

Bridge (Shalalth) – Seton (Lillooet) Capital Investment Update

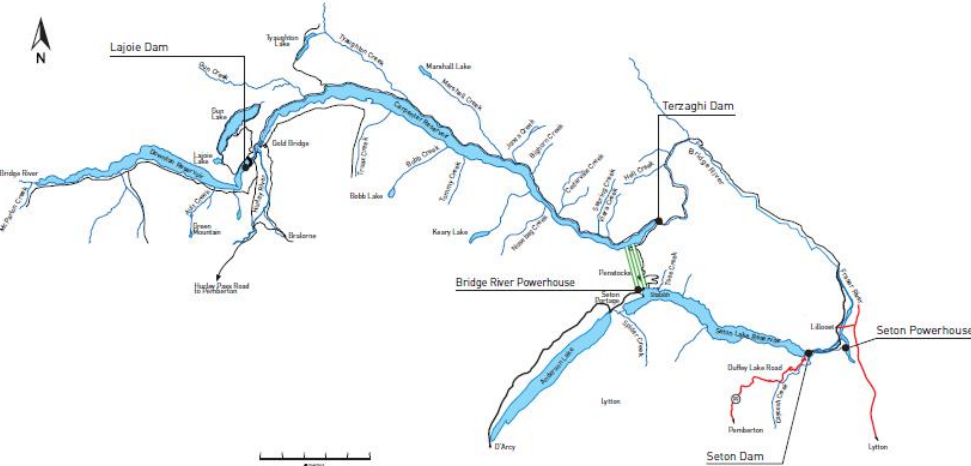
December 2022

Agenda

- Bridge River System Overview
- Capital Plan Update
- Safety
- Workforce
- Accommodation
- Communications

Overview

Bridge River System



Capital Plan Update



Aerial view of Bridge River Generating Station – Unit 1

Bridge River Generating Station – Unit 1

- Units 1-4 – Certificate (CPCN) granted by BCUC in Oct. 2022.
- Request for Proposal for the replacement generators scheduled to close early 2023
- Units 1- 4 Penstock Recoating – planning currently underway, application to BCUC in fall of 2024, targeted completion in 2033
- Penstock Foundation Upgrade – planning underway, completion targeted for 2024

Capital Plan Update



The newly commissioned Unit 7 generator at Bridge 2

Bridge River Generating Station - Unit 2

- Units 7&8 – Unit 7 Generator was fully commissioned Nov. 2022
- Penstock Internal Recoating –work completed June 2022

Capital Plan Update



Crews extracting coring samples in Seton Canal, spring 2022

Seton

- Planning for the Seton Generator Replacement and a possible Seton Hydraulic By-Pass is currently underway, targeted completion is 2027 and 2028

Dam Safety

- Construction was completed this year on the Surge Spill Hazard Mitigation project (Mission Mountain)
- Planning continues for the School Creek (SC) and Town Creek (TC) drainage improvements and SC spoil pile removal. Targeted Project completion in 2025

Capital Plan Update



Aerial view of LaJoie Dam with Downtown Reservoir behind it

Dam Safety - LaJoie

- The LaJoie Dam Improvement Project will address dam safety risks related to aging and seismic vulnerabilities
- The project will require approval from the BC Utilities Commission. Planning to submit application in 2026.
- Construction is targeted to begin in 2027 (pending BCUC approval) with targeted completion in 2032
- Construction will require very low water levels in Downtown Reservoir to enable the work

Capital Plan Update



View from Gun Lake Road, looking at the upstream face of LaJoie Dam during the Downton Reservoir drawdown, April 2022

Dam Safety - LaJoie

Recommended leading alternative: improve dam to full reservoir level

- Maximum Normal Reservoir Level 749.8m
- Addresses existing deterioration and seismic deficiencies
- Extensive upgrades are required including the dam itself and intake tower
- St'at'imc Nation has provided conditional endorsement

Capital Plan Update



LaJoie Dam with Downton Reservoir in the background and a 25 MW powerhouse in the foreground

Dam Safety - LaJoie

Next Steps:

- Advance project planning and evaluate options to improve the dam and intake tower, select the Preferred Alternative
- Incorporate lessons learned from Spring 2022 drawdown in design and construction planning, and advance designs and refine the project cost estimate
- Secure regulatory approval including BCUC - expected in 2026

Capital Plan Update



Crews investigating at the toe of LaJoie Dam during the April 2022 drawdown

Dam Safety - LaJoie

Downton Reservoir Drawdown, April 2022

- Upstream investigations were conducted for approximately 10 days
- Test pitting and concrete sampling
- Monitoring for environmental impacts
- Monitoring for cultural heritage
- Reservoir was lowered to 699m-700m (~10m below normal low levels) for one month
- Levels returned to normal operating ranges within 3 weeks.

