# Seton Unit Replacement Project

July 2022

Seton Lake

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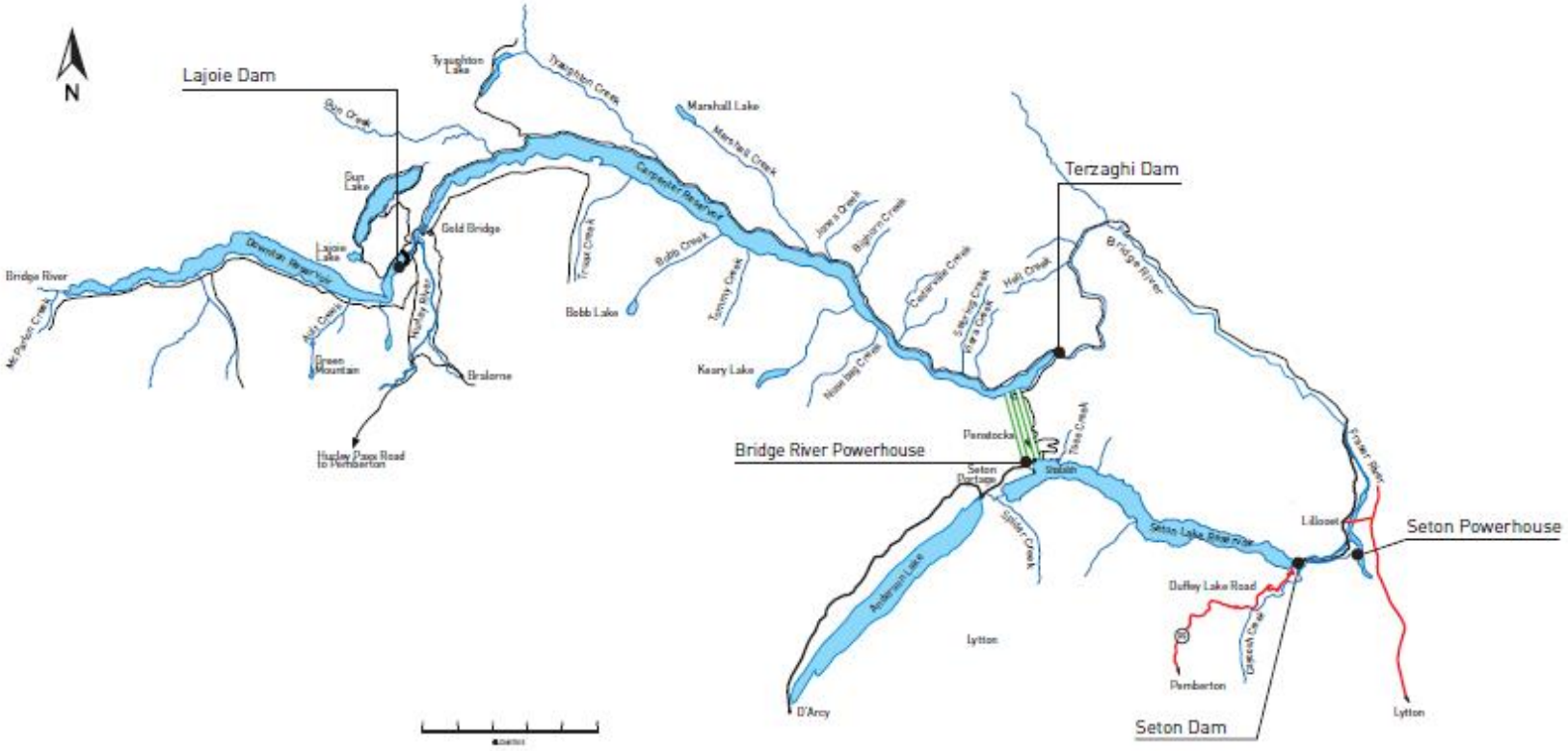
# Overview

## Bridge River System



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# 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




