



**VILLAGE OF SAYWARD
COUNCIL MEETING AGENDA
January 22, 2019 – 7:00 PM
KELSEY CENTRE GYMNASIUM**

1. Called to Order

2. Public Input (maximum 30 minutes)

Mayor: "Public Input is for the purpose of permitting people in the gallery to provide input and shall be no longer than 30 minutes unless approved by majority vote of Council; each speaker may provide respectful comment on any topic they deem appropriate and not necessarily on the topics on the Agenda of the meeting; the public input opportunity is meant for input and questions and answers. Each speaker may not speak longer than 2 minutes but may have a second opportunity if time permits. Each speaker must not be allowed to speak regarding a bylaw in respect of which a public hearing has been held. For the record please state your name and address."

3. Approval of Agenda.

Recommended Resolution:

THAT the agenda for the Regular Meeting of Council for January 22, 2019 be approved.

4. Minutes of Previous Meetings

Recommended Resolution:

THAT the minutes from the Regular Meeting of Council held on January 8, 2018 be adopted.

5. Petitions and Delegations

- a) Cpl. Kim Graham, Detachment Commander – Sayward RCMP
- b) Alex Turner – Sayward Tourism Committee

6. Correspondence

Recommended Resolution:

THAT the following correspondence be received,

- a) Sayward Policing Report – October to December 2018
- b) Sayward Tourism Committee – Trail Development within the Village of Sayward
- c) Ministry of Education – 2019 Premier's Awards
- d) BC Hydro – Vancouver Island Community Relations 2018 Annual Report/Storm Report

7. Council Reports - None

8. Committee Member Reports – None

9. Mayor's Report – None

10. Old Business – None

11. Staff Reports

- a) Emergency Operations Centre Grant – Report by CAO

Recommended Resolution:

THAT the report from the Chief Administrative Officer be received; and

THAT the application for financial assistance under the Community Emergency Preparedness Fund Grant for Emergency Operations Centre's be authorized for submission to the Union of BC Municipalities; and

FURTHER THAT the Village of Sayward agree to provide management of the grant funds if the application is successful.

12. Bylaws - None

13. Financial - None

14. New Business - None

15. Public Question Period (maximum 15 minutes)

Mayor: "The purpose of the public question period is to permit people in the gallery to ask questions about the issues discussed by Council during the meeting. Speakers will be allowed to ask one question each. If time permits, after everyone has had an opportunity to ask questions, speakers will be allowed to ask a second question. For the record, please state your name and address."

16. In-Camera

In accordance with Section 92 of the *Community Charter*, this Council meeting will be closed to the public in order that Council may give consideration to matters in accordance with Section 90 (1)(k) negotiations and related discussions respecting the proposed provision of a municipal service that are at their preliminary stages and that, in the view of the council, could reasonably be expected to harm the interests of the municipality if they were held in public.

17. Rise

18. Adjournment

Recommended Resolution:

THAT the Regular Meeting of Council for January 22, 2019 be adjourned.



**VILLAGE OF SAYWARD
MINUTES
REGULAR COUNCIL MEETING
January 8, 2019 – 7:00 PM
KELSEY CENTRE GYMNASIUM**

Present: Acting Mayor Bill Ives
Councilor Joyce Ellis
Councilor Norm Kirschner
Councilor Wes Cragg

In Attendance: Paul Carver, Chief Administrative Officer

Absent: Mayor John MacDonald (authorized)

1. Call to Order

Meeting was called to order at 7:00 PM

2. Public Input (maximum 30 minutes) - None

3. Approval of Agenda

MOTION R19/01

MOVED AND SECONDED

That the agenda for the Regular Meeting of Council for January 8, 2019 be adopted.

CARRIED

4. Minutes of Previous Meetings

MOTION R19/02

MOVED AND SECONDED

That the minutes from the Regular Meeting of Council held on December 18, 2018 be adopted.

CARRIED

5. Petitions and Delegations – None

6. Correspondence

MOTION R19/03

MOVED AND SECONDED

That the following correspondence be received,

MOTION R19/04

MOVED AND SECONDED

- a) Federation of Canadian Municipalities (FCM) – Membership Renewal

That the Village renew its membership with FCM in the amount of \$270.27 for 2019-2020.

CARRIED

CARRIED

7. Council Reports - None

8. Committee Member Reports – None

9. Mayor’s Report – None

10. Old Business – None

11. Staff Reports

- a) Approval to attend Capilano University PADM 202 Course in Cowichan Bay– Report by CAO

MOTION R19/05

MOVED AND SECONDED

THAT the Chief Administrative Officer be authorized to attend the Capilano University PADM 202 “Local Government Finance in BC” course in Cowichan Bay on January 11 & 12, February 8 & 9 and March 8 & 9, 2019 at an estimated cost of \$3,000.

CARRIED

- b) Amended 2019 Financial Plan Council Meeting Schedule – Report by CAO

MOTION R19/06

MOVED AND SECONDED

THAT Council approve the 2019 meeting schedule as amended to review the 2019 Financial Plan, and that the meeting schedule may be changed accordingly to satisfy the requirements of the Community Charter respecting financial planning and accountability. The amendment was required to eliminate a conflict with another function scheduled for Tuesday evenings.

CARRIED

- c) Investing in Canada Infrastructure Program – Rural and Northern Communities Grant Opportunity – Report by CAO

MOTION R19/07

MOVED AND SECONDED

THAT the report from the Chief Administrative Officer be received; and

THAT the Council for the Village of Sayward supports an application to the Investing in Canada Infrastructure Program – Rural and Northern Communities grant program to purchase two generators to operate the Village’s sewer lift stations during a power outage, and further

THAT the Council for the Village of Sayward supports the project and commits to its share of any ineligible costs or cost overruns associated with the project as currently provided for in the 2019 financial plan.

