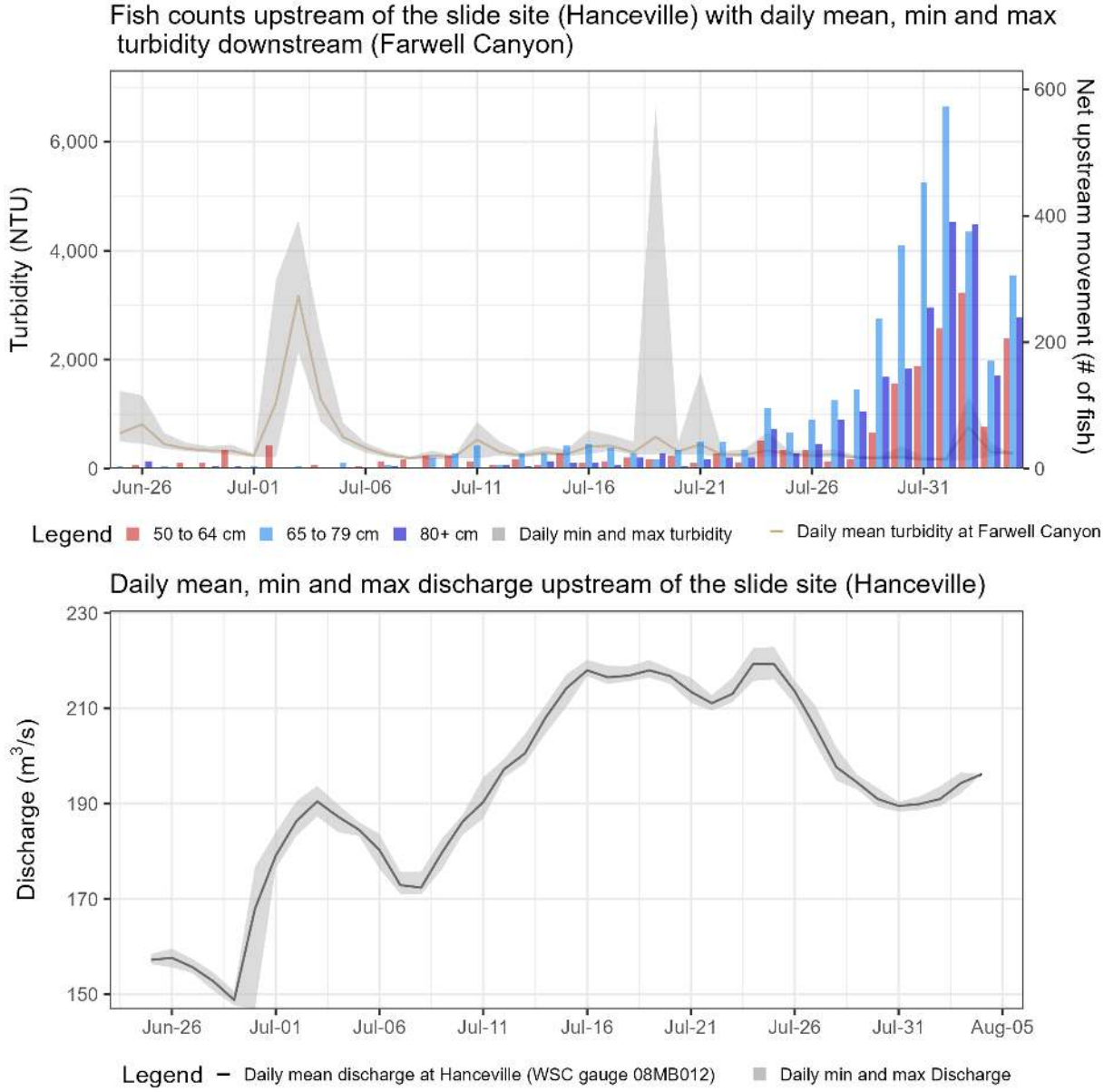
Figure 2. Hanceville sonar river-left fence maintenance by TNG Sr. Fisheries technician, Gerald William, captured on July 29, 2025 (left). 76 cm wild Chinook Salmon caught from the dipnet platform ~50 m upstream of the Hanceville river-right sonar station, captured July 31, 2025 (right).

