

# East Kootenay Community Relations 2020 Annual Report

Fall 2020

A transmission line in Wycliffe, outside Cranbrook, passes through a field of wildflowers.

## Mountaintop locations in the Elk Valley help us communicate with our substations remotely

BC Hydro is making improvements to telecommunications equipment in the Elk Valley. A project at Natal Substation in Sparwood, Morrissey Ridge microwave station south of Fernie, and a remote mountaintop location northwest of Sparwood will improve communications between our facilities in the East Kootenay, and our central operations centre in the Lower Mainland. It's a \$6.5 million project that addresses telecom deficiencies and helps us meet Western Electricity Coordinating Council class requirements.

At Natal, the project includes upgrading equipment inside the substation's control room and constructing a new 12-metre-high microwave tower within the footprint of the existing substation. The tower is roughly the same height as the tallest equipment that is currently inside the substation. Construction began in June 2019 and ran throughout last summer. While the bulk of the work was completed in fall 2019, crews wrapped up the project at Natal in July 2020.



The updated passive reflector north of Sparwood. A passive reflector is a large reflective panel that helps to complete a microwave link when there are obstacles in the path. In this case, mountains block the direct path between Natal Substation in Sparwood and Morrissey Ridge, south of Fernie.



Crews work to install a microwave on the newly installed tower at Natal Substation.

### Powered by Water

BC Hydro provides clean, reliable and affordable electricity to British Columbians. We generate 96% clean energy for the province, giving us a hydro advantage.

The project also includes work at a remote mountaintop site about seven kilometres northwest of Sparwood. BC Hydro purchased a passive reflector site from Telus and upgraded the reflector to meet our requirements. Construction at the passive reflector site was completed in September 2019.

The telecommunications project will also include upgrades at BC Hydro's Morrissey Ridge substation south of Fernie. An existing microwave tower at Morrissey Ridge will be increased in height from 12 metres to 14 metres and we'll add fencing around the tower. Construction took place last summer, with crews returning in July 2020 to complete the fencing.



The microwave tower at Morrissey Ridge, south of Fernie, was extended in height by two metres.

## Message from Chris O’Riley, President & CEO



Hi everyone,

BC Hydro is pleased to share our Community Relations annual report highlighting some of our work in your region. We’re proud to serve communities and their elected representatives in all parts of the province.

While our annual report looks back at the fiscal year ending March 31, 2020, I want to start by recognizing the unprecedented time we’re currently in. COVID-19 has touched all of us in some way. Like many of you, at BC Hydro we’ve had to adjust our plans to ensure the safety

of our employees, contractors and communities. What hasn’t changed is our commitment to adapting so that we can safely provide you with the electricity our communities rely on.

BC Hydro continues to invest approximately \$3 billion per year in our system to ensure it is there to support British Columbia’s growing population and economy. We have the important responsibility to keep electricity rates affordable for our customers, while funding these necessary investments in our electricity system. To support this goal, we implemented the outcomes from Phase 1 of the Comprehensive Review of BC Hydro and continued to make all reasonable efforts to limit rate increases. We have also advanced affordability initiatives to help our customers save money on their electricity bills and continued to focus on making it easier for our customers to do business with us.

We’re working with the Province on Phase 2 of the Comprehensive Review to strategically position BC Hydro for long-term success, while meeting the Province’s climate goals, keeping rates affordable, furthering reconciliation with Indigenous Peoples and supporting quality economic development. The actions taken as part of the Phase 2 Review will support the government’s CleanBC plan, including expanding the electrification of our growing economy over the coming decades.

Within this report, you’ll find many examples of how we’re working with your communities on a range of topics – from capital projects and corporate programs, to initiatives like the Integrated Resource Plan (Clean Power 2040). This report also includes some important indicators of how we’re doing in providing you with reliable power.

Specifically in the East Kootenay region, we’re carrying out projects to convert the voltage of distribution feeders. This will help us stay ahead of load growth in the region, and remove equipment that is out of date.

