

Seton Unit Replacement Project

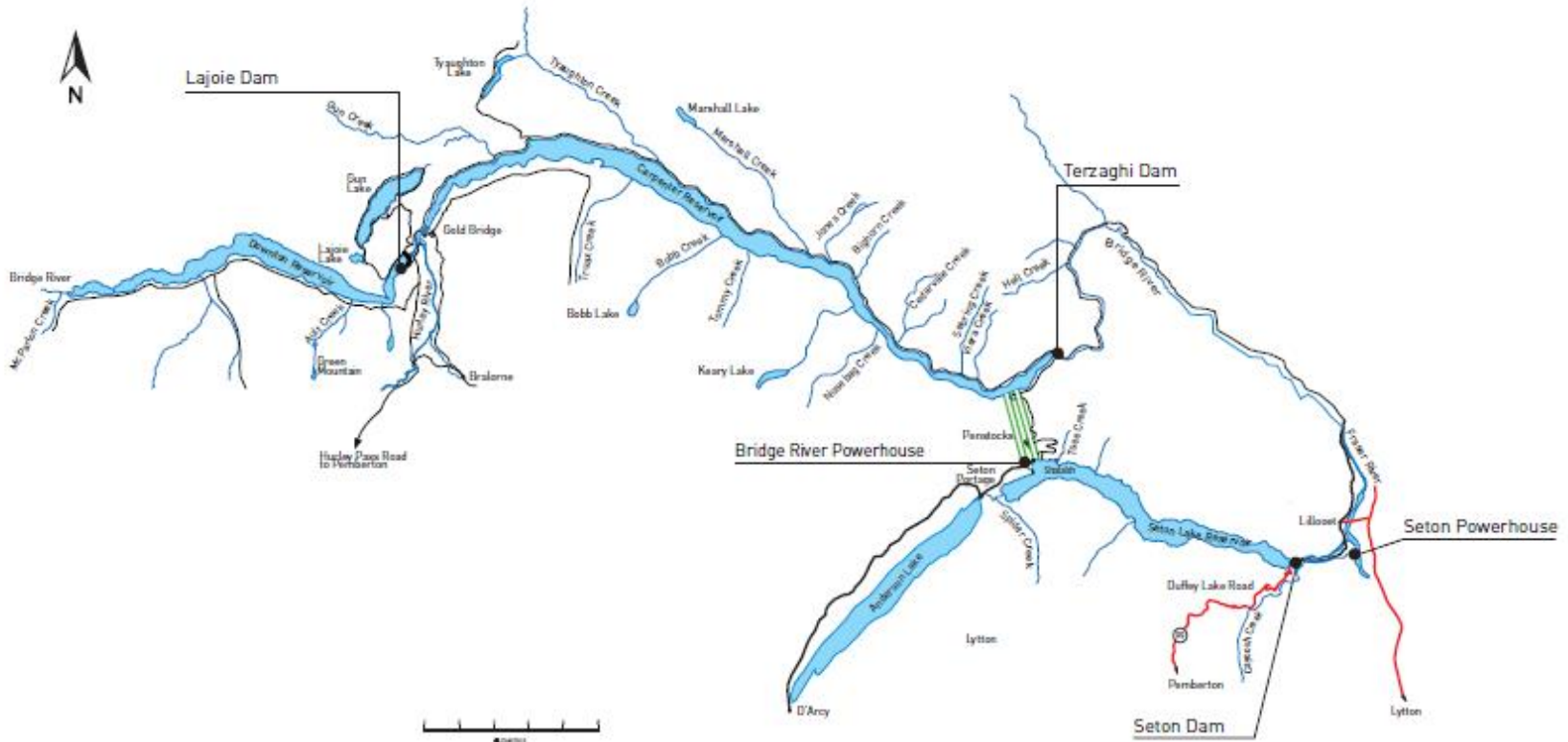
July 2022

Seton Lake

 **BC Hydro**
Power smart

Overview

Bridge River System

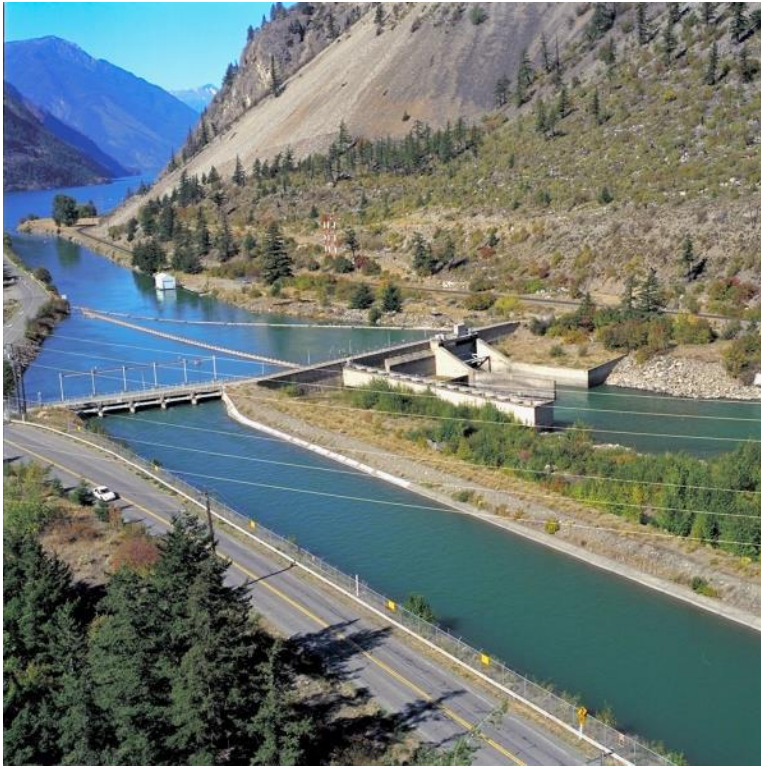


Seton Unit Replacement Project Overview

- Early planning stages continue for the Seton Unit Replacement project.
- The generator and turbine are nearing the end of their life.
 - Generator was installed in 1956
 - Turbine was replaced in 1977
- Replacement is required to ensure the facility continues to operate safely and reliably
 - New generator and turbine
 - Possible hydraulic bypass

