



*Nechako Environmental
Enhancement Fund*

2023
Annual Report

Report from the Chair

2023 was one of the hottest and driest years ever in B.C. and was a record year for wildfires. Now, more than ever, supporting the health of the watershed is of critical importance. This past year NEEF initiated recruitment of a new public NEEF member, and continued to explore areas for improvements and dispersed over \$1 Million in grant payments to active projects.

This funding supported vital research and stewardship activities in the Nechako watershed including a fish stranding assessment in the Cheslatta River, UNBC Integrated Watershed Research in the Nechako River, and the ongoing recovery of Nechako White Sturgeon through the Nechako White Sturgeon Conservation Centre, operated by the Freshwater Fisheries Society of BC.

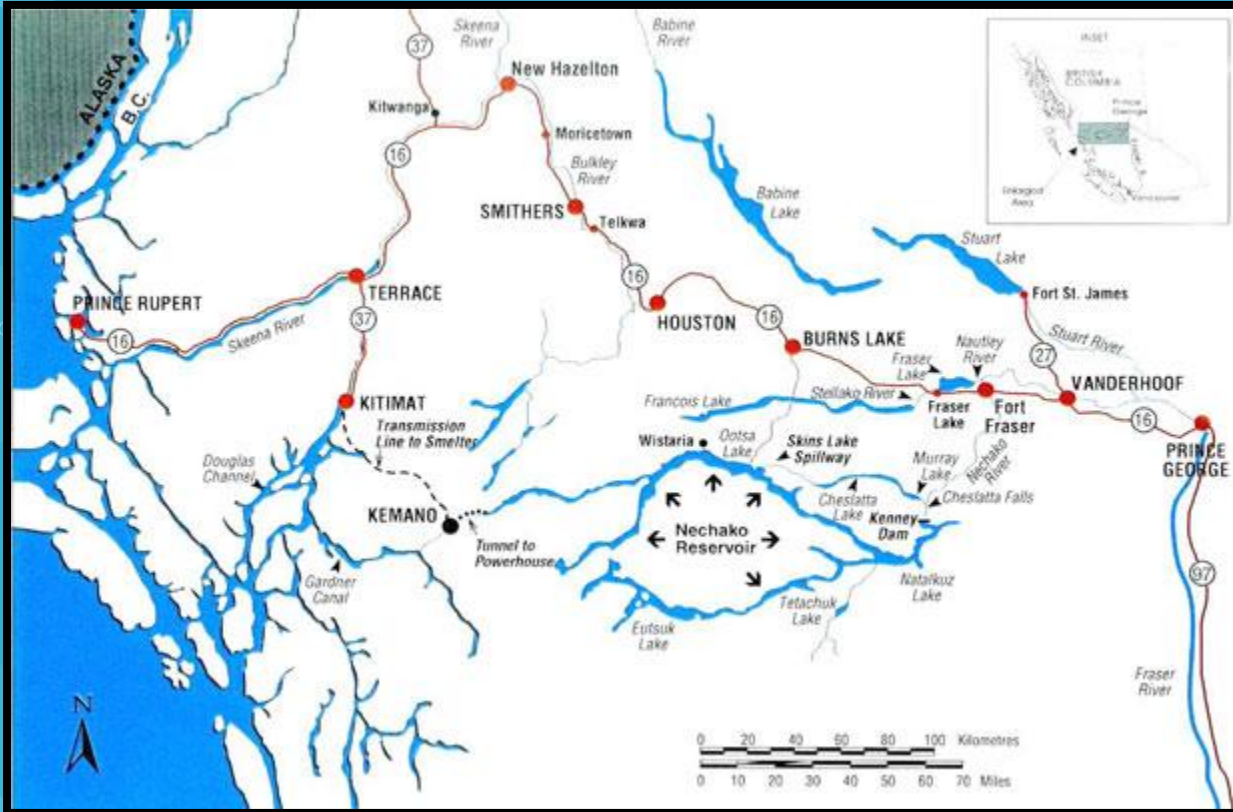
The application process was streamlined this past year in order to provide a fair, consistent, and timely process in accessing available funds for all grant recipients. Applications are now accepted on a deadline basis with one intake period each year (Nov. 1). We hope this change provides more certainty around funding and provides a smoother application process.

Since inception, NEEF has dispersed \$8.3M dollars in support of projects in the Nechako Watershed. As we head into 2024 we are faced with persistent drought conditions in northern BC that continue to negatively affect streamflows and groundwater. We look forward to continuing to support the health and enhancement of the Nechako watershed by funding enhancement, research, and stewardship activities.



Ray Pillipow, Chair

Geographical Scope



The NEEF fund is intended for environmental enhancement of the Nechako watershed, downstream of the Nechako Reservoir.