We’re proud of our accomplishments this year. We’ll continue to work closely with you on a daily basis to meet the needs of your community. If you have any questions, please contact our Community Relations representatives in your region. We’d be pleased to help.

Sincerely,

Chris O’Riley  
President & CEO  
BC Hydro

### Quick Facts

#### PROVINCE-WIDE:

4 million customers

Electricity is delivered through a network of:

- 79,000 kilometres of transmission and distribution lines
- over 300 substations
- 1 million plus utility poles

Capital investments of approximately \$3 billion a year

#### EAST KOOTENAY DAMS AND GENERATING STATIONS:

##### Aberfeldie

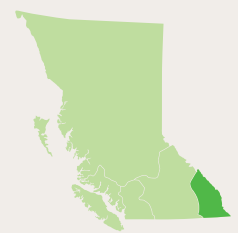
25 megawatts capacity

##### Elko

12 megawatts capacity

##### Spillimacheen

4 megawatts capacity



## Site C Update

Site C will be a third dam and hydroelectric generating station on the Peace River in northeast B.C. Construction started more than five years ago, in July 2015.

During the fifth year of construction, activities accelerated substantially in all project areas, particularly the roller-compacted concrete placement work on the spillways buttress and the activities required in advance of river diversion in fall 2020. Work also advanced along the Highway 29 realignment, transmission line corridor and in the future reservoir area.

The project reached several milestones this past year, including:

- river diversion was successfully achieved on October 3, 2020, which involved opening the two diversion tunnels and completing the rockfill berm across the Peace River
- the temporary fish passage facility is now operational
- the Site C Substation and one of two 75-kilometre-long transmission lines that run between Site C and the Peace Canyon Substation were energized in October 2020
- the roller-compacted concrete buttress for the Site C spillways was completed in October 2019; work continues on the buttress for the dam core
- powerhouse construction advanced and penstock installation began; to date, one of six penstock units are complete
- work advanced on all sections of the Highway 29 realignment

BC Hydro also delivered on several commitments in the region this year. We continued to provide grants to support non-profit organizations in the Peace region through the Generate Opportunities (GO) Fund; as of September 2020, \$487,000 had been distributed to 55 projects. We distributed the first funds from our \$20 million Peace Agricultural Compensation Fund; as of March 2020, \$400,000 had been distributed to 16 projects.

For more information on Site C, please select [sitecproject.com](http://sitecproject.com).



The Site C project achieved river diversion in October 2020.

## Clean Power 2040 – Building a bright electricity plan for B.C.

Clean Power 2040 is our province-wide, long-term resource planning process. Engaging with you will help us make informed strategic decisions to meet future electricity demand. These decisions will become part of our next Integrated Resource Plan (IRP).

Over the next year, through Clean Power 2040, we'll be looking at options for our power system over a 20 year horizon.

### JOIN US AS WE EXPLORE B.C.'S CLEAN ELECTRICITY FUTURE.

- What should we do to meet everyone's electricity needs over time?
- How should BC Hydro meet the demand for electrification?
- What new technology could support our power systems?

We already have one of the cleanest renewable power systems in the world, but our ability to meet your needs now and in the future depends on different assets and factors. This includes our power stations, power lines, conservation initiatives and our understanding of potential demand.

Through Clean Power 2040, we're gathering input from customers, Indigenous communities, regulators and governments. We're also looking at technical, financial, environmental and economic development considerations. Your forward-thinking input alongside those factors will help us draft actions.

### Five Fast Facts on Clean Power 2040

- BC Hydro must submit an Integrated Resource Plan (IRP) to the B.C. Utilities Commission.
- The IRP is a plan for our power system over the next 20 years.
- The IRP is structured to look at early years (now to approximately 2030) and the remaining years to 2040.
- Engagement with Indigenous communities, our customers, and our future customers is key.
- Clean Power 2040 kicked off in September and will take one year to complete.

