

Decommissioning And Removal Of The Old John Hart Generating Station Facilities

**Community Update:
July-September 2019**

Report #3

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Decommissioning Status

Completed since June 30:

- Wooden penstocks completely removed, along with removal of contaminated soils from the corridor;
- Original generating station demolished with site flattened and prepared for new lookout site;
- Two of the three surge towers were felled, then cut up and removed for steel recycling;
- Surge tower site remediated, with office trailers removed, site levelled and prepared for revegetation;

- New trail designed and construction underway to reconnect Canyon View Trail loop; and
- New public river put-in improvements – rock pad design and installation for kayaks, canoes and river rafts only.

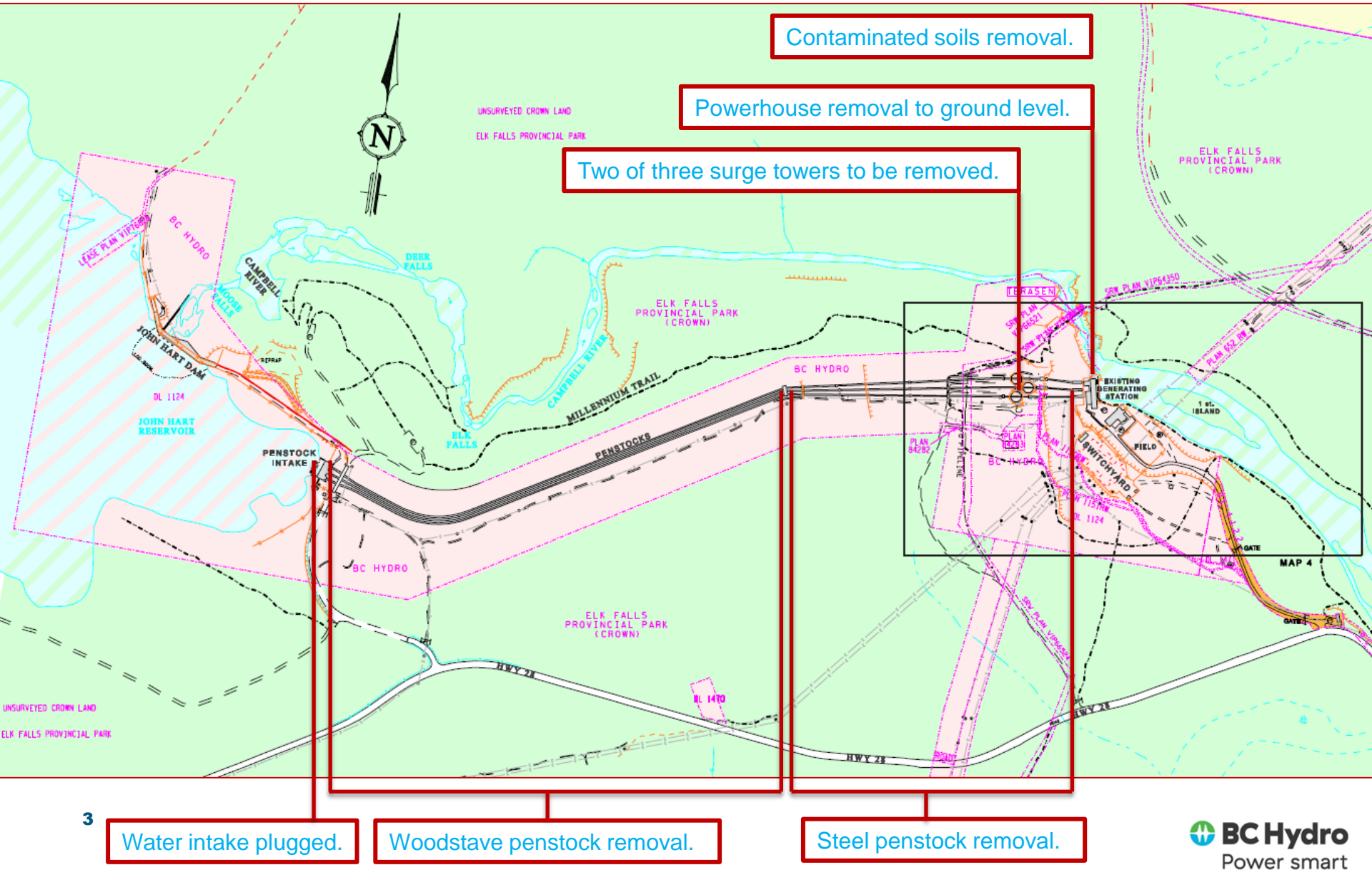
October to November:

