

# Seton Unit Replacement Project

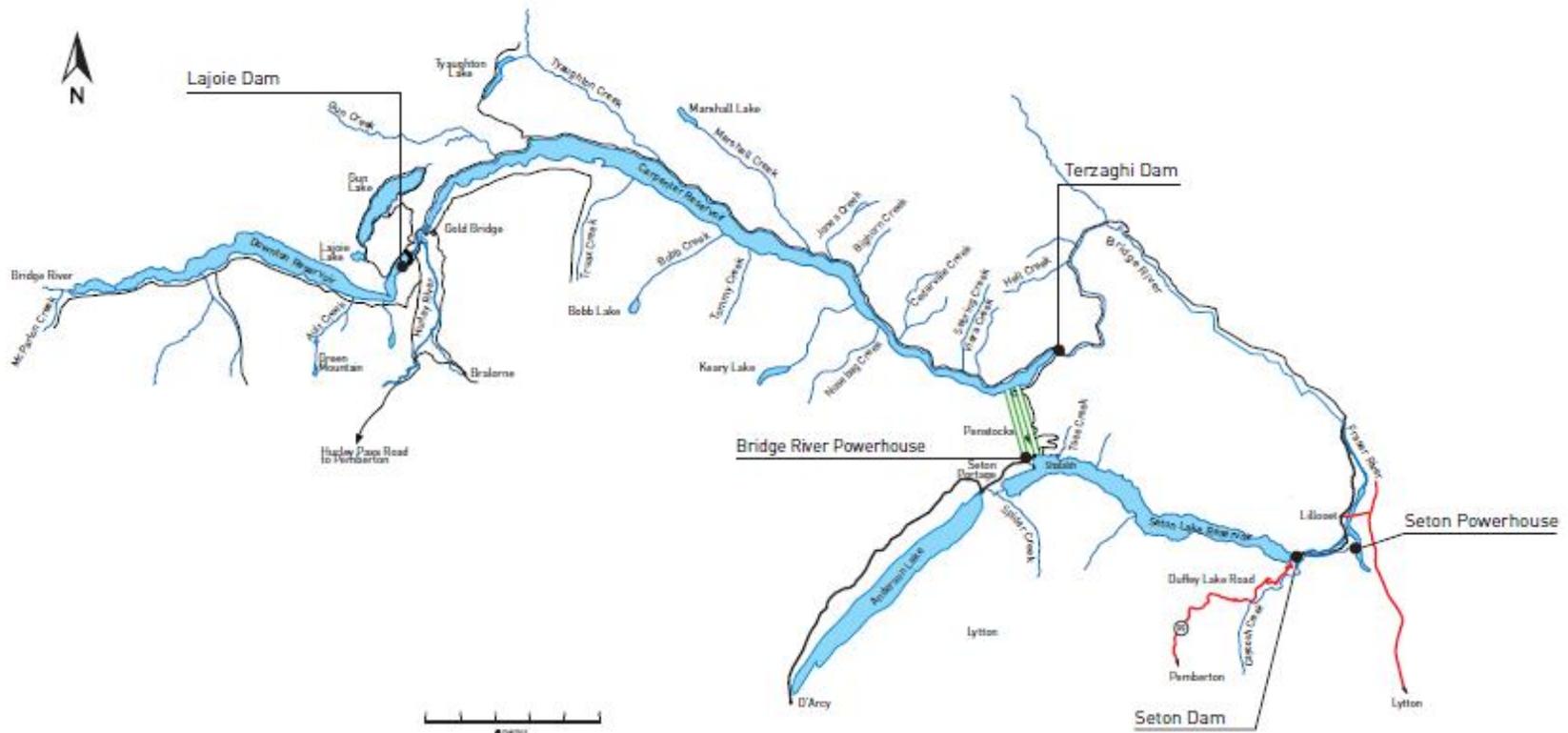
December 2021

Seton Lake

 **BC Hydro**  
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# Overview

## Bridge River System

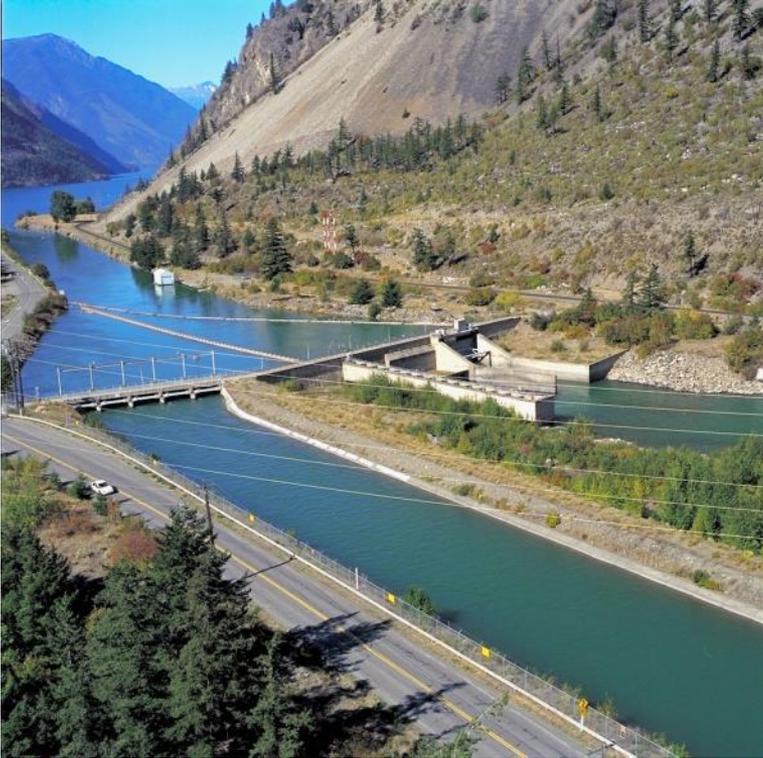


# Seton Unit Replacement Project Overview

- We're in the early planning stages of the Seton Unit Replacement Project.
- The generator and turbine are nearing the end of their life.
  - Generator was installed in 1956; the turbine was replaced in 1977.
- Replacement is required to ensure the facility continues to operate safely and for a long duration.
  - New generator and turbine
  - Hydraulic bypass