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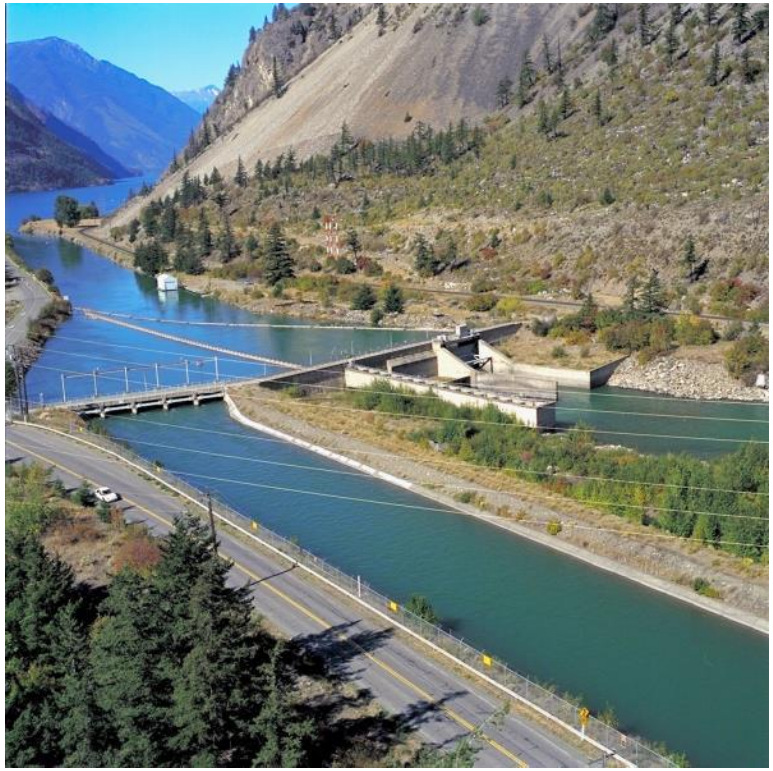
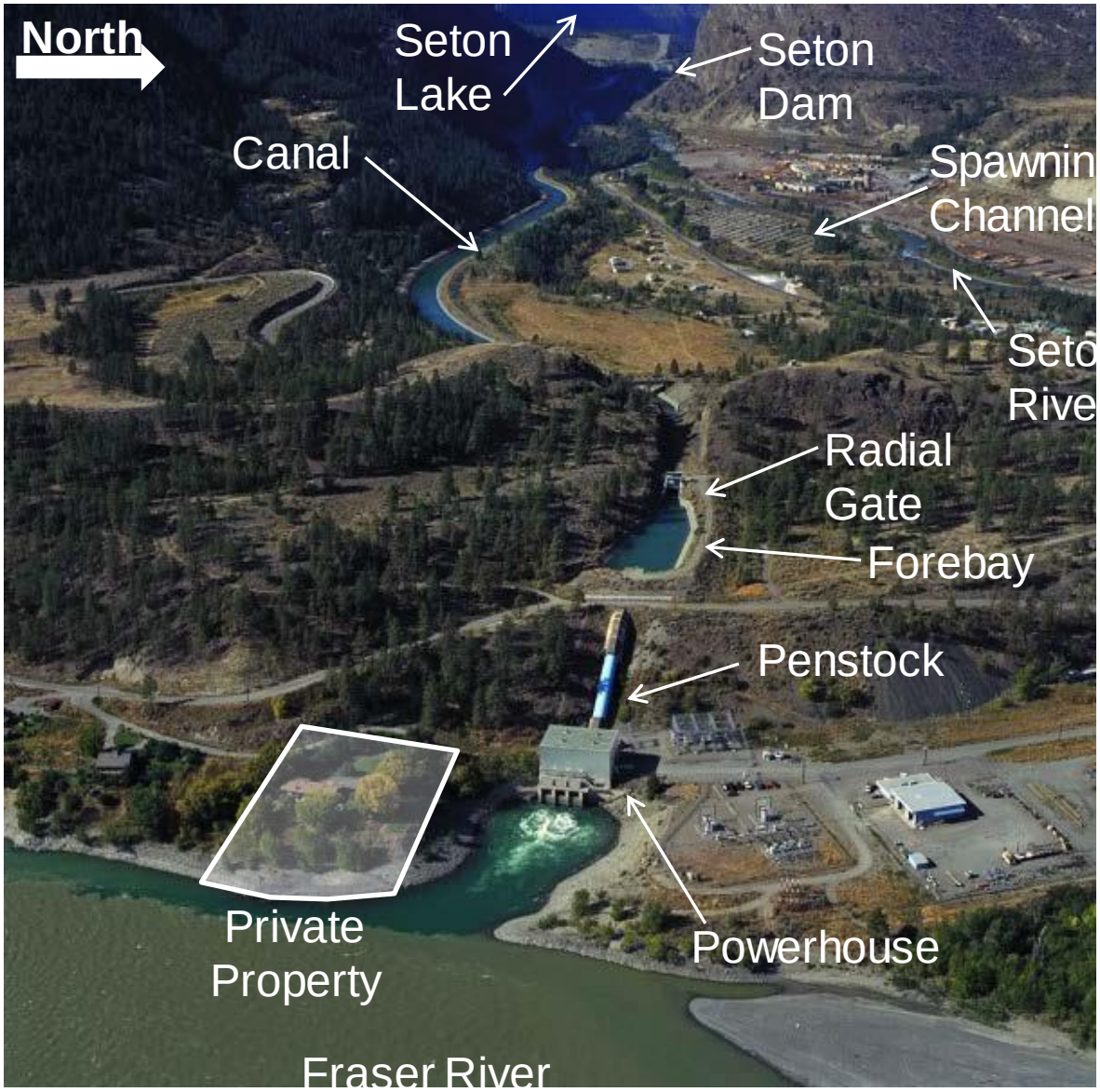
# Why is this project important?