- Laydown areas demobilized and remediated;
- Planting throughout the construction corridor;
- Canyon View Trail loop reinstated by the river, including viewing area at the old generating station site; and
- Final clean up at old Campbellton School site.

July photo of the removal of the old powerhouse building beside the Campbell River.



Old John Hart Project Site Map – Planned Decommissioning Works



A July upstream view showing the removed powerhouse building and steel penstocks .



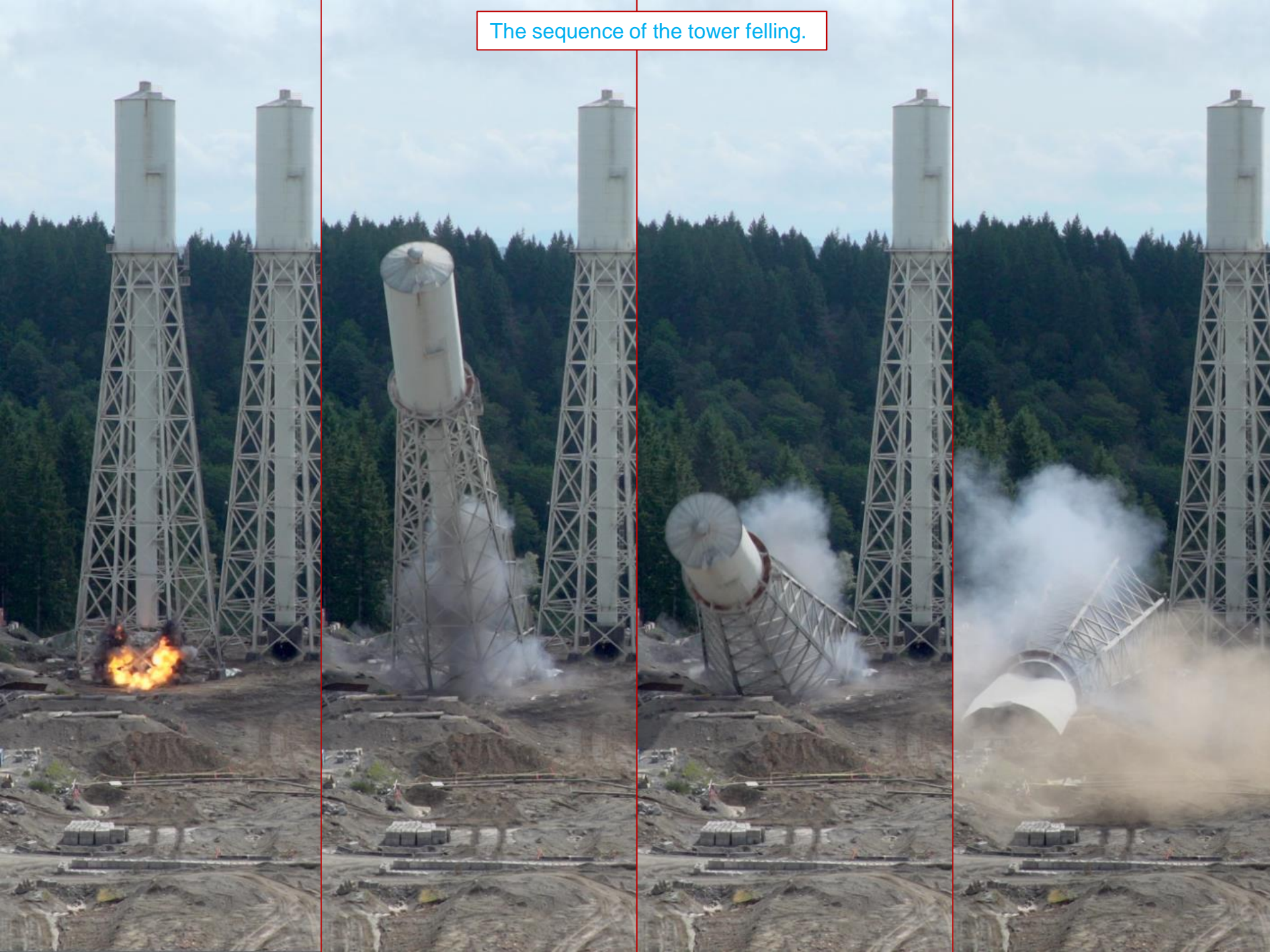
Inset photo shows the last piece of the powerhouse building to be removed.



