



Sheep Creek Nutrient Addition Program

Melissa Fiel de Sousa

Dudley Coulter



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About the Program



- Originally developed and implemented by the Salmo River Streamkeepers Society (SWSS); transferred to BC Hydro in 2018 as part of our Fisheries Act Authorization.
- Many freshwater streams in B.C., including Sheep Creek, are naturally poor in available nutrients and have naturally low productivity.
- Nutrient addition is a proven method to effectively enhance naturally poor freshwater ecosystems and help native fish populations.



Community Engagement




- Local resident concerns about water quality in Sheep Creek in 2024
- BC Hydro has taken this matter very seriously
- Third-party water testing results were provided to the community in August 2024

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ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

REPORTED TO	Guy Martel (BC Hydro - Burnaby) 6911 Southpoint Drive A02 Burnaby, BC V3N 4X8	ONLINE ORDER#	501731
SITE INFO	Online Order #501731	RECEIVED / TEMP	2024-07-05 09:23 / 15.8°C
CARO WO#	24F3403	REPORTED	2024-07-12

Introduction:
CARO Analytical Services is a testing laboratory full of smart, healthier place. Through our clients' projects we become an engaged team in control efforts. CARO is accredited by the Canadian Association of Environmental Test Laboratories (CAETL) under ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approval.

Big Picture Sidekicks  **We've Got Chemistry**
You know that the sample you collected after snowmelt is silt, digging 5 meters, and racing to get it on a plane, so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (when) is VERY important. We know that too. It's simple. We enjoy working with an engaged team in opportunities to support.

Report Highlights:
The results in this report apply to the samples analyzed in accordance with the **Guidelines for Canadian Drinking Water Quality (Jan 2020)**.
For more information, please visit <http://www.caro.ca/reports/>

BC Hydro
Power smart
August 12, 2024

To Whom It May Concern:

Re: Sheep Creek Nutrient Addition Program

In light of recent concerns expressed about the effects of BC Hydro's nutrient addition program in Sheep Creek, we would like to provide information about the program and the recent water quality analyses that took place in July, which confirms that the water in Sheep Creek meets and exceeds BC Water Quality Guidelines for drinking water.

BENEFITS OF THE SHEEP CREEK NUTRIENT ADDITION PROGRAM

Many freshwater streams in British Columbia, including Sheep Creek, are naturally poor in available nutrients and have naturally low productivity*. These streams have typically relied on natural contributions from fish, the surrounding vegetation, and as erosion during freshet to form the building blocks of the food chain. Without natural nutrient contributions, freshwater ecosystems are typically phosphorus-limited and can also be nitrogen-limited, which has an adverse impact on the native fish that live in these streams.

Nutrient addition is a proven method to effectively enhance naturally poor freshwater ecosystems and help native fish populations. Adding nitrogen and phosphorus is a proven and effective method to enhance nutrient-depressed ecosystems by supplementing algal growth. This occurs in a number of freshwater watersheds across the province, including Arrow Lakes Reservoir, Kootenay Lake, Seymour River, Wabach Reservoir, Alouette Reservoir, and the Seymour, Salmon, and Ash Rivers.

Nutrient addition programs work by adding small quantities of nitrogen and phosphorus to provide better growing conditions for algae. This provides additional food and shelter for insects and other invertebrates, which are then consumed by native fish. The overall outcome of nutrient addition programs is more food and better growing conditions for fish, which helps to ensure a healthy and robust fish population.

PROJECT BACKGROUND

The Sheep Creek nutrient addition program has been running for several years without any incident. The program was originally developed and implemented by the Salmo River Streamkeepers Society (SRSS). The SRSS spent three years studying the effects and benefits of the program before initiating trial nutrient releases in 2004. After several years of successful trials, the project was funded annually through grants from the Fish and Wildlife Compensation Program to enhance Bull Trout populations, which is a species of concern in B.C. The project was transitioned to BC Hydro in 2018 as part of our Fisheries

* BC Hydro can provide references from the scientific literature for similar assertions.
† Please note that this project was on hiatus between 2010 and 2012.

BC Hydro Inc. P.O. Box 9910 Vancouver, B.C. V6B 4X3

Next Steps

- Ongoing community engagement
- Working with Ktunaxa Nation and Salmo Watershed Streamkeepers Society
- Program reimplementation scheduled for June 2026