Tŝilhqot'in
NATIONAL GOVERNMENT

OFFICE
253 4TH AVE N
WILLIAMS LAKE BC
V2G 4T4

TSILHQOTIN.CA
TEL 250 392 3918
FAX 250 398 5798

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 Aug 04, 2025.



[1] One twenty-minute file was reviewed per hour of sonar operation (as per DFO standards). To estimate total fish passage per hour, the twenty-minute counts were expanded by a factor of three to expand to the full hour. Infilling will be completed in post-season analysis.

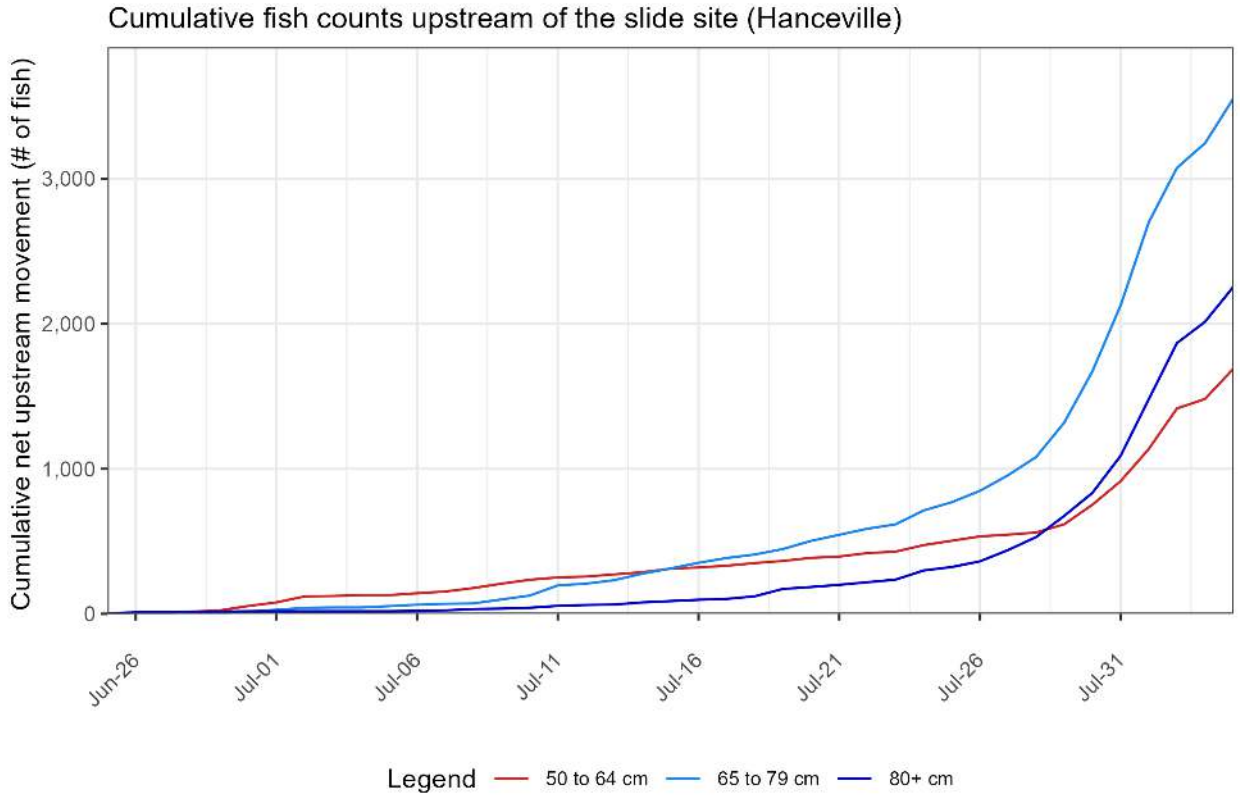
[2] Mixed salmon separated by size (50 to 64 cm) and (65 to 79 cm), and presumed Chinook (80+ cm), as defined by the Department of Fisheries and Oceans (DFO).