Final preparations on July 12 for the blast to fell the first of two surge towers.



The sequence of the tower felling.



The successful landing of the surge tower.



View of the tower from the ground. It weighs about 600 tons.



Removal of the steel tower, to be recycled, and the concrete base works.



First surge tower comes tumbling down in controlled explosion

One tower will be left standing as visual aid for aircraft

ALISTAIR TAYLOR
Campbell River Mirror

And then there were two...

The contractor for BC Hydro's John Hart Generating Station project successfully felled one of the three historic surge towers Friday morning.

"At about 10:20 am, we detonated precise explosives attached to some of the base girders of the tower so it directionally fell as planned, similar to a large tree, up the penstock corridor," said BC Hydro spokesperson Stephen Watson.

A 450-metre safety closure radius was put in place around the surge towers, so the two access roads into the site and the surrounding public trails were closed off for the controlled blast event. The contractor InPower BC, with FMI/ASL-JV and subcontractor Pacific Blasting and Demolition leading the actual surge tower removal, obtained a blast permit from the City of Campbell River. People near the site may have heard the blast and wondered what the sound was from.

For the felling process, some of the eight supporting legs of the tower were cut using linear shape charges, with kicker charges used to ensure full metal separation and

displacement.

"We will now remove the felled surge tower, with the steel to be recycled," Watson said. "The second tower may be felled sometime next week."



campbellrivermirror.com

The third (south) tower, while not part of the new hydroelectric facilities, is in good condition and will stay in place given it has communications equipment and is a visual aid to the local airport. There is also the heritage value in keeping one tower in place, Watson said.

At 90 metres or 295 feet tall, for a period of time the surge towers were the highest structures on Vancouver Island. The iconic white towers are visible from certain areas of Campbell River, including from boats on the ocean.

They were in operation from 1947 to 2018, and protected the 1.8-km long penstocks that led from the dam to the generating station from short duration water pressure changes that occur when the flow velocity is increased or decreased. They do this by allowing the water to go up, or conversely come down.

The surge tanks were half-filled with water and at the same elevation as the upstream John Hart Reservoir.

The old John Hart facility was officially shut down last fall and replaced with a new and improved underground hydroelectric facility. The old facility is being removed.

“**THEY SAID IT:** “The second tower may be felled sometime next week.”

– Stephen Watson, BC Hydro



As part of the John Hart decommissioning work, the first of two old surge towers was removed Friday morning. BC Hydro photo

With the removal of the three large (3.66 m diameter) John Hart penstocks, an added benefit is better wildlife movement....like this little bear.



Final preparations on July 25 for the blast to fell the second surge tower.



View from our drone of the July 25, 9:24 am blast.



