

Bridge River System Capital Project Update

Squamish Lillooet Regional District

December 2023

Bridge River System – Summer Wildfires



Agenda

- Bridge River System Overview
- Capital Plan Update
- First Nations Consultation
- Workforce Forecast Update
- Access and Accommodation Studies
- Communications

Bridge River System



Capital Plan Summary – Seton

Seton Bypass Project



Drone photo of the rock slope along the bypass route with the Seton forebay in the background (July 2023)

- The Seton Dam and Generating Station are at the downstream end of the Bridge River system, playing a critical role in how water is moved
- With the Seton Generating Unit nearing end of life, the need for a bypass was identified
 - A bypass will provide an alternative way to move water around the facility into the Fraser River
 - This will reduce the risk to fish and fish habitat in the Seton River
- This will provide certainty during planned or unplanned unit outages
- Project planning is underway and is subject to BC Utilities Commission (BCUC) approval
- Targeted completion is 2027. Unit replacement schedule is under review

Overview of Seton Bypass Alignment



Capital Plan Summary – Seton



Crews drilling near the outlet of the bypass (Sept. 2023)

Current activities

- Completed this fall:
 - Site investigations including drilling and geophysics along bypass route
 - Field assessments along the bypass route and proposed laydown areas:
 - Environmental assessment and sampling
 - Archeological assessments

Capital Plan Summary – La Joie



Truax mountain overlooking a snow covered La Joie Dam and the intake tower with Downton Reservoir in the foreground

La Joie Dam Improvement Project

Recommended leading alternative: Improve dam to full reservoir level

- The project will address dam safety risks related to ageing and seismic vulnerabilities
- Received conditional endorsement from St'át'imc Authority for the leading alternative
- Subject to British Columbia Utilities Commission (BCUC) review
- Construction is targeted to begin 2027 and targeted completion is 2032
- Construction will require very low water levels in Downton Reservoir to enable the work

Capital Plan Update – La Joie

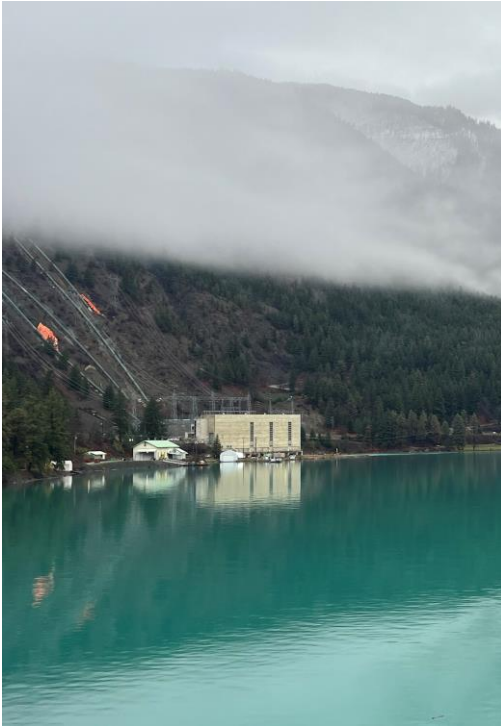


Drilling rig on La Joie Dam during site investigations (September 2023)

Current Activities

- **Completed this fall:**
 - Site investigations at the powerhouse and dam (including geotechnical drilling at the dam)
 - Field studies (environmental, archaeological, etc.)
- **Ongoing**
 - La Joie Access & Accommodation study
 - Design work and environmental studies

Capital Plan Summary – Bridge River 1



Bridge River Generating Station – Unit 1

Bridge 1 Units 1 to 4 Generator Replacement Project

- Built in 1948, Generating Units 1 to 4 require upgrading as they are nearing end of life
- Certificate of Public Convenience and Necessity (CPCN) granted by the British Columbia Utilities Commission (BCUC) October 2022
- Construction is scheduled to begin in 2026
- Targeted completion is July 2030

Current Activities

- Environmental and archeological assessments completed fall 2023

Capital Plan Summary – Bridge River 1



Penstocks running down Mission Mountain to the Bridge 1 powerhouse below with Seton Lake in the background

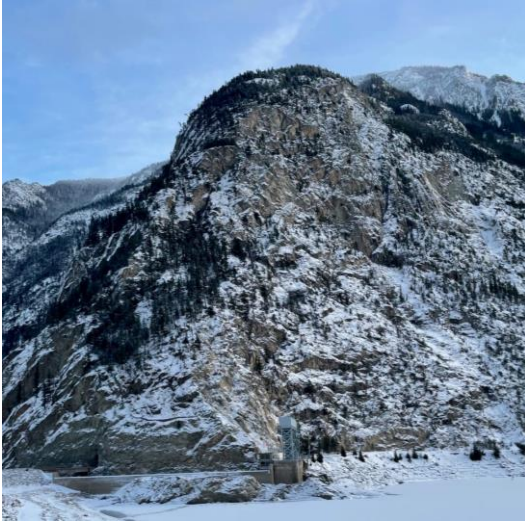
Bridge 1 Units 1-4 Penstock Internal Recoating Project:

- Construction is planned for 2026, targeted completion in 2031

Bridge 1 Penstock Foundation Upgrade Project

- Constructions started in 2021, targeted completion is fall 2024

Capital Plan Summary – Terzaghi



Mission Mountain towering over Terzaghi dam with Carpenter Reservoir blanketed in white

Terzaghi Dam Spillway Chute Access Improvement Project

- Project will make the repair and inspection of the spillway safe for workers
- Construction is planned for 2026, targeted completion in 2027
 - Intermittent road closures will be required along Mission Mountain Road

Terzaghi Dam Low Level Discharge Reliability Project

- The project will improve reliability of the low-level outlet system
- Project is in early planning stages, targeted completion 2030

Capital Plan Summary - Transmission



P'egp'ig'lha Council Guardians and the BC Hydro B RTP team on Seton Ridge looking at proposed work locations during a site visit (September 2023)

Bridge River Transmission Project (B RTP)

- The project is required for upgrades and repair work on an existing transmission line in the region (2L90)
- Environmental site investigations were completed in summer/spring 2023
- Phase one of the archaeological investigation was completed in fall 2023. Phase two is targeted for spring 2024
- Certificate of Public Convenience and Necessity (CPCN) filed with the BC Utilities Commission (BCUC) July 2021
 - An updated application will be filed in fall 2024
- Targeted completion for 2028

Bridge River Transmission Substation – T4 Transformer Replacement Project

- T4 transformer anticipated to be in-service for December 2024

First Nations - Consultation



Field work for the Bridge River Transmission Project

The Bridge River system is located entirely in St'át'imc Nation Territory.

In 2011, St'át'imc, BC Hydro and the Province signed an historic agreement that addressed past impacts and provides a framework for creating a new, more positive, relationship into the future.

As projects move forward, we're collaborating at various levels to better understand and integrate St'át'imc perspectives and interests into our planning, and to work together to identify meaningful economic and employment find opportunities across the projects.

Workforce Forecast Update



Bridge 1 townsite (June 2023)

- ~ 40 workers were on site in the Bridge River region in 2023 for project work, with most of the work completed by December
- ~40 workers will be needed in the region in 2024 to complete project work
- Most of the construction is expected to be concentrated between April and September, 2024
- Workers have been staying at existing facilities in Tsal'ah/Seton Portage.
- No additional accommodations are required for 2024.

Access and Accommodation Studies



BC Hydro Worker Conduct Requirements on display at the Lil'lem Mountain Hotel

- In the Bridge River region we're studying:
 - Access and Transportation
 - Worker accommodation
 - Socio-economic impacts and mitigation options
- This is an important opportunity for local communities, organizations, businesses and the public to better understand how BC Hydro operates in the region and find collaborative solutions
- Phase one of engagement is complete, phase two is underway with public open houses and online survey planned for January, 2024
- Expected study completion by summer 2024

Communications



The Casper Creek wildfire burning in the background of the Bridge 7 power house on Sept. 14th 2023.

Cooperation and coordination on Casper Creek wildfire

I wanted to take a moment to acknowledge the incredible efforts in response to the Casper Creek and Dominion wildfires performed by BC Wildlife Services, Tara's Nation, the Squamish-Lillooet Regional District's protective services, BC Hydro's emergency management team as well as operations and transmission crews on the ground, elected officials and residents.

Thank you to everyone and our thoughts are with you during this time of recovery, Whitney Deane, BC Hydro Community Relations/ Stakeholder Engagement BC Hydro.

We came, you talked, we listened: Bridge River brings enthusiasm to engage in Access & Accommodation studies

A warm welcome from Lillooet and the Upper Bridge River Valley as residents turned out to our open house in June for the Bridge River Capital projects and the Access & Accommodations studies for the area.

The studies are looking at transportation, access to site, worker accommodation, and socio-economic impacts including business opportunities. It's an important opportunity to better understand how we operate in the region and find collaborative solutions.

The person who spotted the need for these studies was Lalole Dam Improvement project manager Zafiro Cacko, who brought on the area's Indigenous Relations lead, Robyn Spencer to help with getting this off the ground.

The following Q&A is edited for brevity.

Whitney Deane: Where did the idea for an access and accommodation study come from?

Zafiro Cacko: Lalole is in a unique location in that it's very remote. We realized there were going to be challenges with accessing the site given the site of the project. We wanted to have a holistic view of the trade-offs of access versus accommodation. It is important to get a full picture view of what is possible to support the project.

WD: When was the moment you knew we needed a study?

ZC: I think it evolved over time. I recognized this was a major challenge and that it was different than most, if not all BC Hydro projects. Having Robyn take over, she's brought in a different aspect to the role where we are really engaging with stakeholders more holistically. I think that's been positive.

What does access and accommodation mean for these studies?

Access: Transporting materials, equipment and people to and from work sites.

Accommodation: Accommodation for workers as well as services and supplies (e.g., site services, food, amenities, etc)



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Questions?