- 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

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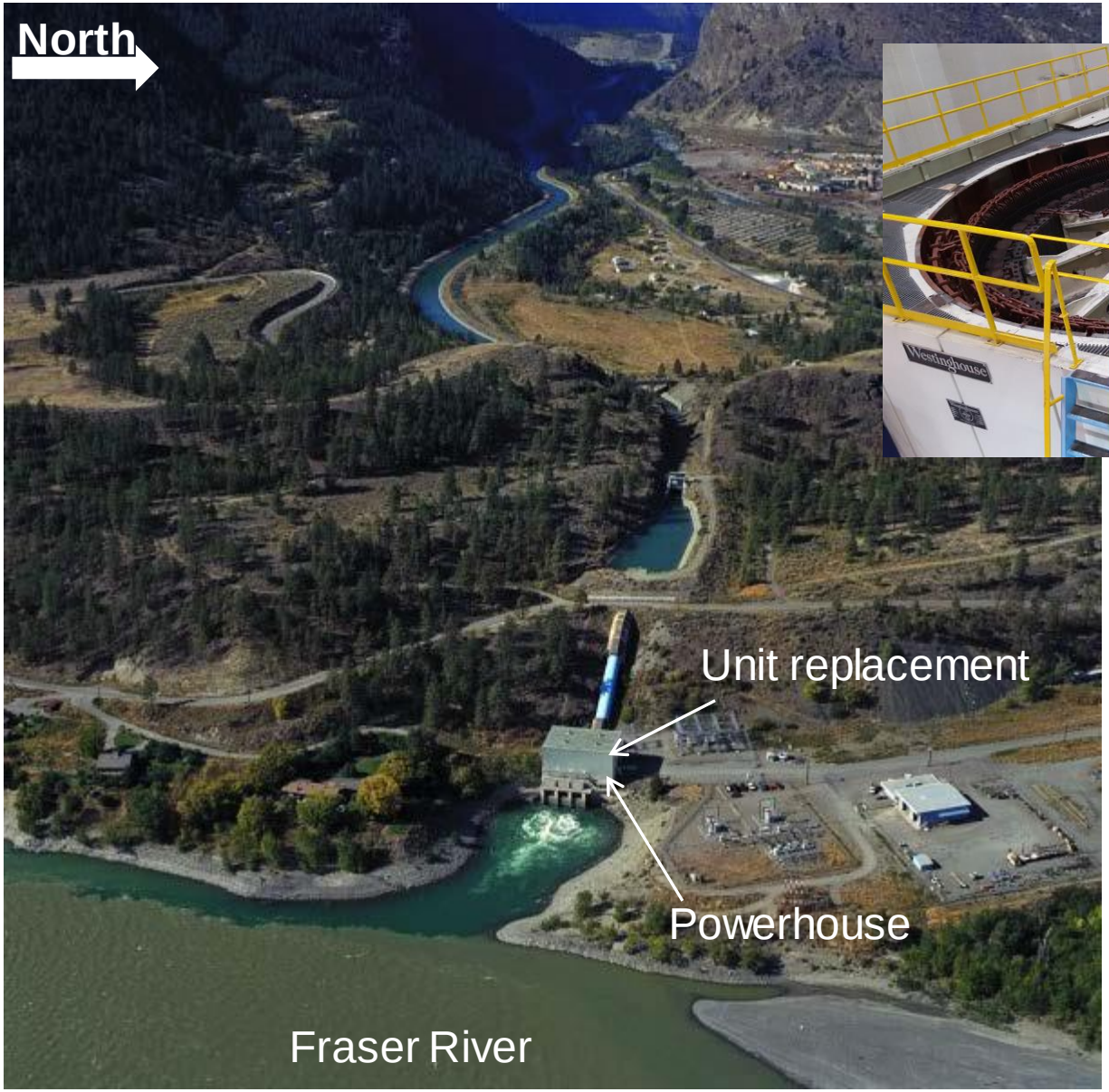
# Overview of Seton Generating Station