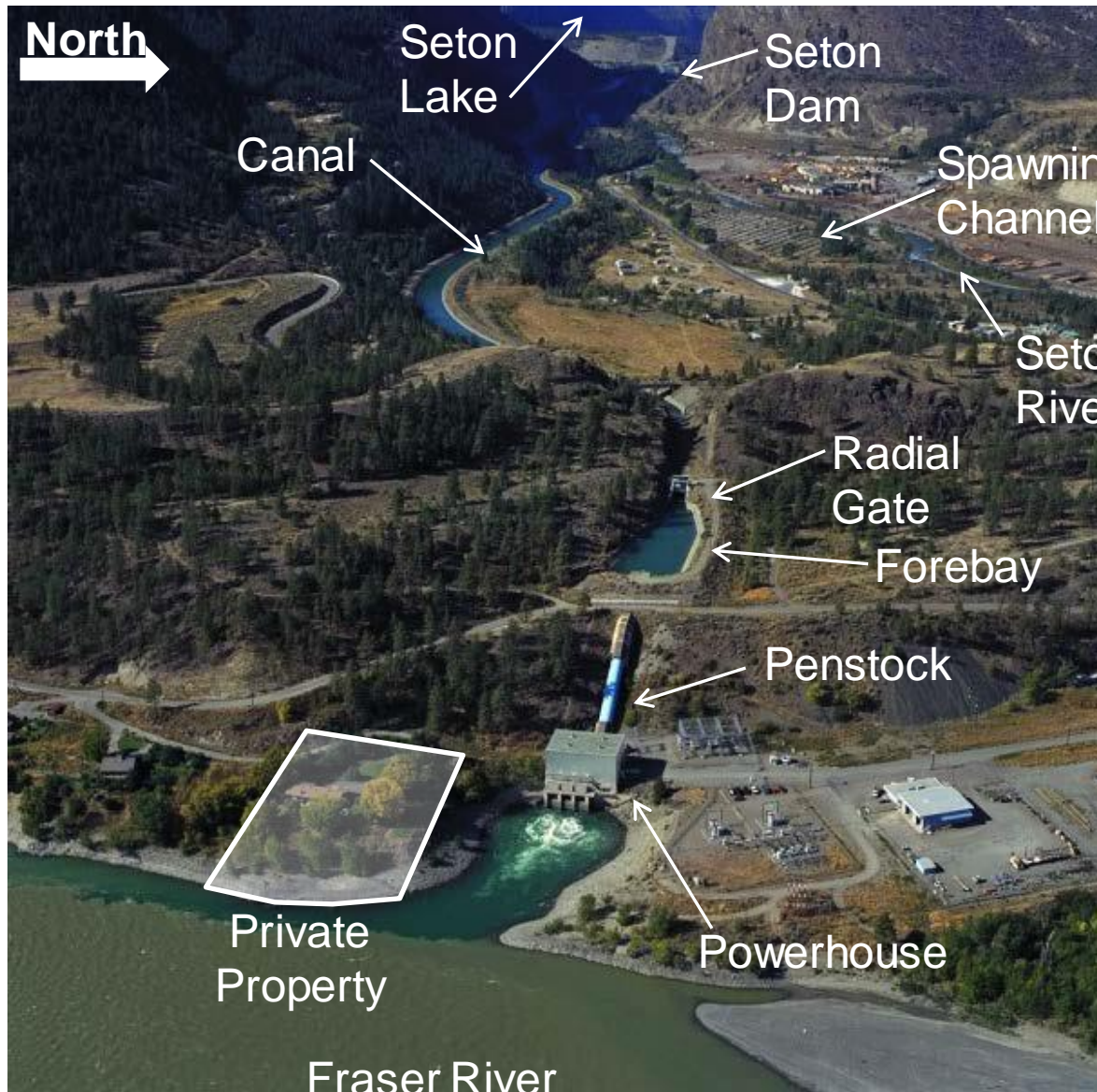


Why is this project important?

