

DUNES

During 2007, high river discharges flattened the “dunes” in the Upper Nechako River. The dunes are formed by spawning Chinook salmon when they make their redds. NFCP helicopter observations during 2008 indicated that the dunes are already being re-established by Chinook spawners.



Chinook salmon.

WHAT'S NEXT?

NFCP activities are guided by a five-year plan covering the period between 2007 – 2012. The plan is available at www.nfcp.org.

Planned projects for 2009 include:

- Annual Water Allocation (AWA).
- Summer Temperature Management Program (STMP).
- Adult Chinook salmon count between September and early October.
- Measurements of the average time adult chinook spend at redd sites.
- Temperature data collection from the fall of 2009 through the duration of the 2010 Fry Emergence program.
- Data collection on age distribution, sex ratio, size, fecundity, and egg retention of adult Chinook salmon in the Nechako River.
- Stream habitat structure inspections.

**REPORTS FOR NFCP PROJECTS ARE
AVAILABLE AT**

WWW.NFCP.ORG

**NECHAKO FISHERIES CONSERVATION PROGRAM
PO BOX 2551, VANDERHOOF, BC, V0J 3A0**

Nechako Fisheries Conservation Program

The Nechako Fisheries Conservation Program (NFCP) was formed to ensure the effective implementation of the 1987 Settlement Agreement between Alcan, Fisheries and Oceans Canada and the BC Ministry of Environment. The objective of the NFCP is the conservation of salmon stocks in the Nechako River. To that end, since 1987, the NFCP has monitored Chinook salmon and their habitats and has also managed water discharges from the Nechako Reservoir at Skins Lake Spillway.

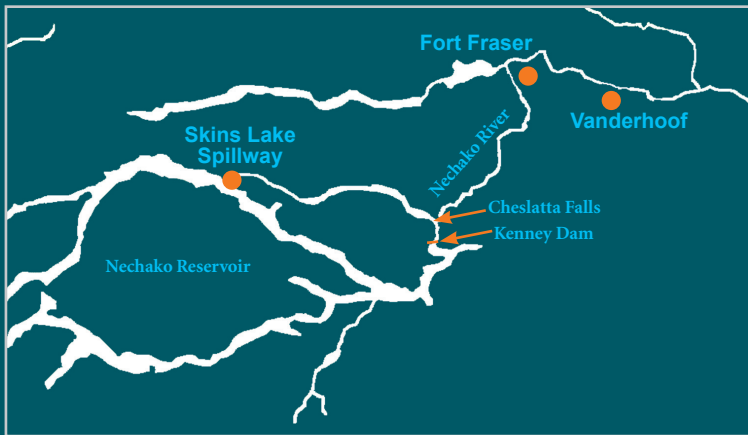
Biological Data Summary 2008



www.nfcp.org

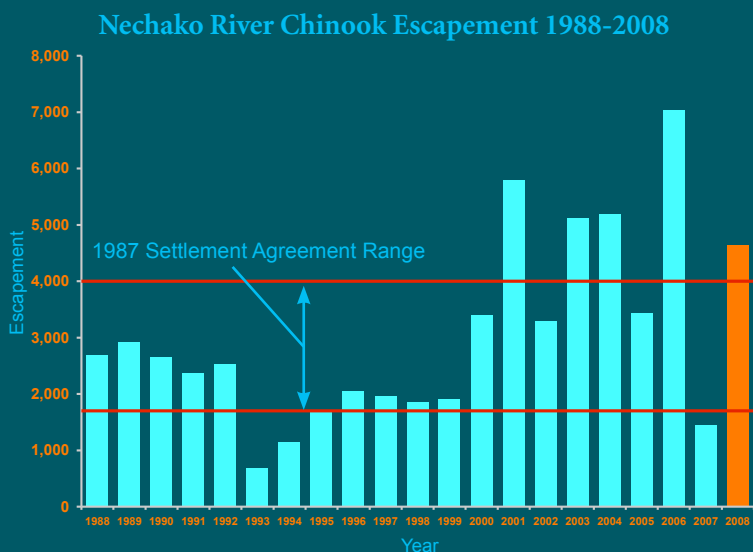
CHINOOK MONITORING

The Settlement Agreement set out a Conservation Goal of a range of between 1,700 to 4,000 chinook spawners in the Nechako River. Chinook spawn in the mainstem of the Nechako River between Vanderhoof and Cheslatta Falls, generally with greatest concentrations within 20 km of Cheslatta Falls, typically between August 25 and October 8. The eggs incubate in the river gravel until they hatch in December. Once hatched the young fish are known as alevins and they remain in the gravel until March of the following year.



Nechako Reservoir and Nechako River.

During 2008, DFO test fishing in the Lower Fraser River indicated a depressed return of Fraser Chinook populations, likely due to adverse ocean survival conditions. These expected trends were described in a July 17, 2008 press release issued by the NFCP. Contrary to expectations, there was a strong return of Nechako Chinook; the total return was estimated to be 4643 spawners. The reason for the discrepancy between the test fishery and the Nechako return remains unclear.



Sampling of Chinook carcasses has been conducted annually by NFCP to collect biological data on age, size, life history, sex and egg retention. Sampling of two hundred Chinook in 2008 indicated a sex ratio of 1:0.5 females:males, close to the Nechako long-term average of 1:0.61. NFCP also undertakes projects designed to evaluate in-stream habitat quality for eggs and juveniles. These projects are carried out every five to ten years. The next juvenile surveys are planned for 2010.

WATER MANAGEMENT

The NFCP provides direction to Rio Tinto Alcan to ensure effective implementation of the Annual Water Allocation (AWA) and Summer Temperature Management Program (STMP) in accordance with the Settlement Agreement.



Skins Lake Spillway.

The AWA requires a release of 36.8 m³/s of water from Skins Lake Spillway (SLS) over the course of the annual water year (April 1, 2008 to March 31, 2009). Releases from the SLS were an average of 32 m³/s in early April. In late April, spillway discharge was increased to 49 m³/s and held at that level until the STMP began. From the end of the STMP to April 2009, SLS will be managed to achieve an average flow of approximately 32.7 m³/s.

The Summer Temperature Management Program is designed to benefit sockeye salmon migrating through the Nechako River. The objective is to reduce the frequency of high water temperatures (>20°C) at Finmoore, located upstream of the confluence of the Nechako and Stuart Rivers. The summer of 2008 was relatively cool and discharges from the SLS were only increased above the summer base flows (170 m³/s) on two occasions in response to warming trends. The maximum mean daily water temperature, upstream of the Stuart River confluence, was 19.5°C on August 16 and 17.