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

- Unit replacement work will take place within the powerhouse.

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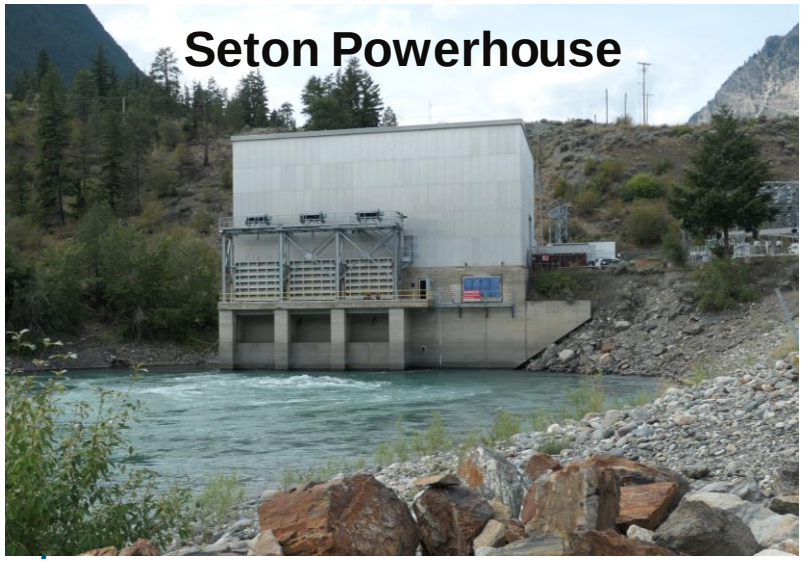
# Why do we need a Bypass?


- 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

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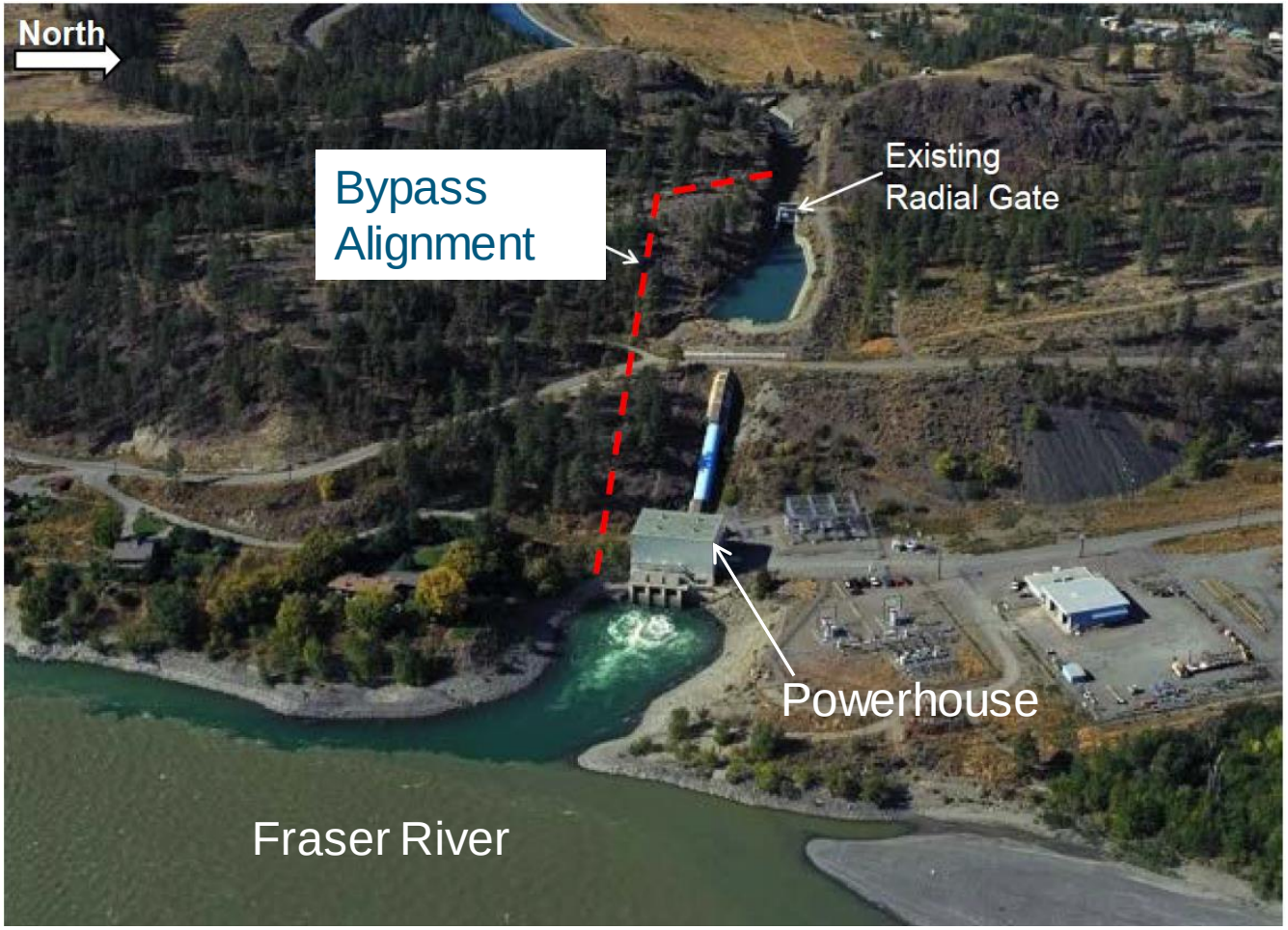
# Overview of Seton Generating Station with Bypass Alignment