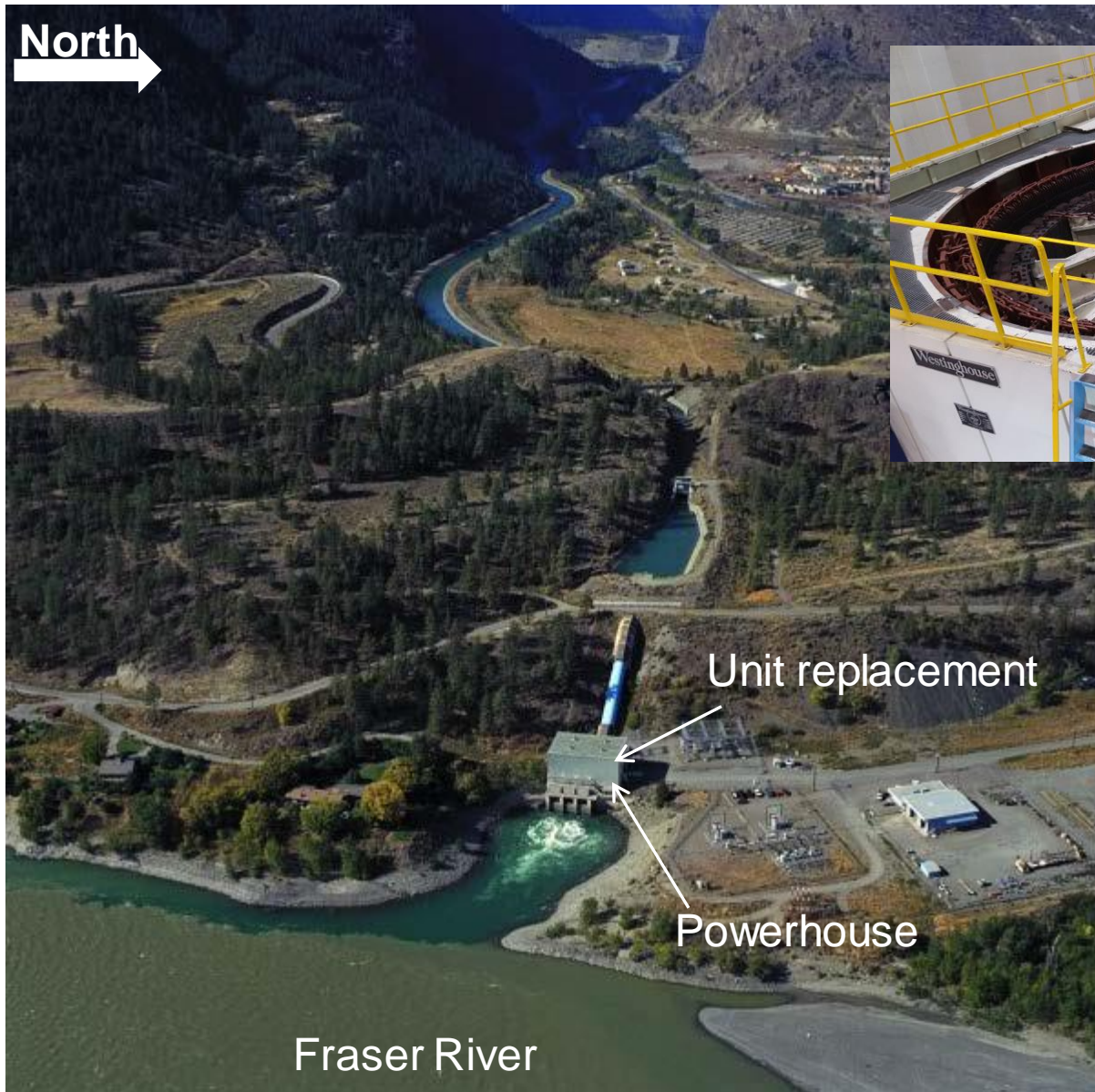


- The Seton Dam and Generating Station are at the downstream end of the Bridge River system and plays a major role for water conveyance in the system. It:
 - Provides operational flexibility for water management