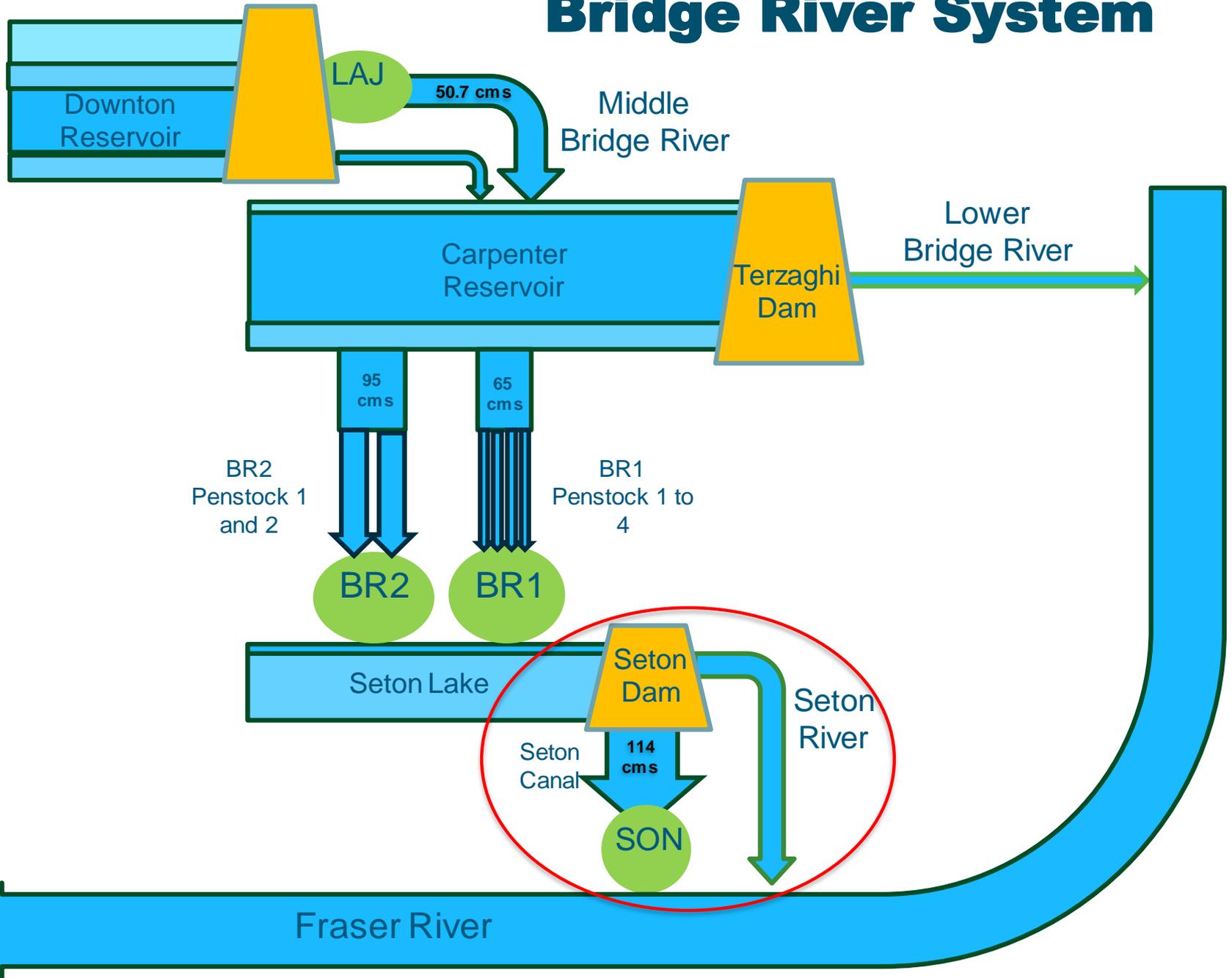


# Why is this project important?

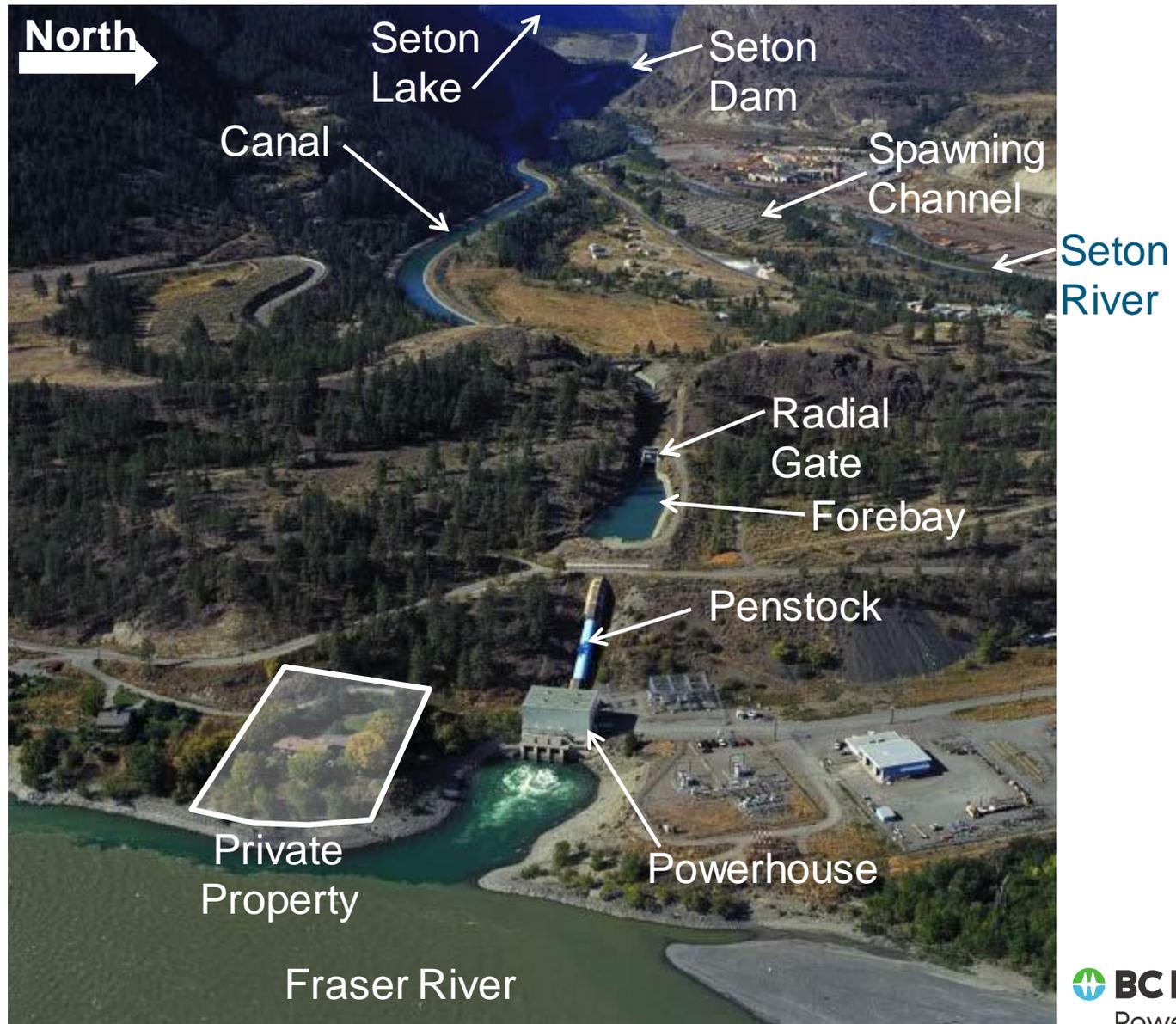


- The Seton Dam and Generating Station is at the downstream end of the Bridge River system and plays a major role for water conveyance in the system. It:
  - Provides operational flexibility for water management
  - Maintains controlled flow for the Seton and Lower Bridge rivers
  - Maintains electrical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