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# Key Considerations

## Structured Decision Making

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




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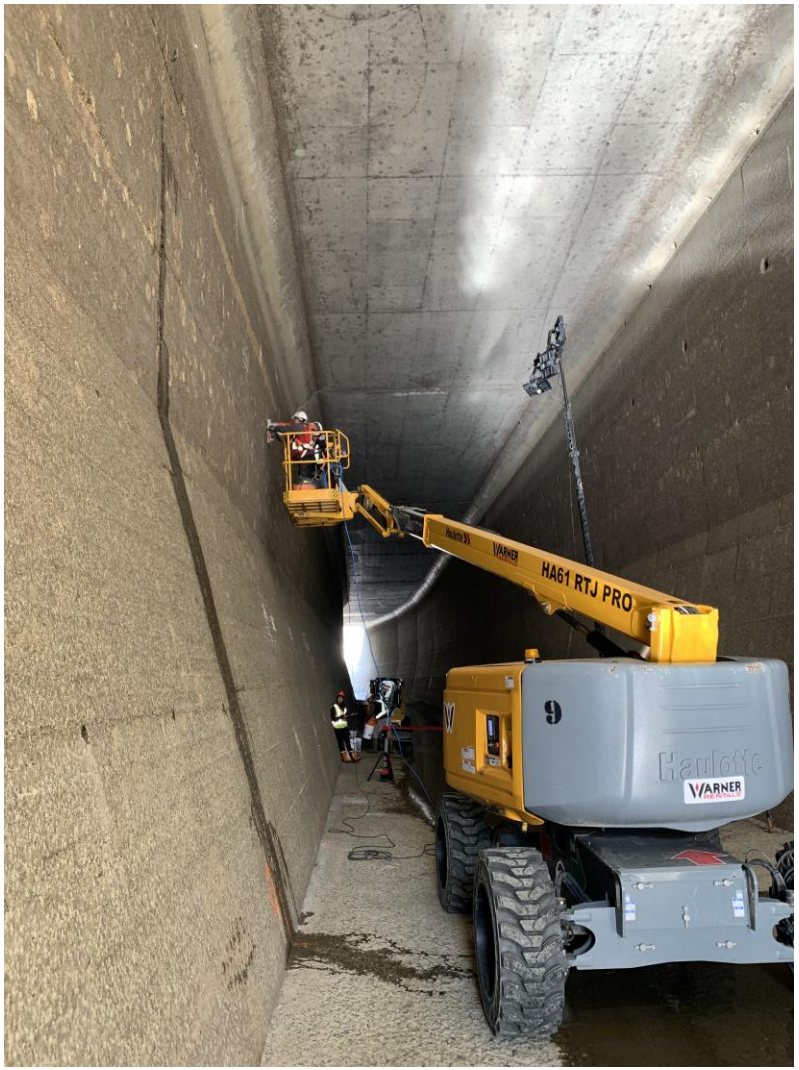
# Current Activities

