



Bridge River newsletter

Projects update—Summer 2022

Sun peeking over the mountain above Seton Lake at Bridge River system, picture taken from the access road. Credits Bruce Voss.

We're renewing the Bridge River electricity system approximately 300 kilometers north of Vancouver located in the territory of the St'at'imc Nation, in the Squamish-Lillooet Regional District.

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 investments in these aging facilities, whose proximity to the Lower Mainland helps us operate the electrical system more efficiently.

Leading alternative for LaJoie Dam upgrade

LaJoie Dam is located at the upper end of the Bridge River system, significantly influencing the watershed. We're making large capital investments to the dam's infrastructure as it comes to the end of its life. These seismic upgrades are required to ensure the facility continues to operate safely.

After working with St'at'imc Nation and stakeholders to evaluate the alternatives for the project, **improving the dam to return to normal reservoir levels** was chosen as the leading alternative. This alternative includes working with St'at'imc Nation to review future operational options and regimes that could maximize the overall environmental benefits to upstream wildlife and downstream fish habitats. We're currently working on identifying the design options for the various aspects of the project.

Studies have already begun with a drawdown of the Downton Reservoir this past spring which allowed us to complete site investigations at the upstream toe of the dam.

This work included test pitting and taking samples from the concrete structures as well as environmental and archaeological monitoring to better understand impacts associated with a drawdown. Water levels in the reservoir have now returned to normal seasonal levels.

Construction at LaJoie is expected to begin in 2027 with targeted completion in 2032.

For more information, visit bchydro.com/lajoie.



Aerial Shot of LaJoie Dam and Generating Station with Downton Reservoir.

Seton Unit Replacement Project: coring complete, assessment underway

Things continue to move forward on the Seton Unit Replacement Project and proposed Seton Hydraulic By-Pass as rock characteristics are being evaluated from the recent coring.

In service since 1956, plans are underway to replace the generator and turbine to ensure the facility continues to operate safely. As part of the project, we're planning to install a hydraulic bypass to allow water to continue to flow down the power canal from Seton Lake to 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.

Project Manager John Wou says they're assessing the data from the drilling program done for the bypass route which finished in the first quarter of 2022. At the same time they are taking a closer look at the unit, "We've done our due diligence on the studies. What we need to have is an understanding of the unit itself. Confirming the equipment health of the old equipment and driving from that, the specs for the new one."

Assessing the results from the recent coring will take time as they will be identifying the characteristics of the rock. Wou says it will most likely be a rock tunnel and underground, which will help to avoid archeological sites that have been identified in the area, "Since we will be going deep underground there will be less disturbance. The good rock is deep, so we have to follow the good rock."

The Seton bypass is currently in the feasibility-design stage which is expected to last another 6-8 months. The targeted completion for the proposed Seton Hydraulic By-pass is 2026 followed by the Seton Unit Replacement set to finish in 2027.

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 into the Fraser River.



Seton Dam

Update: workforce forecast

BC Hydro's workforce in the Bridge River region can vary depending on project status. This summer, approximately 50 workers will be in the area. Most construction is expected between April and September. Workers will stay at existing facilities with the majority in Tsal'álh/Seton Portage. No additional accommodation is required this year.

Freshet flows for 2022

BC Hydro increased flows at Terzaghi Dam for the Lower Bridge River this spring/early summer due to a higher than normal forecasted snow pack.

In years with higher snowpack, inflows to reservoirs during the freshet period are greater than average. Increasing flows during spring/early summer helps to protect juvenile salmon currently migrating out to the ocean and also helps to avoid increased flows in the fall when adult salmon return to spawn. Flows started decreasing on July 6th and will continue to ramp down until August, after which releases will return to normal.

These changes in flow are decided in consultation and collaboration with St'át'imc Nation, Fisheries and Oceans Canada and the BC Ministry of Forests and will continue to discuss the flow forecast with BC Hydro.



Terzaghi Dam

Update: Bridge River regulatory filings

Approximately 1300 responses have been filed on BC Hydro's application for a joint Certificate of Public Convenience and Necessity (CPCN) for both the Bridge River 1 Unit 1-4 Generator Replacement Project and the Bridge River Transmission Project with the BC Utilities Commission (BCUC).

BC Hydro entered one of its final submissions on the project to the Commission in June, and has received Intervenor Arguments. The project at Bridge River 1 will replace aging generating equipment in the Generating Station to improve reliability of the generating units by mitigating the risk of equipment failure and improving the management of water flows in the Bridge River System. The targeted completion is 2030.