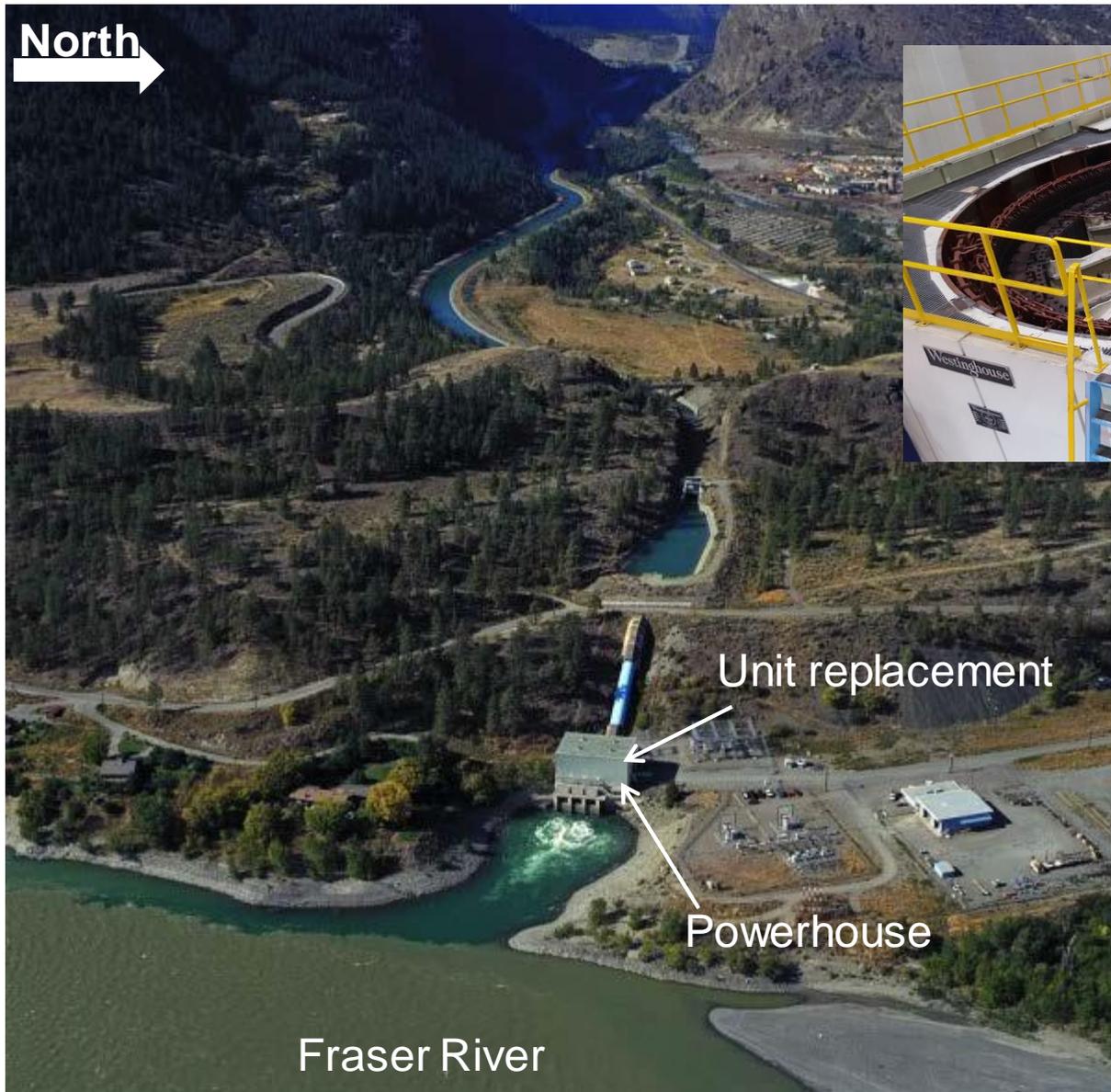
# Bridge River System



# Overview of Seton Generating Station



