



TNG FISHERIES

The latest information important to T̓silhqot̓in fish and fishing activities

The TNG Fisheries Team has been all-hands-on-deck with our regular in-season operations and field programs, now with an additional key priority focus on assessment and response for the T̓silhqox (Chilcotin River) landslide.

T̓silhqox Landslide:

A major landslide occurred on the T̓silhqox (Chilcotin River) the night of July 30. Increased sediment, debris, and flows to the T̓silhqox and Fraser Rivers continue to dramatically impact this year's returning sockeye and Chinook populations and their ability to successfully pass through the landslide area to their spawning grounds.

Fishery Closure:

In response to the landslide, the T̓silhqot̓in Council of Chiefs issued a **fishery closure notice** on Aug 8 asking that members do not fish for Jaš and Ts'emān anywhere in T̓silhqox, Chežqox, or Dasiqox (Chilcotin, Chilko, or Taseko) waters for the duration of the 2024 season to aid in the protection and recovery of salmon impacted by the slide, as all salmon populations returning to T̓silhqot̓in Territory are in a state of **extreme conservation concern** due to the slide.



TNG-led Salmon Emergency Task Force:

TNG rapidly formed a technical tripartite Salmon Emergency Task Force to assess salmon impacts. The task force includes experts from the TNG Fisheries Department, Fisheries and Oceans Canada (DFO), the Province of BC, the Upper Fraser Fisheries Conservation Alliance (UFFCA), and several external technical experts. Members were selected based on their high level of expertise and experience as members of the Big Bar landslide response process, which began in 2019.

The task force is sharing regular situation reports, which are posted on the TNG website at www.tsilhqotin.ca/our-territory/fisheries/communications and on the TNG Facebook page.

[CLICK HERE FOR THE AUG 8 FISHERY CLOSURE NOTICE](#)

What information are we collecting, and why?

The task force is working to address the main questions:

- **Will salmon stocks be able to pass through the slide area successfully to return to their spawning grounds this year, as river conditions change?**
- **Is human intervention needed to support passage for stocks that may be critically impacted, and if so, what interventions would be the most appropriate?**

Conditions at the slide continue to change quickly from day to day. We are collecting critical information on salmon migration timing and conditions to assess landslide impacts and inform decision making for potential mitigation/intervention options. Options being considered include emergency conservation enhancement (hatchery) activities to support severely impacted salmon populations, and possible trap and transport operations (physically moving salmon past the slide) pending improved stability and safety at key access points.

It's important to note that mitigation/intervention actions aim to minimize the damage, but can't fully solve the problem. Decisions will need to be made quickly, as we're up against tight timelines. To be prepared to take swift action, we've rapidly deployed monitoring systems to learn about multiple interacting factors including:

- salmon migration timing and when they're expected to reach the slide;
- time/level of exposure to turbid (muddy/silty) water conditions;
- hydraulic conditions (obstacles, flows, other hazards) in the river;
- river temperatures during migration, etc.

These factors impact how quickly salmon (particularly Ts'eman) will deplete their energy reserves.

Ideally, we hope fish will be able to migrate past the slide on their own — a key lesson from Big Bar is to avoid intervention unless absolutely necessary. Salmon are incredibly strong and resilient, even in extreme conditions. Our objective is to collect as much information as possible, fully assess and analyze all available information, and be ready to take action if and when considered critically needed.

Landslide response actions to date:

SONAR monitoring:

- **New** fish passage SONAR installed above the slide site (at Hanceville) Aug 8 to detect fish passage. The team is on site daily; results are reported in near-real time.
- TNG has SONAR monitoring in the **Little Chilcotin and Chilko systems** (TNG/DFO partnerships) and the **Taseko system** (TNG-led); these programs existed prior to the slide.
- The task force is working with DFO to re-install a SONAR on the **Fraser River at Churn Creek** to monitor salmon migration between Big Bar and the Tsilhqox (current data gap) to help determine if migration in the Fraser itself is delayed due to the slide.

Cameras, wifi, and all-in-one weather station installed for 24-hour eyes on the site;

Real-time hydrometrics (water levels and flows);

Turbidity monitoring sensors installed at 5 key locations from above the slide lake to the downstream Fraser River at Big Bar:

- sites were selected to evaluate the turbidity impact on salmon throughout their migration;
- note: fish do not move if turbidity levels are above a certain threshold; turbidity monitoring upstream and downstream of the slide will help determine when fish movement may be expected.

Drone photogrammetry (extracting 3D information from photographs) to assess site conditions; **LiDAR drone flights** are scheduled for this week.

Emergency works planning to assess safety/feasibility for slide site access;

Ongoing **terrain stability monitoring** at Farwell Canyon:

- mitigation measures not currently possible due to site instability and safety concerns).
- rain, increased flows from snow melt, etc. could trigger further instability.