Blast brings down second tower at John Hart Dam



The second of three surge towers at the 70-year-old John Hart Dam comes down on Thursday morning, when explosives attached to some of the base girders of the centre tower were detonated. The power station has been replaced with a \$1.1-billion generating station. Story, page A4 B.C. HYDRO

Another successful landing of the surge tower.



Comprehensive view of the site, including the removed old powerhouse at the bottom of the photo.



John Hart project contaminated soils, mainly from the 1.8 kilometre long penstock corridor, were sent off of Vancouver Island by barge to an approved disposal facility.





The rough and loose treatment of the soils along the old penstock corridor, which includes woody debris placement, to allow corridor to naturalize and return to forest. Planting started in the fall to allow for better survivability.

View from the pedestrian crossing looking downstream. This is the rough and loose technique, using site soils that are sandy. Woody debris is also placed in various areas.



View from the pedestrian crossing
looking upstream. Planting started in late
September with the wetter weather.



The old steel section of the penstock corridor. Planting is underway.





View from the river of the old powerhouse area and surge tower in the background. Inset photo shows a photo from the old powerhouse of Pink Salmon holding in the old tailrace outlet pool. The Pinks generally hold in the Campbell River before moving up the Quinsam River to spawn.

Restoration work along the old steel penstock corridor.



Canyon View Trail loop to be opened in October

The popular Canyon View Trail loop through the old John Hart powerhouse footprint will be open in October.

Work is also about to begin on decommissioning the temporary Station View Trail in mid-September.

"I've had a few enquiries on when the trail loop may open up," said BC Hydro spokesperson Stephen Watson. "We had a trail geotechnical issue come up when planning to route the trail into the old and remediated

penstock corridor, and decided to move the trail towards the river slightly so its foundation is sound, mainly for the new stairs to be installed. To allow for this change, we are now looking to have the trail loop open around the last half of October. We appreciate the community's patience."

The Canyon View Trail was one of the top community points of interest during the planning for the John Hart Generating Station Replacement Project. BC Hydro built the temporary Station View Trail in 2013, which was modified in 2014 by project contractor InPower BC, to enable trail users to continue to use an overall Canyon View Trail loop during the five years of construction work. Since April of this year, the broader trail loop has been closed through the John Hart property site for the removal of the old hydroelectric facility.

Work to remove and decommission the temporary Station View Trail will begin on BC Parks property and will begin Sept. 16. The trail will be closed off from where the Station View Trail branches off from the Canyon View Trail beside the Campbell River, downstream of the old powerhouse area.

"The revised Canyon View Trail and new public lookout where the old powerhouse used to be should be a wonderful community amenity when finished," said Watson. "I was at the lookout area last week and it's a great view, including seeing directly below a big school of pink salmon holding peacefully in the old powerhouse discharge pool. Within the lookout there will also be five large interpretive panels to describe the old and new facility, operations, fish, and Indigenous Peoples, including the meaning behind the two new



View from the Campbell River of the new lookout area and where the new Canyon View Trail will go up the slope and connect to the existing trail network to the right. BC Hydro photo

totems from the We Wai Kai Nation and Wei Wai Kum Nation that will be placed there."

BC Hydro is also restoring public river access, for river rafts, kayaks and canoes only, below the old powerhouse on the right bank of the river and where Destiny River Adventures currently puts in. Public river access may be re-established in October as well. Originally, people could enter the river near the entrance to the canyon, off a rock outcrop, just upstream of the old powerhouse.

Watson said there will be no swimming, tubing or fishing allowed within the old powerhouse discharge pool because of safety risks from the six old draft tubes and the downstream rocks on the right bank of the river, and to lessen the disturbance to salmon habitat.

"We really hope people obey the signage or we'll have no alternative but to close and lock the gate to the river," added Watson.



The above photo was added to the media story. This shows the approximate lookout area (highlighted) from the hill above.