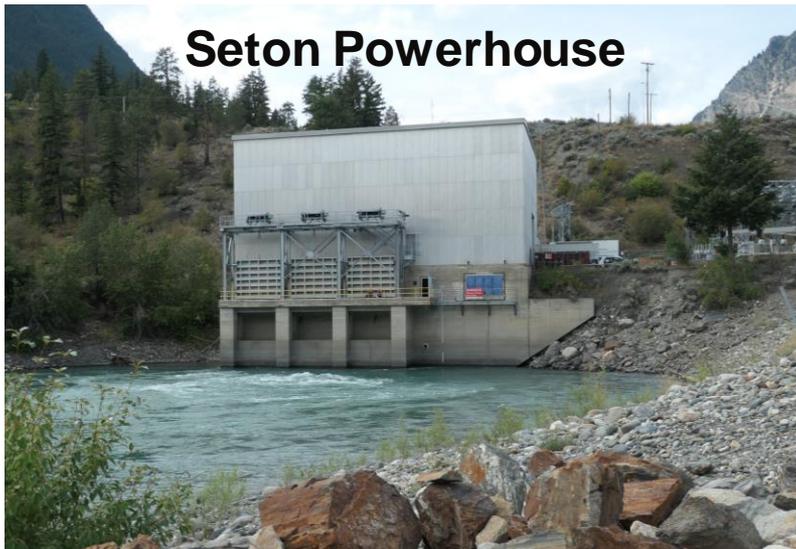
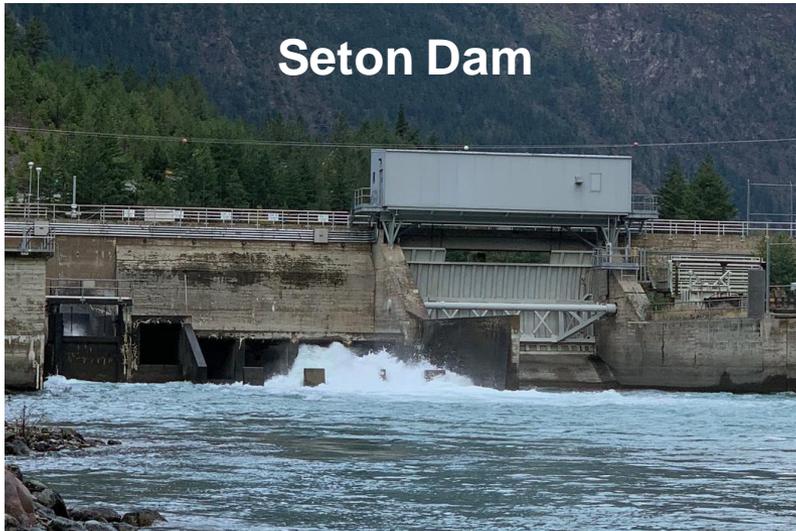
# Overview of Seton Generating Station