Objectives of the NEEF Fund

- Options that are related to changes in flow in the Cheslatta River and Nechako River. This includes changes related to Skins Lake Spillway discharges and changes in flow achieved through other enhancement initiatives.
- Options that seek to rehabilitate fish habitat and fish populations in the Cheslatta River and Nechako River.
- Options that promote education and stewardship of water in the Nechako and Cheslatta watersheds.
- Options related to improving how water flow regulation decisions are made in consideration of all environmental aspects.

Active Projects 2023

- Cheslatta River Fish Stranding Assessment
- Integrated Watershed Research In The Nechako River Basin (Phase 3, Year 1)
- Nechako White Sturgeon Conservation Centre (Phase 2, Year 1)
- Nulki-Tachick Lakes Macrophyte Harvesting Program Feasibility Study
- Nechako White Sturgeon Recovery (Year 2)



NEEF Chair Ray Pillipow (right) with UNBC's Integrated Watershed Research Group (L-R) Research Manager Bruno Sobral Dr. Phil Owens, Dr. Margot Parkes, Dr. Stephen Déry and Dr. Eduardo Martins.

Cheslatta River Fish Stranding Assessment

Total NEEF Funding \$153,979

A detailed stranding assessment of high-risk sections along the Cheslatta River connecting Skins Lake and Cheslatta Lake was conducted.

The key objective of the project is to qualitatively evaluate the extent of fish stranding caused by the annual periods of high discharge from the Skins Lake Spillway.

In 2023 all fieldwork for the Cheslatta River stranding surveys was completed.



Sculpin
Cheslatta River Fish Stranding Assessment

Integrated Watershed Research In The Nechako River Basin (Phase 3, Year 1)

Total NEEF Funding \$400,000
over three years

This third phase of research will address key outstanding and emerging issues in the Nechako Watershed. This will include expanded, long-term monitoring of hydrometeorological and aquatic conditions and sediment fluxes, key fish populations, and evaluation frameworks that integrate a range of relevant information, knowledge and perspectives to better understand and respond to interrelated issues in the Nechako Watershed, and contribute to enhanced decision-making at the basin scale.



Dr Leticia Gaspar and Todd French collecting a river sediment sample.

Nechako White Sturgeon Conservation Centre (Phase 2, Year 1)

Total NEEF Funding \$408,495

The Nechako White Sturgeon Conservation Centre (NWSCC) is a facility that is operated by the Freshwater Fisheries Society of BC (FFSBC) and is dedicated to Nechako White Sturgeon recovery.

This facility operates with a three-pronged approach to recovery:

- Conservation Fish Culture as a “Stop-Gap” measure to ensure a genetically diverse population.
- Research/Actions that recover the Nechako White Sturgeon back to a self-sustaining population.
- Education and Outreach.



Sturgeon Eggs



Juvenile Nechako Sturgeon

Nulki-Tachick Lakes Macrophyte Harvesting Program Feasibility Study

Total NEEF Funding \$20,000

In order to address deteriorating water quality and toxic algae in the Nulki and Tachick Lakes, a feasibility study was conducted to determine the viability of a macrophyte harvesting program for Nulki and Tachick Lakes and to develop a restoration plan.

In 2023 all fieldwork was completed with the lab analysis to be completed in 2024.

The outcome of this study will produce a comprehensive report including a recommended harvesting plan and implementation strategy for restoring the water quality in the Nulki-Tachick watershed.



Nulki Lake blue-green algae.

Nechako White Sturgeon Recovery (Year 3)

Total NEEF Funding \$445,000

The Nechako White Sturgeon Recovery Initiative (NWSRI) is an interdisciplinary, collaborative effort that involves multiple recovery partners. Funding provided by NEEF supported key initiatives and allowed a renewed focus on habitat restoration measures.

Restoration of white sturgeon spawning and early rearing habitats is the main focus to restore juvenile recruitment. However, there are still some significant challenges to implementing effective long term habitat restoration in the large river habitats where white sturgeon spawn. Addressing data gaps in our biological understanding of habitat needs during spawning and early life stages is critical to guide habitat recovery efforts. A thorough understanding of the geomorphology of the Nechako River, and in particular the Vanderhoof spawning reach, is also critical to ensure that restoration provides the habitat attributes required for long term recovery. NEEF funding was used to address these research priorities and fill several outstanding knowledge gaps.

This project successfully completed in 2023 and all project reports can be accessed at the NEEF website.



- Experimental plots in the south treatment patches



Larval Release Unit

Availability of Funds

Funds are available on an annual basis until 2050 or longer as follows:

- \$7.4 Million (200,000 per year) is allocated to Cheslatta Watershed Restoration and Stewardship
- \$27.2 Million (\$850,000 per year) is allocated to Nechako Watershed Restoration and Stewardship
- \$6.4 Million (\$200,000 per year) is allocated to Post-Secondary Research
- Option for BC and Rio Tinto to agree to allocate all uncommitted funds to a major project such as building a spillway at Kenney Dam.