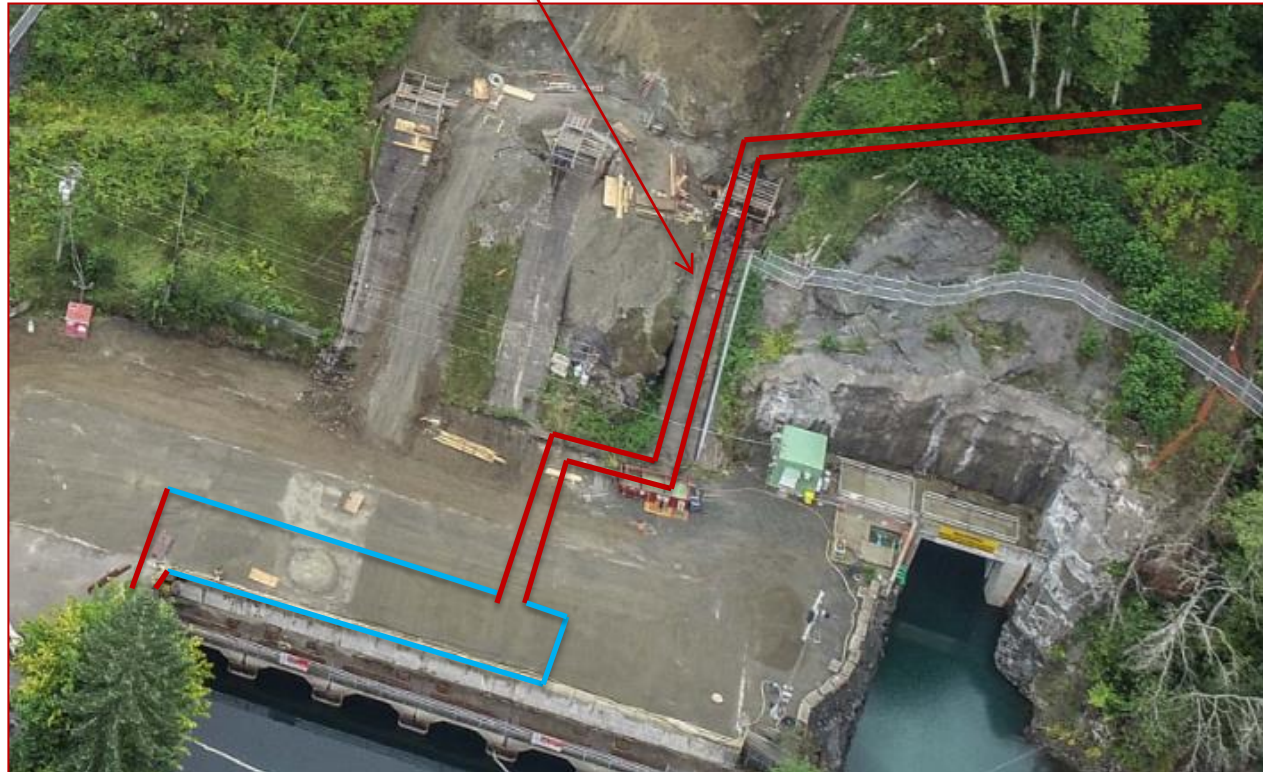
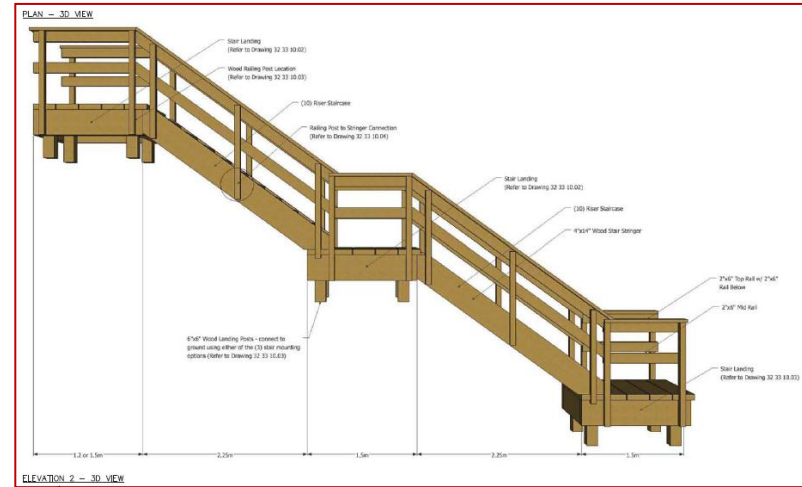
Canyon View Trail design and lookout from the old powerhouse area.