Sign up for our updates, and learn more about participating in the Clean Power 2040 consultation process that started this fall, by selecting [bchydro.com/CleanPower2040](http://bchydro.com/CleanPower2040).



# Regional information

## Capital projects

### SPILLIMACHEEN AND CANAL FLATS VOLTAGE CONVERSION PROJECTS

As part of a multi-year initiative, we're carrying out projects to convert the voltage of distribution feeders in the East Kootenay region. This will help us stay ahead of load growth in the region, and remove equipment that is out of date.

In the northern part of the region, we're replacing equipment and poles on a distribution line between Radium and Parson. We're upgrading 50 transformers and replacing or reframing 140 poles. The project will swap all 12 kilovolt (kV) equipment for 25 kV class equipment.

After the upgrades, the distribution line will be fed from Radium and Parson substations and we'll decommission Spillimacheen Substation, which is located at the Spillimacheen Dam.

Elsewhere, we're converting a distribution line that runs between Columere Park, south of Fairmont, and the turnoff to Whiteswan Provincial Park, south of Canal Flats. All 12kV equipment will be replaced with 25 kV class equipment, and we'll replace 30 poles.

These projects have a combined budget of \$2.3 million, and will be carried out over the next three years.



Powerline technicians work to swap out an end-of-life pole in Cranbrook in June 2020.

### NATAL SWITCHYARD PROJECT

Another, larger project at Natal Substation outside Sparwood is getting underway. We're replacing the 60 kV and 138 kV switchyards at Natal because they are reaching their end of life and we need to improve voltage connections to meet growth in electricity demand. Built in the 1960s, the wood pole structures and major electrical equipment need to be replaced.

A location for the new switchyard was chosen in June 2020, just south of the existing substation's fencing. Now we're putting together detailed designs, which we expect to be completed by December 2021. That will clear the way for construction to begin in spring 2022. The expected in-service date for the new switchyard is December 2024.

The switchyard delivers power to Teck's coal operations in the Elk Valley, and the project will improve reliability for these customers.



Built in the 1960s, the switchyard at Natal Substation outside Sparwood is reaching its end of life and needs to be replaced.

# Supporting communities

## Trees and vegetation management

Our electrical system is complex and highly efficient, with over 79,000 kilometres of overhead transmission and distribution power lines throughout the province. Managing trees and plants around these lines is important for safety and service reliability.

Our vegetation management team regularly inspects trees and other tall vegetation growing under or adjacent to our overhead system to identify potential problems. Tall, diseased or dead trees can fall or grow into power lines, causing electrical outages.

Vegetation management contractors – we employ professional arborists and foresters that follow strict environmental guidelines – prune or remove trees and vegetation in areas where the lines may be impacted. What’s more, when an area experiences reliability issues, we assess the local distribution lines for potential tree-related causes. Even with a proactive management program, more than half of all outages in B.C. are caused by trees. For more information, please select [bchydro.com/trees](https://bchydro.com/trees).

## Community ReGreening Program

Our Community ReGreening Program helps fund urban tree planting that’s related to visual aesthetics and environmental enhancements. We pay for seedlings, medium and large trees in cities and towns across B.C. Over the past 20 years, we’ve funded the planting of more than 300,000 trees.

We partner with local communities and Tree Canada to help make sure appropriate trees are planted around power lines, while enhancing open spaces. The program is intended for small-scale community projects and is open to local governments served by BC Hydro. All applications need to be received by January 31, to be eligible for funding within the same year. For more information, please select [bchydro.com/regreening](https://bchydro.com/regreening).



The City of Kimberley received a ReGreening grant to plant trees at its new spray park in 2019.