- 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



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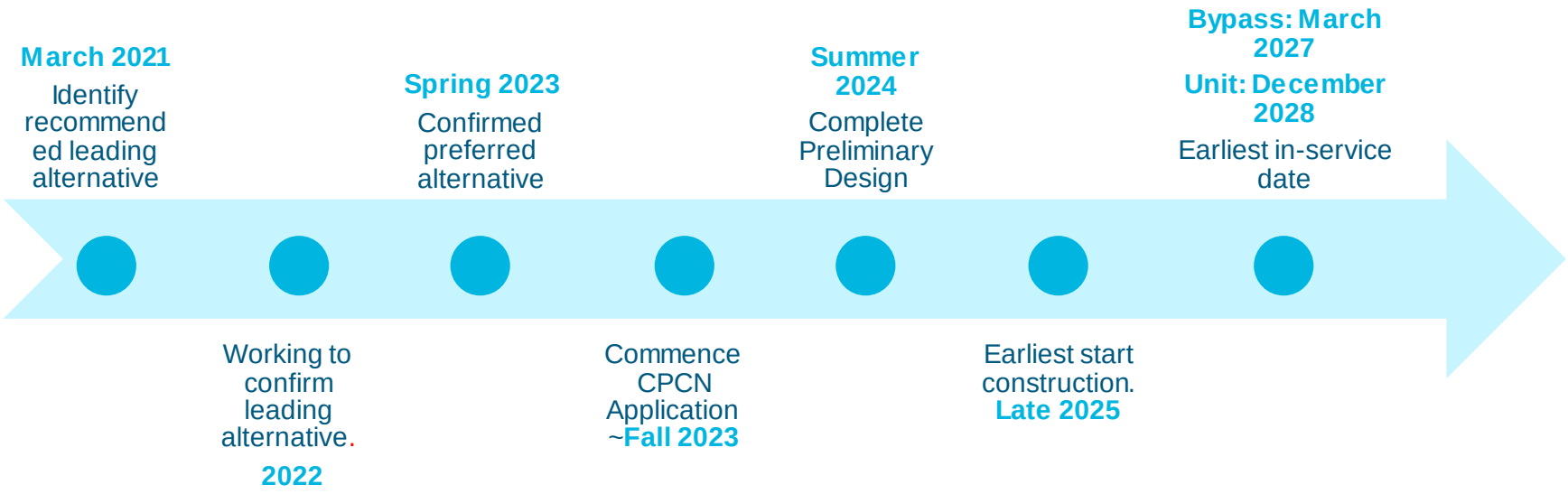
# Current Activities (cont'd)

- 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



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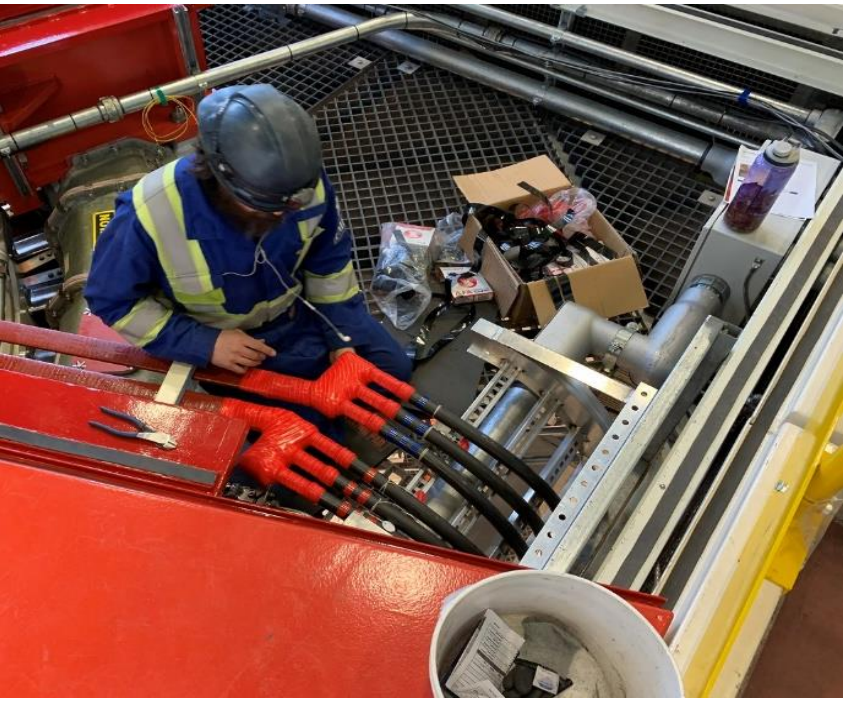
# Safety