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

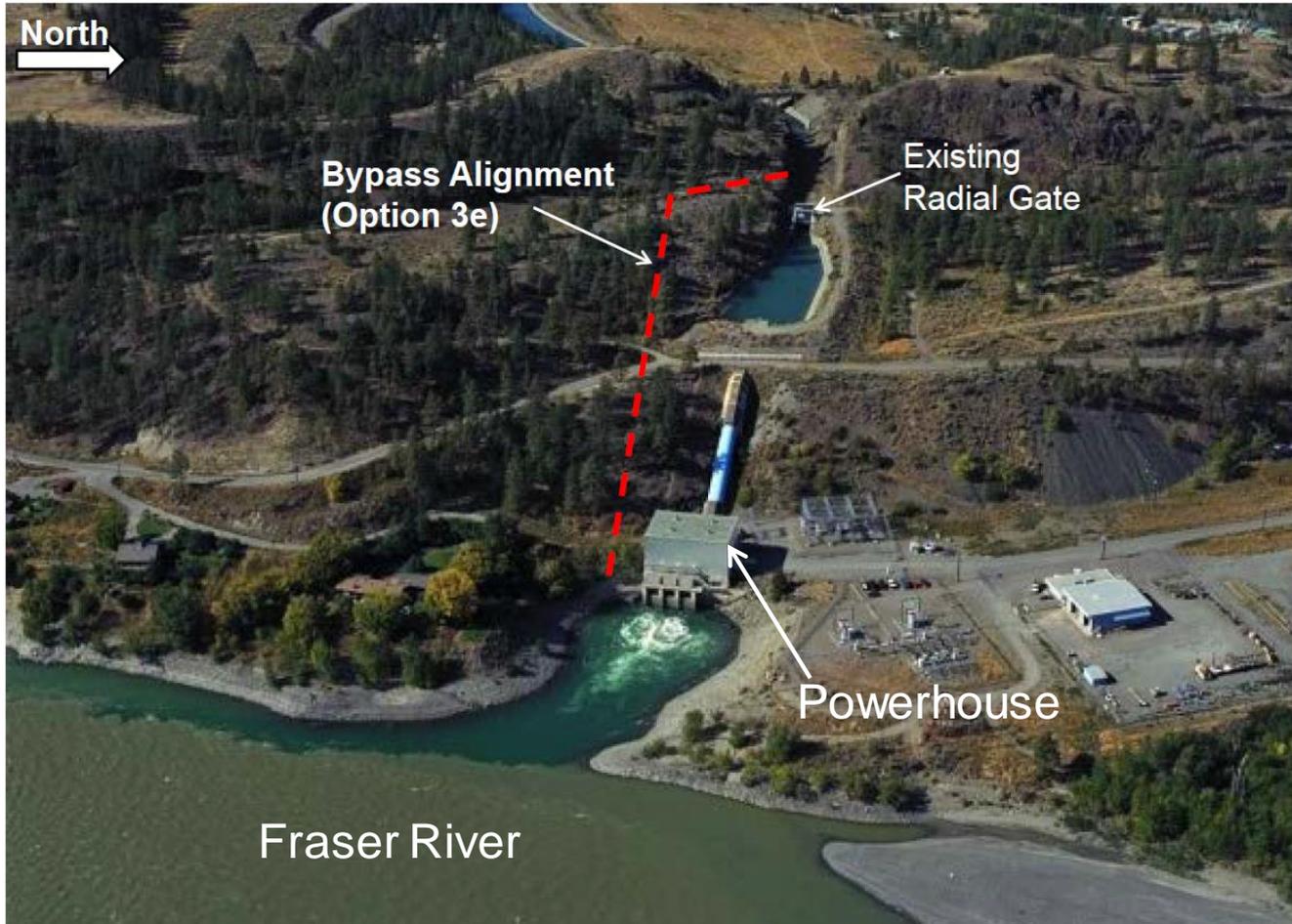
- Unit replacement work will take place within the powerhouse.

# Why do we need a Bypass?



- There are two ways to move water from Seton Lake:
  - through the dam (via Seton River)
  - through canal and powerhouse.
- The anticipated 12-month construction period requires no flow through the powerhouse.
- Diverting all water down the Seton River for 12 months will 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