Tŝilhqot'in
NATIONAL GOVERNMENT

OFFICE
253 4TH AVE N
WILLIAMS LAKE BC
V2G 4T4

TSILHQOTIN.CA
TEL 250 392 3918
FAX 250 398 5798

Figure 4. **Expanded[3] cumulative daily counts of salmon[4] movement past the Hanceville sonar upstream of the slide site from June 24, 2025 to Aug 04, 2025.**



[3] One twenty-minute file was reviewed per hour of sonar operation (as per DFO standards). To estimate total fish passage per hour, the twenty-minute counts were expanded by a factor of three to expand to the full hour. Infilling will be completed in post-season analysis.

[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).

OFFICE
253 4TH AVE N
WILLIAMS LAKE BC
V2G 4T4

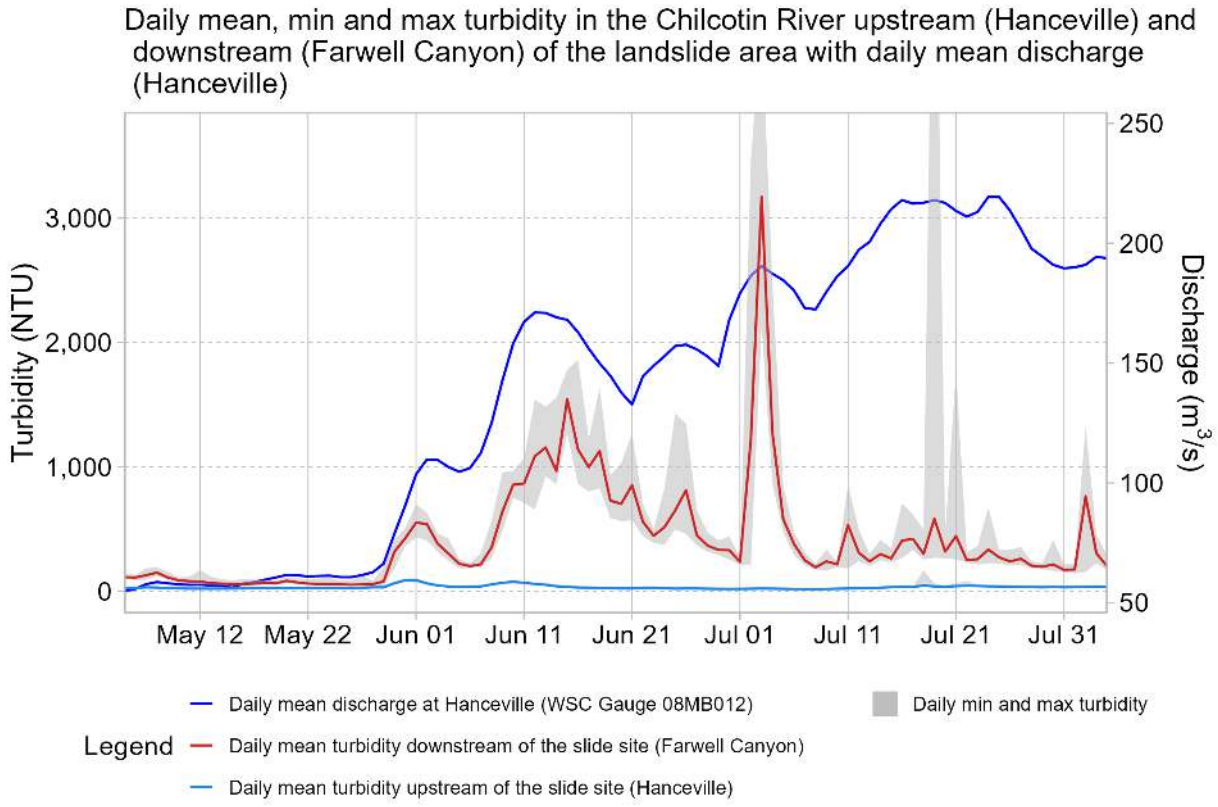
TSILHQOTIN.CA
TEL 250 392 3918
FAX 250 398 5798

3. RIVER CONDITIONS UPDATE

3.1. Chilcotin River Turbidity and Flow

During the week of July 29 to August 04, 2025, discharge in the Chilcotin River upstream of the slide site (Hanceville) ranged from 186 m^3/s to 194 m^3/s (mean = 192 m^3/s) (Figure 5). Turbidity ranged from 29 NTU to 49 NTU at Hanceville, with an overall mean of 34 NTU. Downstream of the slide site (Farwell Canyon) turbidity was higher, ranging from 142 NTU to 1,331 NTU, with an overall mean of 289 NTU. Daily mean turbidity downstream of the slide site (Farwell Canyon) peaked at 764 NTU on August 02, 2025 (up from a daily mean of 175 NTU on August 1). Field crews at Hanceville noted rainfall events and increasing discharge at the end of the week. The differences in turbidity upstream and downstream of the Farwell Canyon slide site can be seen by differences in river colour in recent satellite imagery (Figure 6). Field crews in the area observed heavy localized rainfall events this week.