This will help BC Hydro:

- Comply with the 2011 Bridge River – Seton Water Use Plan Order target flow schedule
- Meet its commitments in the 2011 Agreements and 2019 High Flow Settlement Agreements with the St'át'imc Nation
- Maintain fish and fish habitat in Lower Bridge River.

As for the Bridge River Transmission project, it will maintain and upgrade the existing system, improving its ability to move electricity from where it is produced at Bridge River to other parts of the province. The targeted completion for that project is set for 2025.

For more information

CPCN process: bcuc.com/get-involved [Bridge River Transmission Project \(bchydro.com\)](https://bchydro.com)

Focus on skills: first aid attendant

BC Hydro is powered by water and people like you. We encourage exceptional talent, including skilled workers vital to maintaining our system and delivering our capital projects.

Safety is at the core of everything we do, all the time and at every level of our organization. On the frontlines is the first aid attendant. Russell Peters is the Occupational First Aid Level 3 Attendant and Security for Bridge River 2 projects. He's spent decades working on hydro projects, and is currently with the Tsal'alh Development Corp., used by BC Hydro across operations and capital project work. Their mission is to contribute to the development of a healthy, diversified and sustainable local economy that is guided by Tsal'alh community's needs and interests, "No day is ever the same.

It keeps you busy. Usually, you're going around and meeting new people because usually they have a lot of new contractors come in. And you meet people from all over the place."

First aid attendants are responsible for:

- Managing injured or ill employees and documenting treatment.
- Ensuring referral of employee to medical attention when required.
- Checking first aid certification validity and reporting deficiencies.
- Knowledge of first aid regulatory requirements
- Maintaining first aid equipment, facilities, supplies

For first aid training resources, Please visit [St. John Ambulance sja.ca/en/first-aid-training](https://sja.ca/en/first-aid-training).



Peters stands by his BC Hydro truck in front of the beautiful scenery at BR2.



BC Hydro First Aid Attendant Russell Peters in the BR2 First Aid Room.

Peters focuses on prevention. That includes safety meetings and tailboards, checking equipment, and making rounds to different projects, “You’re carrying around three different radios because there’s different groups with different people, different contractors, but I try to make an appearance at least once a day.” He collaborates with first aid attendants employed by contractors working on BC Hydro projects to ensure they are familiar with and following BC Hydro’s policies and procedures.

Peters spent 30 years travelling Canada, gaining experience as a skilled tradesperson on hydro projects. By chance, an opportunity opened up to come home, “It was a couple years ago, I just happened to be in the community one day... when the bosses said... why don’t you apply for a job here? And I said doing what? And he said security and first aid. And I said really? You want me to come home? So I did, and then from there I just jumped into first aid at BC Hydro.”

Peters would like to see more people from his community take over once he retires.

“I’ve been trying to get people on in this community to do first aid, but they have to go out and learn somewhere else. There is Level 3 training in the valley, but you have to have experience to get on with BC Hydro, like a tradesperson.”

One of those people may be his brother who is also working with BC Hydro and is training for the position. It continues the BC Hydro family legacy with his dad having also been a valued employee for many years.

For those looking at this as a career choice, Peters advice is, “stay in school, get your education, keep up with your training. You have to train all the time.”

For more information, bchydro.com/careers/.

Community grants and scholarships

BC Hydro offers two types of grants to support non-profit organizations and registered charities making a difference in their communities. **Broad Impact Grants** are up to \$10,000 and are available for organizations looking to expand an existing program’s reach or develop a new program across multiple communities in BC. **Grassroots Grants** are up to \$2,000 for local community-based programs.

In 2022, BC Hydro provided \$11,000 to eight community organizations under **Grassroots Grants** for the Lower mainland region. The 2023 application intake is open February 1 – March 31, 2023.

LILLOOET SECONDARY SCHOOL SCHOLARSHIPS

BC Hydro is pleased to award \$500 scholarships to two students from the Lillooet Secondary School graduating class of 2022. Both students are pursuing post-secondary studies focusing on Science, Technology, Engineering, Math (STEM) or trades training and are shining examples of community involvement.

For more information about Community Grants and Scholarships, visit bchydro.com/community/community-giving.html.

For more information on Bridge River projects visit bchydro.com/bridgeriver

If you have questions, please contact us at projects@bchydro.com or 604 623 4472 or toll-free at 1 866 647 3334.

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