 - Maintains controlled flow for the Seton and Lower Bridge Rivers
 - Maintains electrical power into the grid

Overview of Seton Generating Station



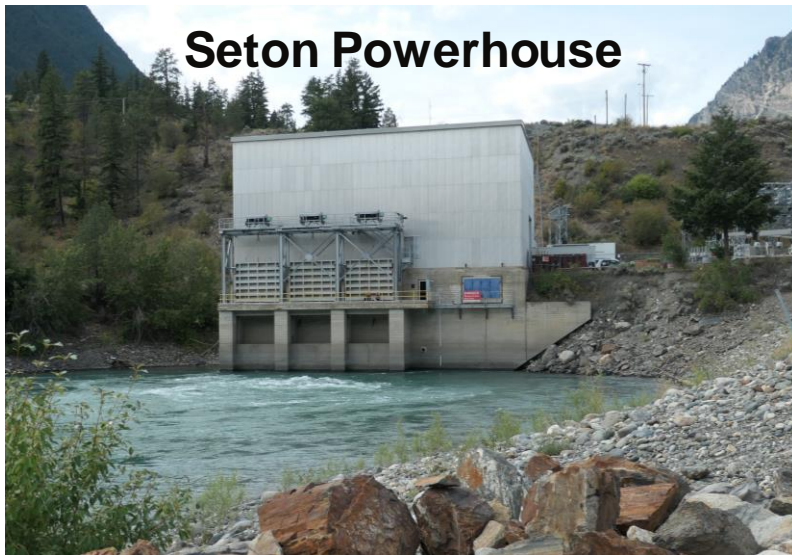
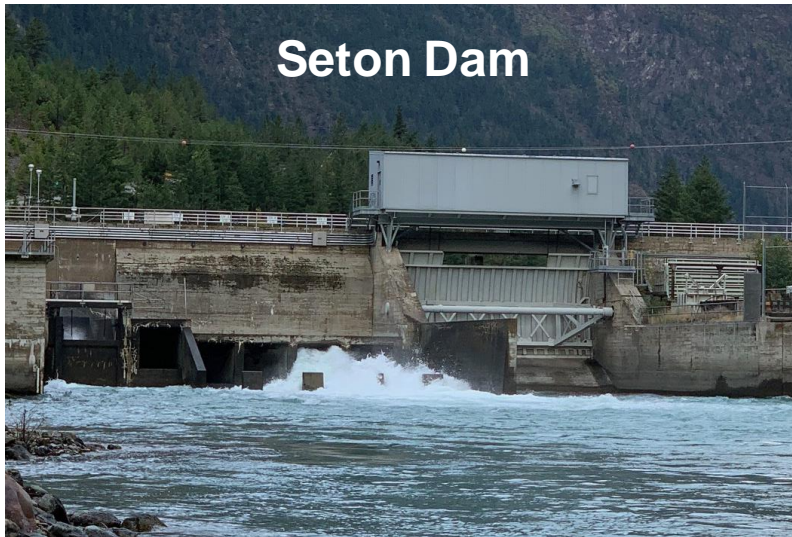
Overview of Seton Generating Station