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 Aug 04, 2025.



OFFICE
253 4TH AVE N
WILLIAMS LAKE BC
V2G 4T4

TSILHQOTIN.CA
TEL 250 392 3918
FAX 250 398 5798

Figure 6. **Satellite image of Chilcotin River upstream (left) and downstream (right) of the Farwell Canyon slide site on August 02, 2025 (Copernicus 2025).**

3.2. Fraser River Turbidity and Flow

During the week of July 29 to August 04, 2025, turbidity upstream of the Chilcotin-Fraser confluence (Sheep Creek) ranged from 32 NTU to 42 NTU, with an overall mean of 36 NTU (Figure 7). Turbidity downstream of the confluence (Gang Ranch) ranged from 55 NTU to 1,120 NTU (mean = 83 NTU). Rainfall events and Chilcotin River input likely both contributed to the period of elevated turbidity downstream of the confluence (Gang Ranch) from August 01 to 03, 2025. The differences in turbidity upstream and downstream of the confluence of the Chilcotin and Fraser rivers can be seen by differences in river colour in the recent satellite imagery from the junction (Figure 8).

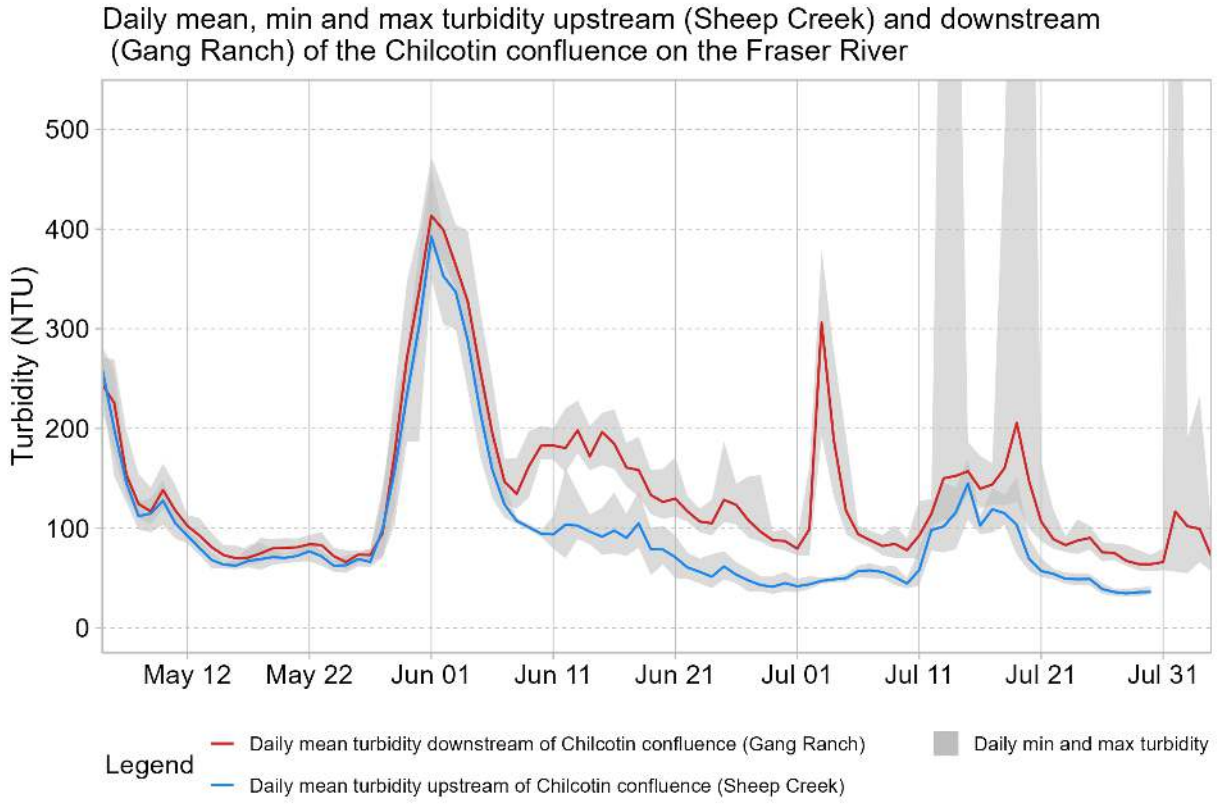
Both Fraser River turbidity stations have been dewatered since July 29 due to decreasing water levels. Turbidity data at Gang Ranch from July 29 onwards has been estimated from data collected by NHC at Big Bar. No corrections have been applied to this data apart from a 5-hour offset to account for river distance. Field crews are servicing both Fraser River stations this week to redeploy the sensors in water.