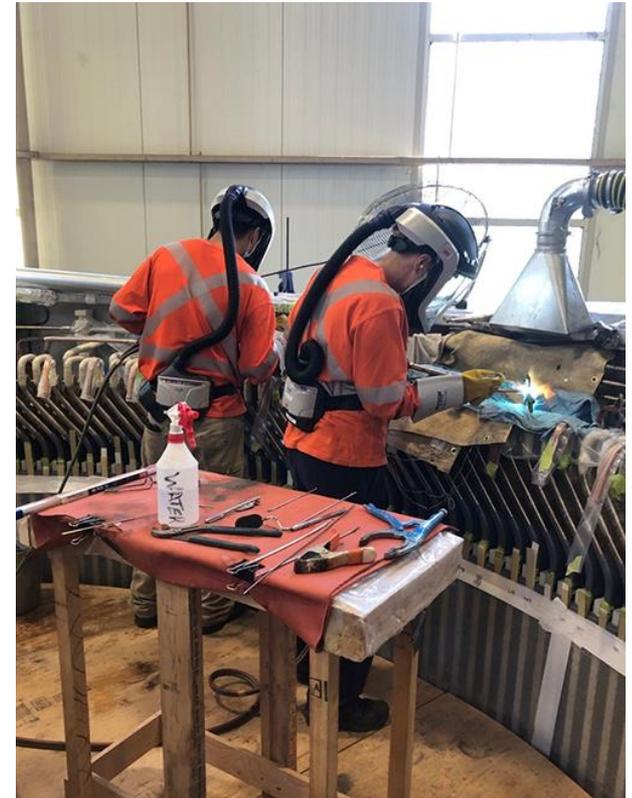


# Economic Opportunities

- As we're at the early stages of the Seton Unit Replacement Project, we haven't identified what opportunities will be available.
- We'll share more information as we move forward with our planning.

## Workforce and Accommodation

- Over the multi-year construction period that is targeted to start in 2025, we anticipate:
  - 2025-2026: ~40 temporary workers for the bypass
  - 2026-2027: ~30 temporary workers for the unit replacement
- Local accommodation is the priority wherever possible.
- While accommodation is part of BC Hydro's planning activities, accommodation will be coordinated by the contractor as the project moves to implementation .



# 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

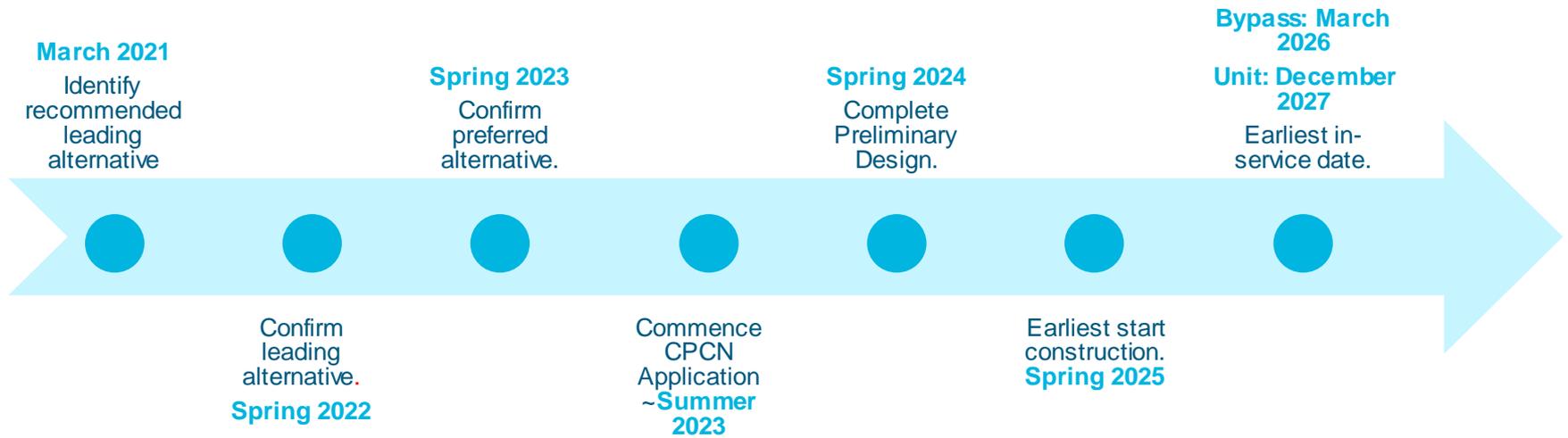
**BC Hydro**

[www.bchydro.com/careers](http://www.bchydro.com/careers)