- 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



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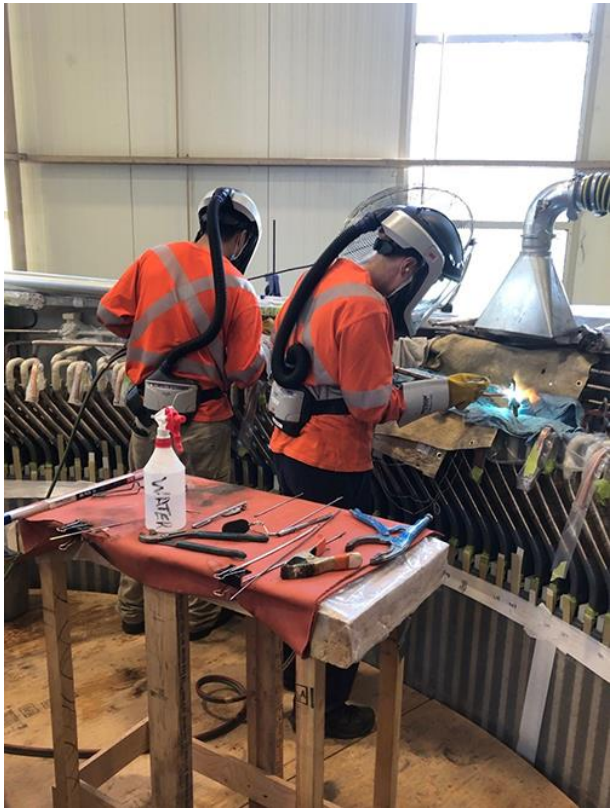
# Economic Opportunities

- 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:

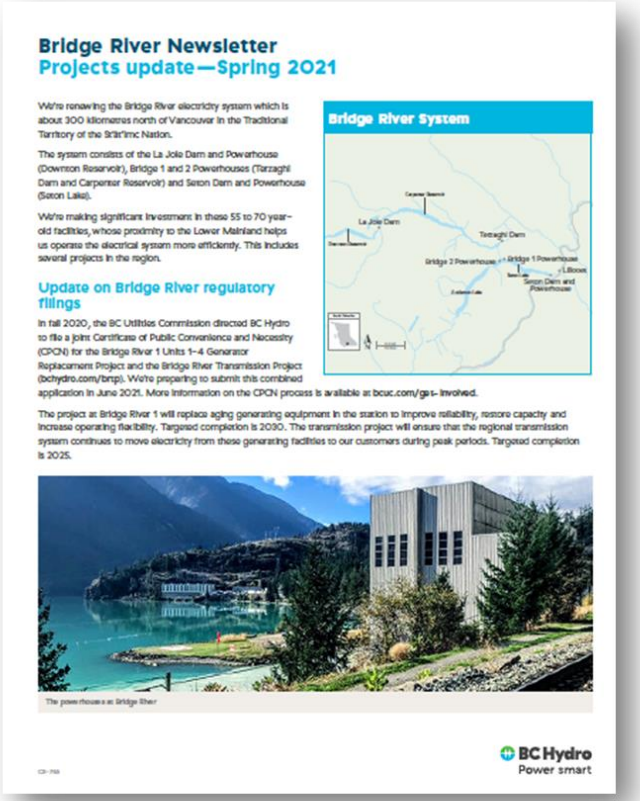
- Updates in the Bridge River Newsletter
- Future open houses as we continue to update communities
- Presentations such as this one

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 Stl'atl'imc Nation.

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

**Bridge River System**



**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/brtp). We're preparing to submit this combined application in June 2021. More information on the CPCN process is available at bcuc.com/get-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.

The powerhouse at Bridge River

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