Successful applications included:

Community	Project	Funding
Canal Flats	Gateway Beautification – Grainger Road South	\$3,700
Elkford	Downtown Core Beautification and Park Shade	\$2,500
Golden	Re-Planting Initiative	\$3,060
Invermere	Downtown Revite/Community Infill Planting Program	\$5,000
Kimberley	Downtown and Park Beautification Project	\$1,320
Radium Hot Springs	Tree Enhancements 2020	\$3,300
Sparwood	Spruce Place Greening Project	\$4,800





## Beautification Fund

Our Beautification Fund provides financial assistance to municipal governments to relocate BC Hydro equipment on public property. We co-fund projects to move overhead lines and poles to underground duct banks as part of community redevelopment plans or to enhance and improve the use of public spaces. Previous projects have included high traffic areas and community venues such as town centres, parks, commercial districts, civic facilities, and bike lanes.

Select [bchydro.com/beautification](https://bchydro.com/beautification) for more information and to apply. Applications must be submitted by September 30 to be considered for the following year.

## Decorative Wrap Grant Program

Our Decorative Wrap Grant Program provides financial assistance to municipal governments looking to improve the visual aesthetics of a neighbourhood by installing decorative wraps on BC Hydro-owned pad-mounted equipment boxes. Eligible applicants can receive grant funding of \$350 or \$700 per unit, depending on the size of the equipment box to be wrapped. The funding amount will be determined by BC Hydro during the application review.

The application closing date for each year is September 30. For more information, please select [bchydro.com/wrap](https://bchydro.com/wrap).



Example of a decorative wrap on our pad-mounted equipment.



BC Hydro crews remove overhead infrastructure during the Golden dike improvement project in April 2020.

## Fish & Wildlife Compensation Program

The Fish & Wildlife Compensation Program (FWCP) is a partnership of BC Hydro, the Province of B.C., Fisheries and Oceans Canada, First Nations, and public stakeholders, to conserve and enhance fish and wildlife in watersheds impacted by BC Hydro dams.

One project the FWCP is funding is in the ʔaq'am community near Cranbrook to turn a dense Douglas-fir forest into open range and open forest. The five-year project will benefit flammulated owls, long-billed curlews, Lewis's woodpeckers, common nighthawks, yellow badgers and many other species.

The community of ʔaq'am, which is leading the project, has completed planning, mapping, an archaeological overview assessment, and has identified 725 wildlife trees to be conserved. They've also conducted an inventory of a species-at-risk – the fringed myotis bat – a provincially Blue-listed species with very few previous records in the East Kootenay. In addition, extensive flammulated owl activity was recorded, and project biologists believe that the area may be the only location where these at-risk birds reside in the East Kootenay west of the Kootenay River.

Since 1995, the FWCP's Columbia Region has funded approximately \$105 million toward local fish and wildlife projects. Learn more at [fwcp.ca](https://fwcp.ca).

For information on Community Engagement Grants – which are typically \$500 to \$1,000 and help stewardship groups and others take action to benefit local fish and wildlife – please select [fwcp.ca/community-engagement-grants/](https://fwcp.ca/community-engagement-grants/).



Lewis's woodpecker (iStock/BirdImages)

## Grants-in-lieu

We pay net property tax and grant payments to local governments. The grant program is a provincial government initiative and the amounts paid are determined under the current legislation. Listed below are the grants paid to each community in the East Kootenay region as of June 30, 2020.

Municipality/District	School Taxes*	Grants	Other Taxes	Total Payments
Village of Canal Flats	\$16,013.87	\$12,415.11	\$1,028.00	\$29,456.98
City of Cranbrook	\$144,862.87	\$324,952.85	\$1,051.85	\$470,867.57
Regional District of East Kootenay	0	\$86,064.00	0	\$86,064.00
District of Elkford	\$41,883.63	\$196,900.96	0	\$238,784.59
City of Fernie	\$89,095.40	\$147,602.34	\$825.26	\$237,523.00
Town of Golden	\$70,756.78	\$142,932.05	\$1,328.60	\$215,017.43
District of Invermere	\$17,056.27	\$62,339.43	0	\$79,395.70
City of Kimberley	\$51,925.51	\$70,209.91	0	\$122,135.42
Village of Radium Hot Springs	\$28,080.95	\$55,881.38	0	\$83,962.33
District of Sparwood	\$245,147.73	\$268,552.44	0	\$513,700.17

\* Local governments collect school taxes which are then forwarded to the provincial government to help fund school districts.