Above: The Seton generating unit is dismantled for annual maintenance.

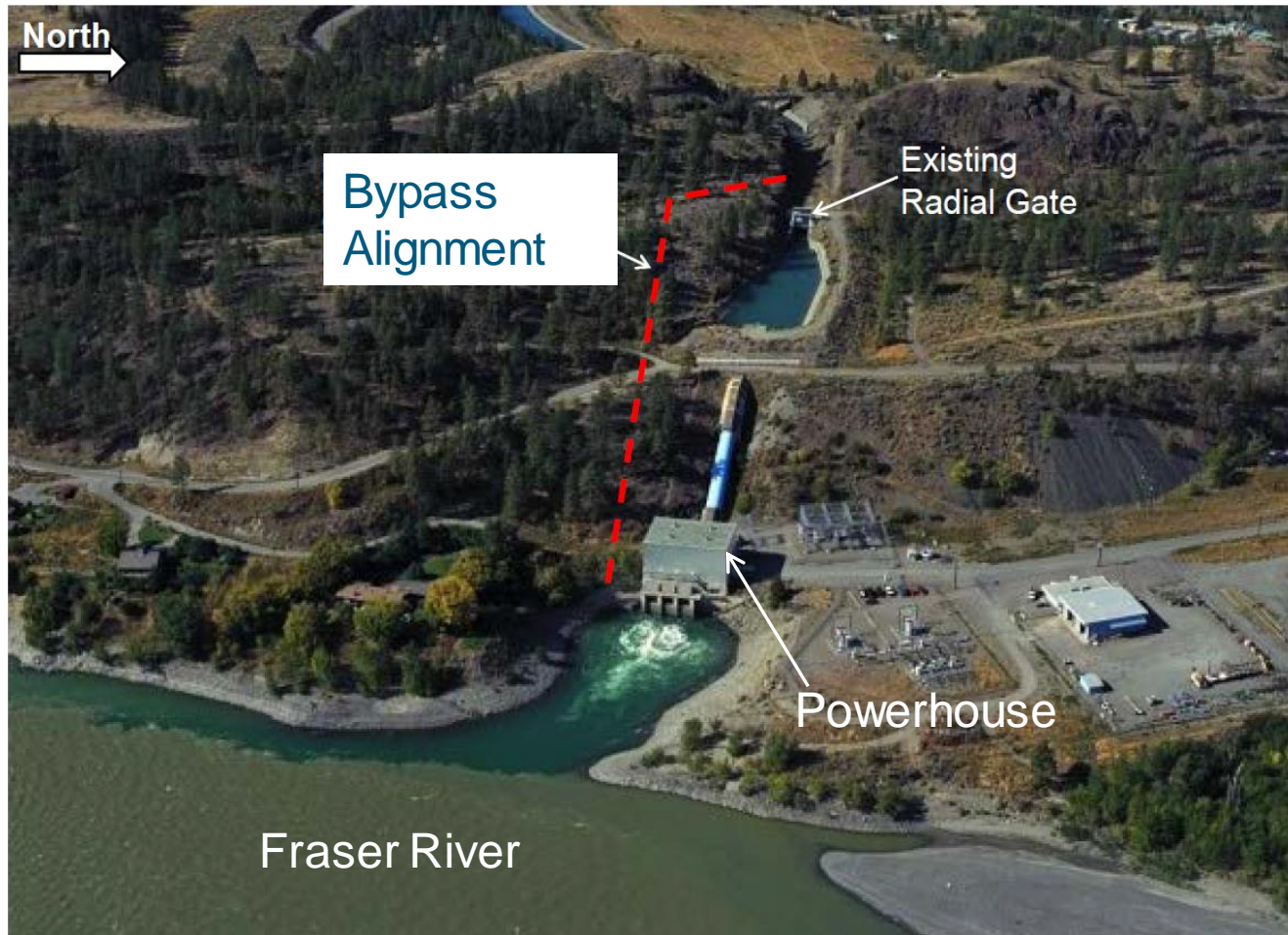
- Unit replacement work will take place within the powerhouse.