Capital Plan Update

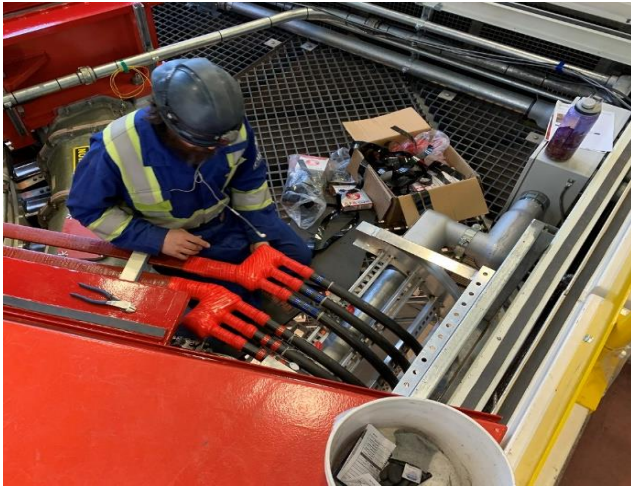


Transformers 7 and 8 under factory testing at the manufacturer's facility

Transmission

- Replacement of Transformer 7 at Bridge River 2 was completed this summer. The unit was energized Nov. 2022
- Additional transformer replacement work is currently underway with targeted completion early 2024
- Preliminary planning is ongoing for upgrade/repair work on an existing transmission line in the region, CPCN application filed July 2021, targeted completion for the project is fall 2026

Safety



- A Safety Management Plan for the region includes all aspects of safety and emergency response such as:
 - Travel
 - Working alone procedures
 - Code of Conduct
 - Evacuation
- One lost time incident reported by a contractor for 2022.

Workforce



- Approximately 40 workers were on site in the Bridge River region this past summer to complete project work
 - The number increased to 50 this fall with the majority of work scheduled to be completed December
- Approximately 60 workers will be needed in the region in 2023 to complete project work
 - Most of the construction is expected to be concentrated between April and September

Accommodation

Forecast

2023 (~60 workers)

- ~30 workers on various projects throughout the region accommodated close to the work sites, mostly at Bridge River and accommodated in Tsal'álh/Seton Portage.
- ~30 workers at the Seton Canal Repair project mostly accommodated in Lillooet

2024 (~120 workers)


- ~120 workers at Bridge River and Seton, mostly accommodated in Tsal'álh/Seton Portage and Lillooet

Access and Accommodation Study



- We are in the early planning stages of this study.
- Will identify worker accommodation and transportation to support future project construction.
- Includes an assessment of accommodations and accessibility from Lillooet to Gold Bridge and Shalalth for the Bridge River system.
- We'll meet with stakeholders at several points in the process.
- Expected completion is 2024.
- Local accommodation is the priority, wherever possible.

Communications



Bridge River newsletter
Projects update—Fall 2021

The upper Bridge River system from the summit of Mount Sloan, Downtown Reservoir, Gun and Lapis Lakes, and Carpenter Reservoir. Photo credit: Tom Appley

We're renewing the Bridge River electricity system which is about 300 kilometers north of Vancouver in the Traditional Territory of the St'at'imc Nation.

The system consists of the La Jole Dam and Powerhouses (Downtown Reservoir), Bridge 1 and 2 Powerhouses (Terzaghi Dam and Carpenter Reservoir), and Seton Dam and Powerhouse (Seton Lake).


We're making a significant investment in these 55 to 70-year-old facilities, whose proximity to the Lower Mainland helps us operate the electrical system more efficiently. This includes several projects in the region.

Seton unit replacement project

This fall, we're in the early planning stages of a unit replacement project at the Seton Generating Station in Lillooet.

In service since 1956, the station's turbine was replaced once before in 1977. Now, we're planning to replace the generator and turbine to ensure the facility continues to operate safely for decades to come.

Seton plays an important role in the Bridge River System that spans from Goldbridge to Lillooet. For decades it has operated at the downstream end of the system in Lillooet generating electricity and serving as a main source of water conveyance for the Bridge River system moving water from Seton Lake and into the Fraser River.



Seton Generating Station

As part of the project, we're planning to install a hydraulic bypass to allow us to continue to move water from Seton Lake and into the Fraser river while work is underway in the station. The bypass will help us to maintain flow commitments in the Water Use Plan and helps us mitigate the risk of impacts to fish.

Engagement for the Seton Unit Replacement project will be ongoing. In the coming months, we'll host a virtual open house with the project team to provide more information on the planned work.

BC Hydro
Power smart

Bridge River newsletter | Fall 2021

We communicate our activities in the Bridge-Seton region in a variety of ways.

- Open houses
- Local ads
- Site Tours
- Bi-annual newsletter
- Project one-pagers
- Delegations to local governments
- www.bchydro.com/bridgeriver

To sign up for the newsletter or to send us questions, email projects@bchydro.com



Questions?