**Industry Training  
Authority BC**

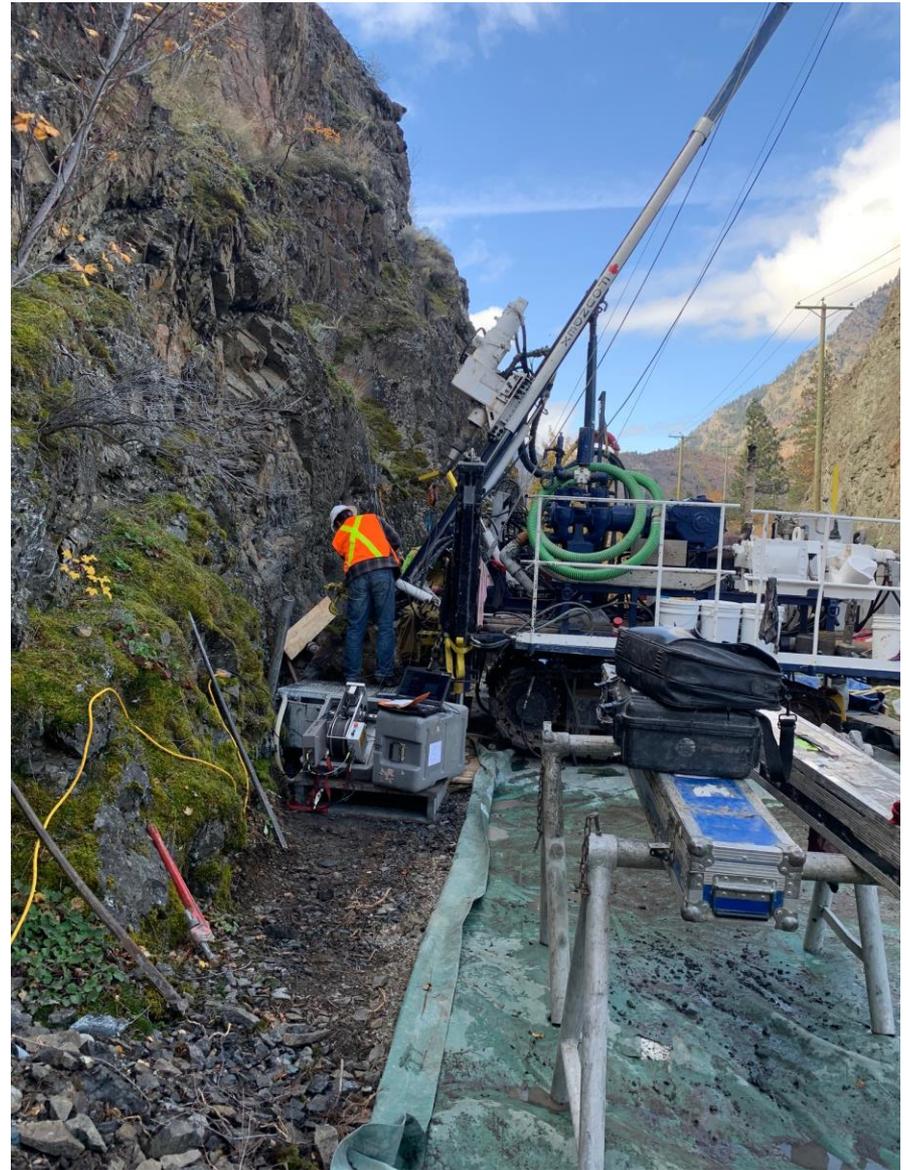
[www.itabc.ca](http://www.itabc.ca)

# Project Timeline



# Current Activities

- Identified the “leading alternative” for project
- Ongoing desktop studies:
  - Flow modelling
  - Archaeological overview including Archaeological Investigation Assessment (AIA)
  - Environmental overview
  - Drilling program analysis
  - Fish passage studies
  - Cultural heritage studies



# 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.

# Consultation and Engagement

## Ongoing

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

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

# Next Steps

Consultation and engagement will be ongoing throughout the project.

- Updates in the Bridge River Newsletter
- Virtual open house

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

Email: [projects@bchydro.com](mailto:projects@bchydro.com)

Phone: 1 866 647 3334

You can also find the latest project information on our website - [www.bchydro.com/bridgeriver](http://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.

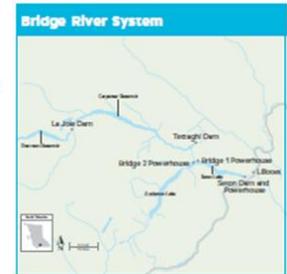
The system consists of the La Jolie Dam and Powerhouse (Downson Reservoir), Bridge 1 and 2 Powerhouses (Tzaraghi Dam and Carpenter Reservoir) and Selon Dam and Powerhouse (Selon Lake).

We're making significant investments 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](http://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.



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# Questions ?