Why do we need a Bypass?



- There are two possible ways to pass water from Seton Lake:
 - through the dam (via Seton River)
 - through the canal and powerhouse.
- The anticipated 12-month construction period to replace the generating unit requires no flow through the powerhouse.
- Diverting all water down the Seton River for 12 months would result in:
 - very high flows
 - environmental impacts
 - risk of erosion

Overview of Seton Generating Station with Bypass Alignment



Key Considerations

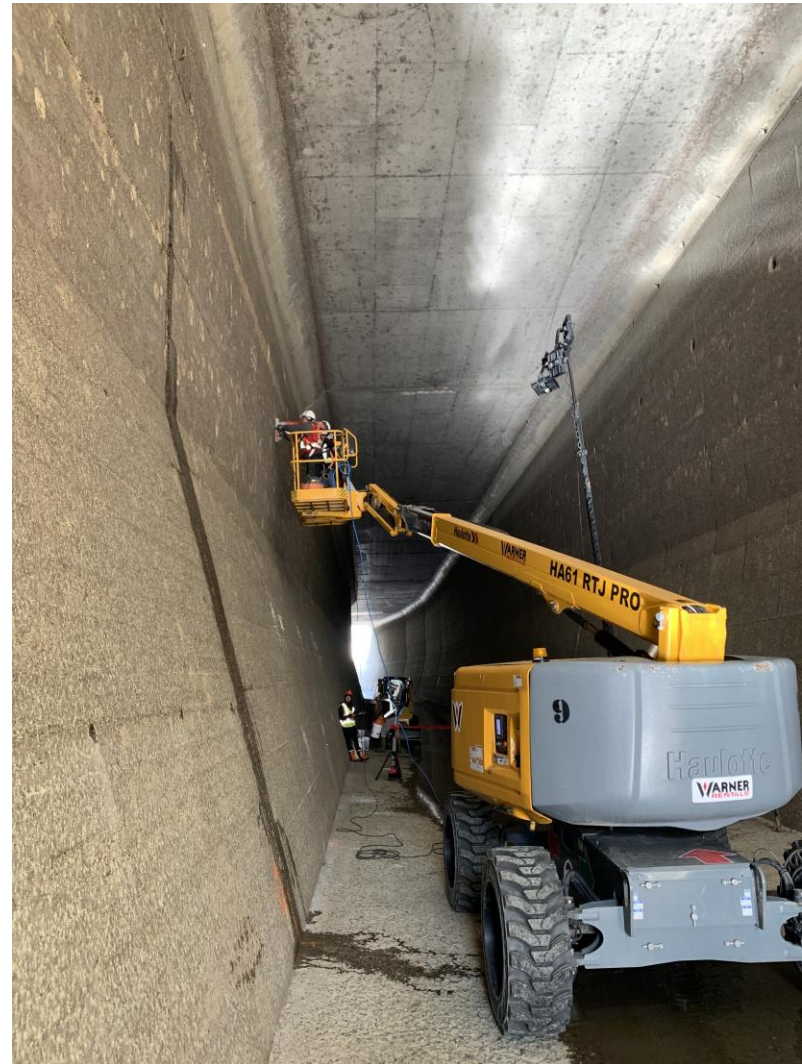
Structured Decision Making

- Safety
- Environment
- Cost
- Socio-economic
- First Nations
- Stakeholders
- Reliability
- Operations and Maintenance
- Constructability