Grant Funding Application Process

November 1

Annual
Application
Deadline

March 1

Applicants
notified of
funding decision

March-April

Funding Agreements developed
and signed.

For multi-year projects, funds
must be utilized and matched
on a calendar year.

2023 NEEF Society Board of Directors



Ray Pillipow, Province of BC
Chair



Andy Lecuyer, Rio Tinto



James Jacklin, Interim Director

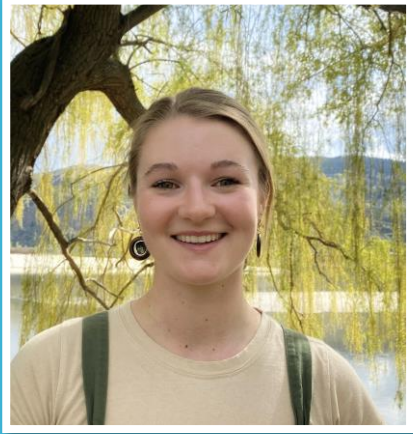
The NEEF Society was established in 2015 to act as an agent for the NEEF Management Committee which includes reviewing and making decisions on proposals, entering into agreements with grant recipients and forwarding funds. The NEEF Society is governed by a Board of Directors two of which are the NEEF MC members.

Incoming Director

The NEEF Society welcomes Jordan Cranmer to the Board.

Jordan Cranmer grew up and lives on the traditional territory of the Saik'uz First Nation and has a vested interest in the Nechako watershed. She is a recent graduate from the University of Northern British Columbia with a degree in Community, Population, and Environmental Health. Jordan is an alumni member of the Learning from Eco-social Approaches to Public Health (LEAPH) Laboratory and the Environment, Community Health Observatory Network and sits on the Integris Community Investment Grant council. Her professional affiliations span community development, youth engagement, sturgeon conservation and research, place-based education, and community outreach, focusing on community and environmental health and well-being.

Passionate about the intersection of ecological approaches to health and the intertwining of environmental and community well-being, Jordan brings a unique perspective to her work.



Jordan Cranmer,
Independent Public Member

Expenditures since Inception at December 31, 2023

Description	Detail	Total Commitment	Amount Paid to Date	Amount of Commitment Remaining	Total Remaining Uncommitted Funds
	Nechako Environmental Enhancement Fund	\$50,000,000			
NEEF Administration	Work of the Nechako Watershed Council. NEEF MC process and 2012 Report. Admin cost for legal work etc. for Society establishment. Society Administration expenses.	\$1,620,646	\$1,598,050.65	\$22,595.35	
Freshwater Fisheries Society of BC	White Sturgeon Conservation Fish Culture Program	\$4,363,454	\$4,257,962.11	\$105,491.89	
Nechako White Sturgeon Recovery Initiative	Biochronology of Wild-Recruited Nechako White Sturgeon	\$10,000	\$10,000	\$0	
University of Northern BC	Integrated Watershed Research in the Nechako River Basin	\$500,000	\$492,052	\$0 ⁵	
Nechako Environment and Water Stewardship Society	Proposal Development	\$3,500	\$3,500	\$0	
Nechako Environment and Water Stewardship Society	Nechako River Sustainability.	\$1,000,000	\$329,718	\$0 ⁶	
Cheslatta Carrier Nation	Cheslatta LiDAR Project	\$200,000	\$200,000	\$0	

⁵ Funds in the amount of \$7,948.00 went unused by the project and have been rolled back into the NEEF Fund and are included in the line-item Nechako Environmental Enhancement Fund Balance.

⁶ Contract was cancelled at the request of the recipient. Unused grant funds in the amount of \$670,282 have been rolled back into the NEEF Fund and are included in the line-item Nechako Environmental Enhancement Fund Balance.

University of Northern BC	Phase 2 Integrated Watershed Research in the Nechako River Basin	\$499,950	\$499,950	\$0	
Cheslatta Carrier Nation	Umam (Pygmy Whitefish) Surveys	\$46,236	\$45,435	\$0 ⁷	
Ministry of Environment and Climate Change Strategy	Nechako White Sturgeon Recovery Project	\$445,000	\$445,000	\$0	
Freshwater Fisheries Society of BC	Nechako White Sturgeon Conservation Centre	\$3,679,118	\$182,542.31	\$3,496,575.69	
Nulki-Tachik Stewardship Society	Macrophyte Harvesting Program Feasibility Study	\$20,000	\$10,000	\$10,000	
University of Northern BC	Phase 3 Integrated Watershed Research in the Nechako River Basin	\$400,000	\$100,000	\$300,000	
Noot'senay Consulting	Cheslatta River Fish Stranding	\$153,979	\$76,989.50	\$76,989.50	
TOTALS		\$12,941,883	\$8,251,199.57	\$4,011,659.43	
Nechako Environmental Enhancement Fund Balance					\$37,058,167

⁷ Project completed under budget and \$800 of the funding was unused.