Fraser River Environmental Watch Report

Sep 07, 2026

Ten-day daily forecasts of lower Fraser River temperature and flow conditions as well as current conditions throughout the Fraser basin are updated bi-weekly from roughly late-June until mid-August. These short-range forecasts are generated using river temperature and river flow forecast models (Hague and Patterson 2014).

The latest research on Pacific salmon freshwater migration suggests there are population-specific differences in temperature and flow tolerance thresholds (Eliason et al. 2011). These differences likely relate back to the variability in the average river environmental conditions experienced by salmon beginning their river migration at different times of the year and along different paths (Farrell et al. 2008). Despite these differences, there are also species-wide thresholds that will result in migration difficulties for most populations of Fraser River sockeye salmon. We provide species-level thresholds as a guide to interpreting the potential effect of current and forecasted river temperature and flow conditions on returning salmon. However, in general, fish historically returning to the Fraser River in the mid-summer will be more tolerant of higher temperatures than those fish returning in the early or late summer or early fall.

Current Temperatures

September 6, 2026	Daily Mean	Historic Mean	Year Range
Stuart River @ Fort St. James	17.0	15.8	2000-2025
Stellako River @ Glenannan	17.2	16.6	2011-2025
Nautley River @ Fort Fraser	17.3	16.1	2007-2025
Nechako River @ Vanderhoof	16.9	16.2	2000-2025
Nechako River @ Isle Pierre	17.2	16.3	2006-2025

Bowron River @ Box Canyon	14.7	14.4	2019-2025
Fraser River @ Shelley	13.7	12.5	1994-2025
Quesnel River @ Quesnel	17.4	16.3	2000-2025
Fraser River @ Marguerite	16.3	15.8	2015-2025
Chilcotin River @ Hanceville	13.1	14.6	2019-2025
Fraser River @ Texas Creek	16.5	15.8	2006-2025
North Thompson River @ McLure	14.8	14.3	2006-2025
South Thompson River @ Chase	19.1	18.7	1994-2025
Thompson River @ Ashcroft	18.4	17.9	1995-2025
Fraser River @ Qualark	17.6	16.0	1950-2025

**Nechako R @ Isle Pierre water temperature was calculated using a mixing model*

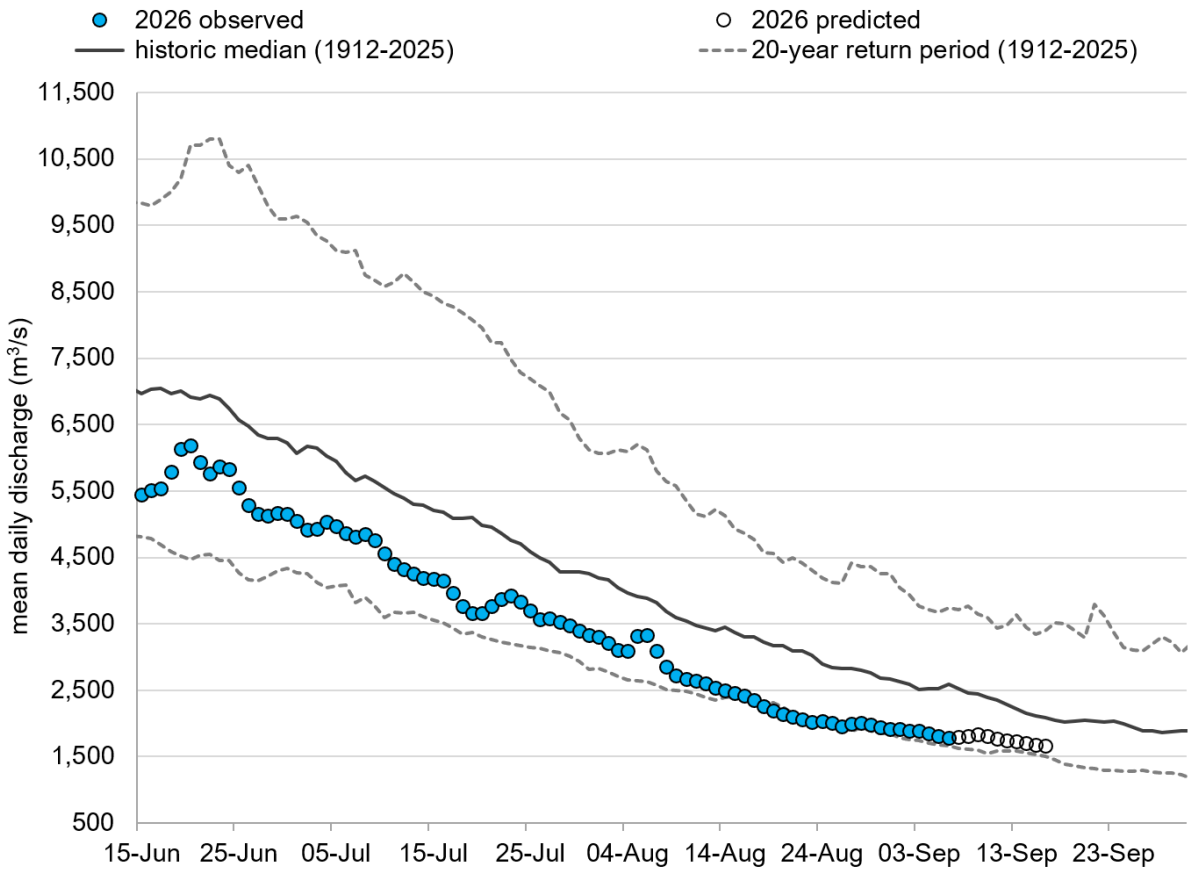
Fraser River Discharge at Hope

Critical levels for fish passage through lower Fraser Canyon:

7000 cms - Early signs of physiological stress evident

8000 cms - Difficultly in migration delaying migration time.

9000 cms - Barrier to migration through Hell's Gate.



Fraser River Water Temperatures at Qualark

18°C - Decreased swimming performance
19°C - Early signs of physiological stress and slow migration
20°C - Associated with high pre-spawn mortality and disease
21°C - Chronic exposure can lead to severe stress and early mortality.