Current Activities

- In Feasibility Design Stage
- Coring complete and assessment underway
 - Expect to complete in 6-8 more months
 - Rock characteristics being evaluated
 - Possibility of an underground rock tunnel which helps avoid archeological sites identified in the area
- Confirming equipment health of the current unit

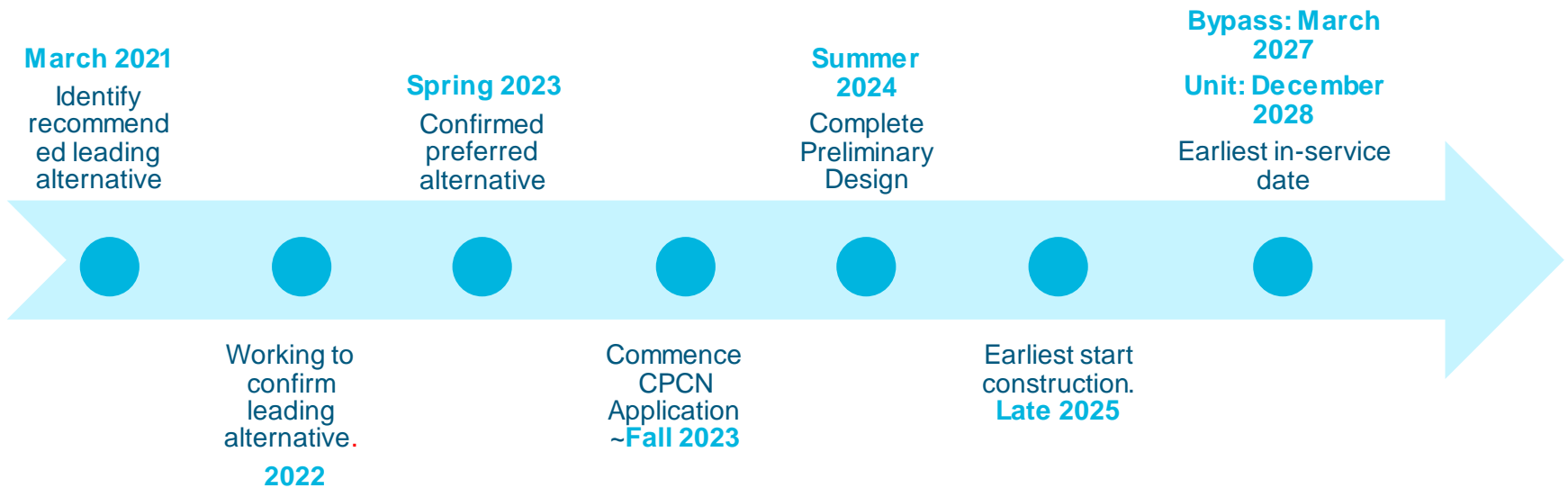


Current Activities (cont'd)

- Drilling program completed beginning of 2022
 - Analysis of drilling program continues
- Ongoing desktop studies:
 - Flow modelling
 - Archaeological overview including Archaeological Investigation Assessment (AIA)
 - Environmental overview
 - Fish passage studies
 - Cultural heritage studies



Project Timeline



Safety



- A BC Hydro Management Plan includes all aspects of safety and emergency response such as:
 - Travel
 - Working alone procedures
 - Code of Conduct
 - Evacuation
 - Policies and procedures
 - Wildfire response
 - Flood response
 - COVID-19 – Vaccine mandate
- No lost time incidents reported last year.