The new trail route, highlighted by the red lines, will go through a fenced area to separate the public area from the operational area. A set of stairs, similar to BC Parks design and as shown on the top right inset diagram, will go up the slope. The trail will then angle up the slope to connect to the existing Canyon View Trail.

A new lookout area, shown with the blue lines, will feature interpretive panels, two First Nation totems, and have some benches.

We hope to have the new trail and lookout area open in late-October or early-November.

The temporary Station View Trail, in place from 2013 to 2019, has been permanently closed for restoration work.



View of the Campbell River from the old powerhouse area. This will be one of the vantages from the new public lookout.



Before: The view of the former commercial river raft put-in that is being made into a broader navigation control watercraft (river rafts, kayaks, and canoes) put-in only. The inset photo shows the after view with the flat rocks in place for access and safety. It is planned to open around late October.





One of the sirens along the Campbell River, with this one placed beside the powerhouse tunnel discharge outlet. BC Hydro photo

BC Hydro continues testing of new Campbell River siren system

BC Hydro's contractor continues to work through the installation of the new public warning system as part of the John Hart Generating Station Replacement Project.

There was a technical issue that has now been resolved following the siren tests on Aug. 28. The next full siren system test, to take place intermittently over the day, is set to take place on Sept. 17 from 9 a.m. to 5 p.m.

BC Hydro has sirens in place from the John Hart Dam down to Second Island, which is a kilometre or so downstream of the new John Hart underground powerhouse tunnel outlet.

BC Hydro says there's occasionally questions in the community when the sirens go off on the difference be-

tween warning people about river flow changes versus the safety of the upstream dams.

"The sirens are only intended to provide facility operational warnings of sudden water flow changes or unplanned water flow changes from the dam's spillway gates or low level outlets, or from the powerhouse tunnel outlet," said BC Hydro spokesperson, Stephen Watson.

"This warning is for people who are within the river channel either swimming, fishing, rafting, kayaking, or walking or standing near the water flow. The sirens, which have a whooping sound, advise people to move out of the river channel immediately until the increased water flow passes by."

BC Hydro says once the new siren system is approved

and in place, they will occasionally test the system to continue to ensure it is working as intended. BC Hydro will notify the community when the new sirens are officially commissioned.

"We appreciate people's patience as we work through the testing period," says Watson. "It's very important that they all work as designed. While we try to notify people of the planned tests, we also need to be clear that there is a rare chance of an unplanned water flow event from the John Hart facility during a test. When the sirens are heard during a planned test, people should move out of the river channel. On Sept. 17, it may be best to stay away from the Campbell River and do other activities."

As for the three upstream hydroelectric dams, Watson says day-to-day, the dams are safe and BC Hydro has an extensive Dam Safety Program, including ongoing monitoring.

He added it is only a severe earthquake that could put the upstream dams at risk, and that's why BC Hydro, the City of Campbell River, and Strathcona Regional District developed a 'If it knocks you down, go to high ground' message.

The severe ground shaking is the only warning people may receive, as the sirens are not an earthquake or dam awareness warning system.

BC Hydro has a series of proposed seismic upgrade projects at all three dams that may all begin as early as 2023/2024.

The sirens system tests on September 17 went well and the new siren system is now fully commissioned.

The John Hart Generating Station Replacement Project, from 2014 to the end of August 2019, has achieved 3.7 million person hours of work without a lost time incident. We are all very proud of this achievement.

Thank you for following along.