## Community grants

By providing power to the people and businesses of this province, we provide an essential and important service. We also believe in doing more than that: we offer two types of grants to support non-profit organizations and registered charities that are making a difference in their communities. This year, we supported nearly 80 community-based projects across every region of the province.

Our grants are given out in three focus areas: building the workforce of tomorrow, safety education, and developing smart energy ideas. When planning for your project, please keep in mind that our grants have set criteria and application deadlines. To learn more, please select [bchydro.com/grants](https://bchydro.com/grants).

Some of the organizations that we supported in the region this past year included:

Organization	Project	Community	Grant
Mainstreams Environmental Society	Mainstreams Goes Distance Education	Region-wide	\$8,000
Columbia Basin Environmental Education Network	Wild Voices for Kids	Region-wide	\$5,000
Living Lakes Canada	Growing STEM in Community-Based Water Monitoring	Region-wide	\$4,000
East Kootenay Regional Search and Rescue Society	High Angle Redirect System	Region-wide	\$3,000
Cranbrook and District Search and Rescue Society	Helmets and Harnesses Replacement Initiative	Cranbrook	\$2,000
Groundswell Network Society	Groundswell Online Program Project	Invermere	\$2,000
Senior Citizens Club of Fernie & District	Fernie Seniors Centre Energy Efficiency Upgrades	Fernie	\$2,000
Wasa Recreation Society	Wasa Community Hall Energy Improvements	Wasa	\$2,000
Wildsight	Teach The Columbia	Region-wide	\$2,000
Blue Lake Forest Education Society (Columbia Outdoor School)	Adopt a Creek	Cranbrook	\$2,000

continued on next page



## Community grants continued

Organization	Project	Community	Grant
<b>Rocky Mountain Business Development Centre Society</b>	YXC Makerspace Safety Equipment	Cranbrook	\$2,000
<b>Meadowbrook Community Association</b>	Meadowbrook Environmental Education Program	Kimberley	\$1,000
<b>Columbia Lake Stewardship Society</b>	Executive Director Implementation Project	Columbia Valley	\$1,000
<b>East Kootenay Regional Science Fair</b>	Science Fair 2021	Region-wide	\$1,000
<b>Elk River Alliance</b>	Elk River Summer Camps	Elk Valley	\$1,000
<b>Wildsight Elk Valley</b>	Little Sprouts	Fernie	\$1,000
<b>Triangle Women's Institute</b>	Energy Education	Grasmere	\$1,000
<b>Wasa Volunteer Fire Prevention and Suppression Group</b>	Fire Trailer Suppression Equipment	Wasa	\$750
<b>Interact Club of Golden</b>	Community Connections Family Trivia Night	Golden	\$500
<b>Valley Riders – Sparwood Society</b>	2020 Vision	Sparwood	\$500



Columbia Lake Stewardship Society conducted tours of the Columbia River headwaters to educate the public on ecosystem health. The society received a \$1,000 grant from BC Hydro in 2019, and a \$1,000 grant in 2020.



Kimberley school students took part in environmental education field trips at McGinty Lake in 2019, through a program by Meadowbrook Community Association which received a \$1,000 grassroots grant in 2019 and a \$1,000 grant in 2020.



# Reliability performance



We recognize how important the reliable supply of electricity is to our customers. We'll continue to improve, reinforce and maintain the electrical system.

The information below provides a comparison between Fiscal 2019 and Fiscal 2020 for communities in the East Kootenay region. These statistics include interruptions due to planned outages.