Economic Opportunities

Specialty Labour and Training

Generator Replacement Projects

- [Winder Electricians](#)
- [Millwrights](#)
- [Concrete Finishers](#)
- [Construction craft workers/general labourers](#)
- [Construction Management](#)
- [Site Superintendents](#)
- [Qualified Environmental Professional](#)
- [Environmental Monitors](#)
- [Flagging](#)
- [First Aid](#)
- Safety Manager/ Officer
- Quality Manager
- Administration

BC Hydro

www.bchydro.com/careers

**Industry Training
Authority BC**

www.itabc.ca

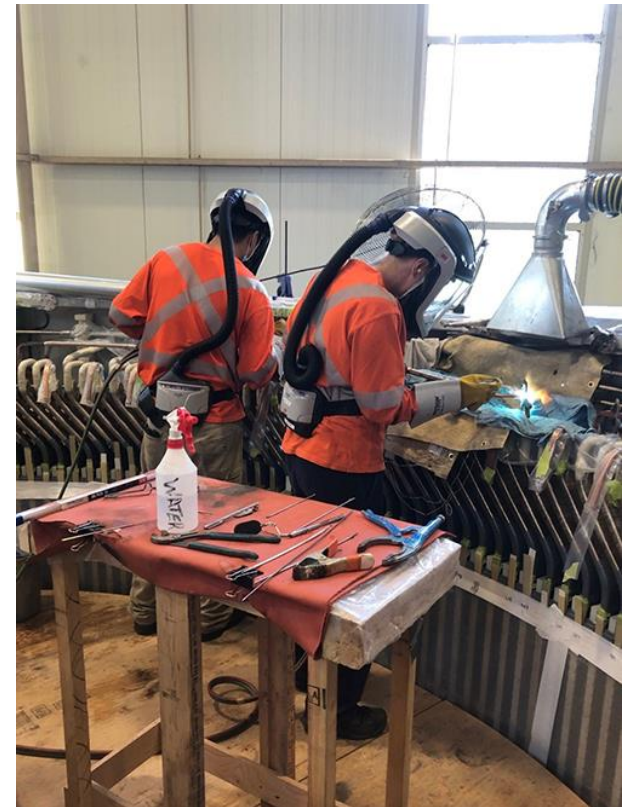
Economic Opportunities

- As we're in the early stages of the Seton Unit Replacement project, we haven't identified what opportunities will be available.
- There will be more information as we move forward with our planning.

Workforce

Over the multi-year construction period that is targeted to start in 2026, we anticipate:

- 2026-2027: ~40 temporary workers for the bypass
- 2027-2028: ~30 temporary workers for the unit replacement



Accommodation



- Accommodation in Lillooet is the priority, wherever possible:
 - This includes local hotels and local private houses
 - We will be engaging with our contractor on planning activities:
 - Includes an assessment of accommodations and accessibility from Lillooet to Gold Bridge for the Bridge River system
 - Expected completion is 12 months

Consultation and Engagement

Ongoing

As the project moves forward, we'll continue to work with local communities.

- Local government
 - Squamish Lillooet Regional District
 - District of Lillooet
- St'at'imc Nation – Sekw'el'was
- Key stakeholders
- Public

Next Steps

Consultation and engagement will be ongoing throughout the project:

- Updates in the Bridge River Newsletter
- Future open houses as we continue to update communities
- Presentations such as this one

If you have any questions or comments on our project work, you can reach us at:

Email: projects@bchydro.com

Phone: 1 866 647 3334

You can also find the latest project information on our website:

www.bchydro.com/bridgeriver

Bridge River Newsletter
Projects update—Spring 2021

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


The system consists of the La Jolie Dam and Powerhouse (Downson Reservoir), Bridge 1 and 2 Powerhouses (Tarzaghi Dam and Carpensar Reservoir) and Seon Dam and Powerhouse (Seon Lake).

We're making 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.


Update on Bridge River regulatory filings

In fall 2020, the BC Utilities Commission directed BC Hydro to file a joint Certificate of Public Convenience and Necessity (CPCN) for the Bridge River 1 Units 1-4 Generator Replacement Project and the Bridge River Transmission Project (bchydro.com/brrp). We're preparing to submit this combined application in June 2021. More information on the CPCN process is available at bcuc.com/gis-involved.

The project at Bridge River 1 will replace aging generating equipment in the station to improve reliability, restore capacity and increase operating flexibility. Targeted completion is 2030. The transmission project will ensure that the regional transmission system continues to move electricity from these generating facilities to our customers during peak periods. Targeted completion is 2025.



Bridge River System



The greenhouse at Bridge River

BC Hydro
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Questions?