Tŝilhqot'in
NATIONAL GOVERNMENT

OFFICE
253 4TH AVE N
WILLIAMS LAKE BC
V2G 4T4

TSILHQOTIN.CA
TEL 250 392 3918
FAX 250 398 5798

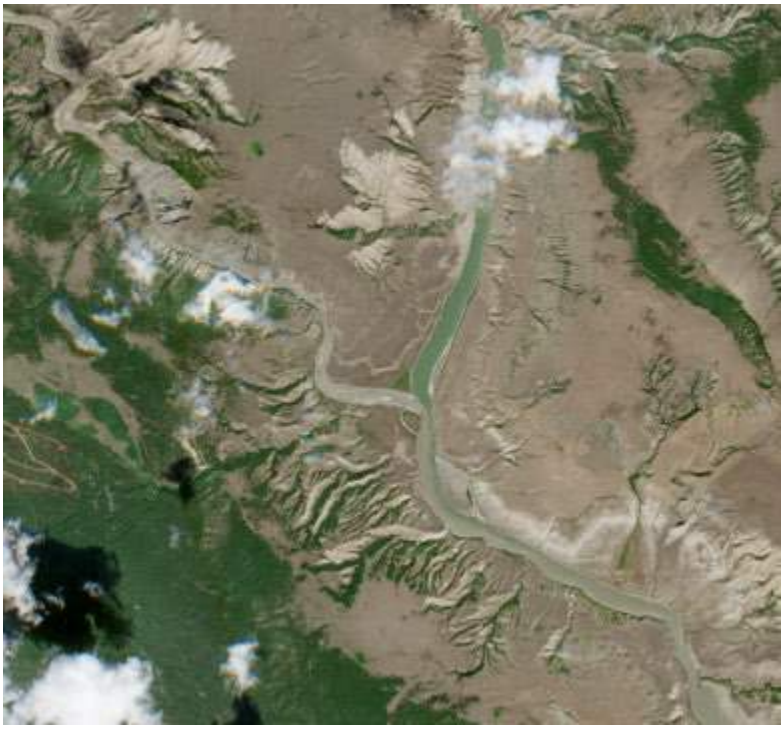
Figure 7. **Turbidity in the Fraser upstream of the Chilcotin confluence (Sheep Creek) and downstream of the confluence (Gang Ranch) from May 01 to Aug 04, 2025.**



OFFICE
253 4TH AVE N
WILLIAMS LAKE BC
V2G 4T4

TSILHQOTIN.CA
TEL 250 392 3918
FAX 250 398 5798

Figure 8. **Satellite image of the Chilcotin River at confluence with Fraser River on August 02, 2025 (Copernicus 2025).**



Disclaimer:

The values and plots presented in this summary should be considered provisional until Ecofish Research Ltd. (Ecofish) and Water Survey of Canada (WSC) perform standard QA/QC procedures, respectively. Data are subject to change post-season. The material in this memorandum reflects the best judgement of Tŝilhqot'in National Government (TNG) in light of the information available at the time of preparation. Any use which a third party makes of this memorandum, or any reliance on or decisions made based on it, is the responsibility of such third parties. TNG and Ecofish accept no responsibility for damages, if any, suffered by any third party as a result of decisions or actions based on this memorandum. This memorandum is a controlled document. Any reproductions of this memorandum are uncontrolled and may not be the most recent revision.