Community	Fiscal 2019 Average customer interruption duration (hours)	Fiscal 2020 Average customer interruption duration (hours)	Fiscal 2019 Average number of interruptions per customer	Fiscal 2020 Average number of interruptions per customer
Canal Flats	0.89	1.44	3.00	8.12
Cranbrook	2.13	2.25	1.46	1.96
Elkford	1.45	3.52	2.04	7.21
Fernie	1.29	2.75	4.84	2.69
Golden	2.80	2.81	1.76	6.26
Invermere	0.84	1.66	2.82	2.39
Kimberley	1.83	1.68	3.77	3.20
Radium Hot Springs	0.87	2.53	2.80	3.10
Sparwood	1.58	1.87	2.60	0.38



Hall Lake repeater station, in the mountains west of Kimberley, has a breathtaking view. Photo courtesy of Richard Jess.



Located in Cranbrook's industrial area, Joseph Creek Substation provides power to 1,200 customers. Photo courtesy of Sally Masters.

# BC Hydro Community Relations

At BC Hydro we build strong relationships to support the unique needs and strengths of the communities we serve. Our Community Relations team does this by listening, providing information and working together with communities. We're the point of contact for local government, media, local business and community groups. Whether it's for capital projects, corporate initiatives and programs, local BC Hydro activities, significant planned outages, emergency response or unplanned power outages, we work hard to meet the needs of our stakeholders and ensure communities are kept informed.

## East Kootenay

If you have questions or comments for us, please contact:

Dag Sharman Manager 250 549 8531 dag.sharman@bchydro.com	Sally MacDonald Public Affairs Officer 250 489 6841 sally.macdonald@bchydro.com	To report a power outage call:  1 800 BCHYDRO (1 800 224 9376) or *HYDRO (*49376) from your mobile phone.
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## BC Hydro guide for local government

Quick access to key information on [bchydro.com](http://bchydro.com)

My Hydro and Energy Savings initiatives	
<b>My Hydro</b> <a href="http://bchydro.com/myhydro/">bchydro.com/myhydro/</a>	Log in to manage your account.
<b>Energy Savings Programs</b> <a href="http://bchydro.com/energysavings">bchydro.com/energysavings</a>	Learn how you can be smart with your power. Take advantage of rebates and programs.
Projects	
<b>Capital Projects</b> <a href="http://bchydro.com/projects">bchydro.com/projects</a>	Learn more about major projects taking place in your region.
Programs	
<b>Beautification fund</b> <a href="http://bchydro.com/beautification">bchydro.com/beautification</a>	Find out more about our beautification program that provides financial assistance to municipal governments for conversion of overhead to underground facilities.
<b>Decorative Wrap Grant Program</b> <a href="http://bchydro.com/wraps">bchydro.com/wraps</a>	Learn about our program that provides financial assistance to municipal governments looking to install decorative wraps on BC Hydro pad-mounted equipment boxes.
<b>Community ReGreening Program</b> <a href="http://bchydro.com/regreening">bchydro.com/regreening</a>	The regreening program assists municipalities with urban tree planting while helping to make sure appropriate trees are planted around power lines.
Community Giving	
<b>Grants for community groups</b> <a href="http://bchydro.com/grants">bchydro.com/grants</a>	Learn about our grants for community groups and how to apply for them.
<b>Scholarships &amp; Endowments</b> <a href="http://bchydro.com/scholarships">bchydro.com/scholarships</a>	We look to build the next generation of engineers, electricians, and many other key roles who will help us deliver clean energy to our customers. Learn about our scholarships and endowments.
Electric vehicles	
<b>Fast charging stations</b> <a href="http://bchydro.com/ev">bchydro.com/ev</a>	Learn more about how clean and affordable power makes B.C. a great fit for electric vehicles.
Report an outage	
<b>How to report a power outage</b> <a href="http://bchydro.com/outages">bchydro.com/outages</a>	Check the outage map or list to see if we know your power is out. If not, call us at 1 800 BCHYDRO (1 800 224 9376) or *HYDRO (*49376) on your mobile phone to report it.
Report graffiti	
<b>How to report graffiti on our equipment</b> <a href="http://bchydro.com/graffiti">bchydro.com/graffiti</a>	We rely on the public to report graffiti on everything from our pad-mounted transformer boxes to our offices.