See map on page 5

Current information:

- All key monitoring systems are in place (or planned/in process) to address key technical questions and we are now in monitoring and analysis mode.
- Fish are not currently passing through the slide area. Water flow (how much water and how fast it is flowing) is at a level that salmon are expected to be able to pass, so fish are not physically “blocked”, but water has high turbidity (particles in the water), and with other factors, is likely causing fish to not be able to pass at this time.
- We know that Chilko Ts’eman are pooling in the middle Fraser, waiting for an opportunity to pass as conditions change.
- We have learned from the Big Bar landslide that Chilko Ts’eman can wait for a surprisingly long period below the slide and still make it up to their spawning grounds, so TNG is asking that DFO and all fisheries on the Chilko Ts’eman migration pathway (marine and Fraser River below the Tâilhqox [Chilcotin River] junction) make every effort to remove any pressure/impact on Chilko Ts’eman and support their return to their spawning grounds.

Status of slide impacts on Tâilhqot’in salmon populations:

- Since the slide occurred, only approx. 90 Jaš and 100 Ts’eman have been detected by the fish passage SONAR past the slide site. This indicates delay/obstruction, as thousands of Chilko sockeye would be expected to be moving through at this time. Monitoring is ongoing.

Taseko Ts’eman:

- **Highest conservation concern**; severe impacts are likely due to their migration timing during the slide period (late July through early Aug).
- This is a key **critically endangered stock at high risk of extinction**. Emergency enhancement was planned prior to the slide.
- Some had reached their spawning system in the Taseko before the slide (a few were detected by the Taseko SONAR in late July).

Chilko Ts’eman:

- **Critical conservation concern**, as most are still downstream of the slide.
- The peak of the return is expected at the slide **Aug 25–26** based on current information from ocean and lower Fraser test fisheries, but only approx. 500 have been detected by SONAR to date.
- Already a record low predicted ocean return in 2024 – only around 120,000 fish.

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TNG FISHERIES TEAM

RANDY BILLYBOY
Fisheries Manager

Contact for questions:
rbillyboy@tsilhqotin.ca
Tel: 250-392-3918

MICHELLE TUNG
Fisheries Strategy Lead

LEONARD ENGLISH
Fisheries Coordinator

WINSTON BAMBRICK
Jr. Hatchery Manager

GERALD WILLIAM
Sr. Fisheries Technician

HAYDEN GRINDER
Fisheries Technician

PETE NICKLIN
Biologist

ANDREA STERLING
Biologist

AIMEE ARSENAULT
Communications

Status of slide impacts on T̓silhqot̓'in salmon populations (continued):

Chilko Ja̓s:

- May experience **less severe impacts** based on their timing (late July) – a significant portion passed before the slide. Information is still being collected for a more thorough assessment.

Upper Chilcotin Ja̓s:

- **Good news:** Early timed Upper Chilcotin Chinook reached their spawning grounds prior to the slide.
- This is a key **critically endangered stock at high risk of extinction**; emergency enhancement was planned prior to the slide (brood stock collection is complete).

Lower/Little Chilcotin Ja̓s:

- Initial analysis indicates most made it to their spawning system prior to the slide; there are approx. 1000 Ja̓s in the system now.

Elkin Creek Chinook (Taseko system):

- The population is typically in the range of 100–400 fish with later timing (like Chilko Chinook).
- They could still be **severely impacted** by the slide due to the extremely small population size; information is still being collected for a more thorough assessment.
- Emergency enhancement is being considered but has not been confirmed.

Others:

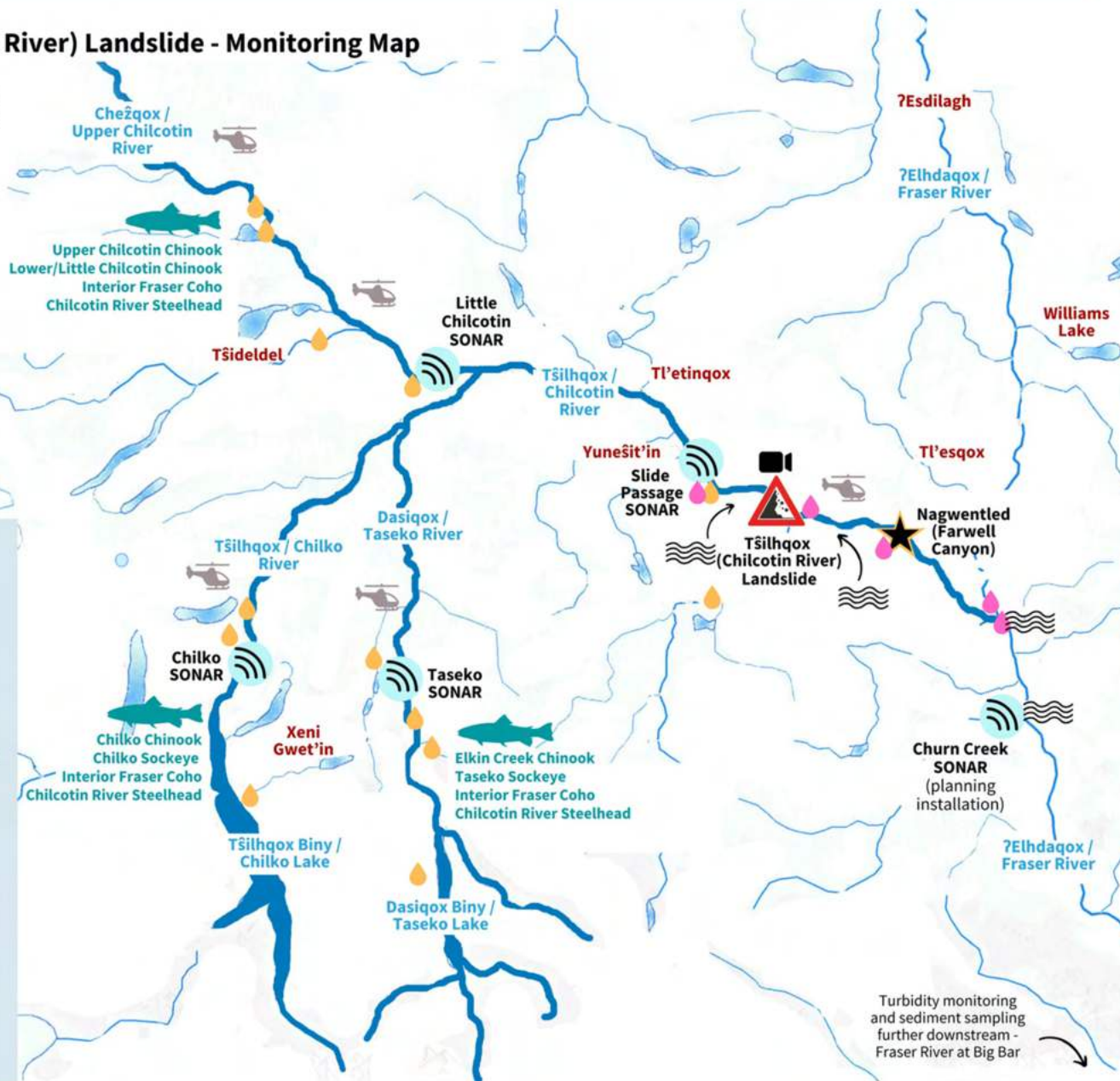
- Interior Fraser coho and critically endangered Chilcotin Tislagh (steelhead) are expected to reach T̓silhqot̓'in Territory in the next few weeks (September).

Continued call to protect Chilko Ts'eman downstream of the slide:

On Aug 9, the T̓silhqot̓'in Nation Council of Chiefs [issued a statement](#) requesting support from downstream First Nations in taking all precautionary measures possible to protect and conserve salmon bound for T̓silhqot̓'in Territory, which are in a state of extreme conservation concern. They asked communities to cease any fisheries that may impact these returning fish (i.e., fisheries along the migration route through the marine area and Fraser River downstream of the Chilcotin River) until the impacts of the landslide are fully understood. This followed an [Aug 6 statement](#) calling on all levels of government, the Pacific Salmon Commission, and other Nations and States (particularly Alaskan commercial fisheries that impact Fraser salmon) to immediately cease all fisheries that may impact T̓silhqot̓'in-bound salmon.

Chilko Ts'eman are pooling in the middle Fraser, waiting for an opportunity to pass as conditions change. **It is more important than ever to protect those fish** and refrain from impacting them. The priority is to maximize the number of fish that can reach their spawning grounds, maximize their spawning success, and support their recovery and long-term sustainability.

T̓silhqox (Chilcotin River) Landslide - Monitoring Map



LEGEND

- SONAR
- Aerial/helicopter assessment
- Camera
- Turbidity monitoring
- Fish populations/spawning system
- Sediment sampling
- TNG aquatic habitat monitoring
- Landslide
- Nagwentled (Farwell Canyon)



TNG FISHERIES WEEKLY BULLETINS

For weekly updates on the status of T̓silhqot'in salmon stocks, fisheries, and TNG Fisheries Department activities, please see our weekly fisheries bulletins, along with more information about the TNG Fisheries Program, at www.tsilhqotin.ca/our-territory/fisheries/communications and on the TNG Facebook page.

For questions please contact TNG Fisheries Manager Randy Billyboy: rbillyboy@tsilhqotin.ca / 250-392-3918