CARRIED

12. Bylaws

- a) Council Remuneration Bylaw No. 443, 2018

MOTION R19/08

MOVED AND SECONDED

THAT Council Remuneration Bylaw No. 443, 2018 be given fourth and final reading.

CARRIED

13. Financial – None

14. New Business - None

15. Public Question Period (maximum of 15 minutes) – None

16. In-Camera - None

17. Rise

18. Adjournment

MOTION R19/09

MOVED AND SECONDED

That the Regular Council Meeting of January 8, 2019 be adjourned.

CARRIED

The meeting was adjourned at 7:18 PM

Acting Mayor Bill Ives

Chief Administrative Officer



Sayward Policing Report

Royal Canadian Mounted Police
Gendarmerie Royal du Canada

To: Mayor, Council, and Regional District

Policing Report for October - December 2018

Dear Mayor MacDonald and Councilors, Regional District Representative,

Please find enclosed the policing report which reflects the crime statistics for the months of October to December 2018. During these months, Sayward RCMP had a total of 151 calls for service, up from 98 for the same time period last year. Total calls for service for Year to Date is 523, down from 526 for same reporting period of 2017.

Report statistics October to December:	Village	Rural
Assaults: 6	2	4
B&E Business/Residence/Other: 1	1	0
Threats/Criminal Harassment: 6	1	5
Thefts (Over/Under): 2	1	1
Theft of Motor Vehicle: 1	0	1
Mischief (Over/Under): 6	0	6
Mental Health Act: 7	3	4
Impaired Driving / Dangerous Driving/IRP: 5	0	5
Other Driving complaints (Speeding, erratic driving etc.): 10	2	8
Motor Vehicle Collisions: 21	0	21
Small Vessel / Fisheries/Canada Shipping Act: 2	0	2
Animal/Wildlife Act: 9	2	7
Missing person/Search and rescue: 4	0	4
Sudden death: 5	2	3
Alcohol/Drugs: 2	0	2
Cause Disturbance/Breach of Peace: 5	3	2
Assist Other Agencies: 12	6	6
Fraud: 2	2	0
Suspicious Per/Veh/Occ: 5	2	3
Abandoned Vehicles: 4	0	4

Traffic Stats for the period:

- 36 written Warnings
- 13 written Violation Tickets
- Impaired Driving as a result of a Motor Vehicle Accident
- 90 Day Immediate Roadside Prohibition
- 24-hour Roadside Prohibition

Community Interactions:

- Halloween members drove/walked around handing candy out to the children trick or treating
- Members participated in Remembrance Day ceremony

Boat Patrols for the period:

- 3 vessel patrols along the coast and inlets. No calls for service on the coastal waters.

Significant files and police interactions:

- Winter Storm 2018

Staffing:

- Detachment is fully staffed with 3 members
- Currently do not have a detachment clerk, in the process of hiring a casual, with the hopes to hire a full time clerk in the near future.

Sincerely,

Cpl Kim GRAHAM
Detachment Commander
Sayward RCMP
2019-01-17

Delegation to Sayward Village Council

7:00 pm January 22, 2019

re:- proposal for trail development within the Village of Sayward
from: Sayward Tourism Committee

The Sayward Tourism Committee has adopted a multi-year plan to enhance tourism in the Sayward Valley and Village. Four goals were established for the first year including events on the wharf, the information booth on the highway junction, improved electronic presence and improvements in trails in this area.

The Tourism Committee will continue to work toward enhanced trails and signage in Area A of the Strathcona Regional District. We are hoping that the Village of Sayward will work with us to enhance usage of trails that originate in the Village.

We are aware that the area above the residential settlement but within the Village is privately owned by Island Timberlands. ***We are interested to know what powers the Village has in regard to land use regarding this property within the municipality.*** We understand that at present the option of developing trails through that area poses additional difficulties.

The Kelly's Bridge Trail through the estuary area provides an excellent opportunity for enhancement of use by local residents and visitors. At present the access to the trail is by way of the Salmon River Main but there is no signage directing visitors to the trail head. ***Can the council negotiate with Western Forest Products to provide a sign that will direct visitors toward the trail head?*** Possible future conflict regarding public use of the Salmon River Main suggests that a better long term solution should be sought.

The property located between Sayward Road and the Salmon River Main adjacent to the Kelly's Bridge trail head is designated park on your land use plan and is owned by The Nature Trust of B.C. This location could provide an opportunity for appropriate development including:

- a trail access to the Kelly's Bridge trail from Sayward Road
- further trail development
- parking
- prominent signage
- an open air interpretive kiosk
- additional interpretive materials along the trails
- establishment of handicap friendly status

We are requesting that the Village work together with the Tourism Committee and the Nature Trust of B.C. to further this project.



January 7, 2019

Ref: 207062

To Mayors:

I am pleased to announce the launch of the 2019 Premier's Awards for Excellence in Education effective today. Following a successful inaugural year for the Awards program this past year, Government is once again proud to recognize the enormous contributions of British Columbia's exceptional teachers, administrators and support staff who are vital to the cultural, economic and social well-being of the province. The Awards recognize all outstanding education professionals who have made exceptional contributions to benefit their school, students and their communities.

The Awards are open to all education professionals within the BC K12 public, independent, band or international school systems. This year, Awards will be given in the following categories:

- Community Engagement
- District Leadership
- Extracurricular Leadership
- Indigenous Education
- Outstanding New Teacher
- Outstanding Support (School Community)
- Outstanding Support (Teaching Assistant)
- School Leadership
- Social Equity and Diversity
- Technology and Innovation

Nominations are now open and are welcomed from all BC citizens, including students, parents, teachers, administrators, trustees and community organizations. The deadline for nominations is March 31, 2019.

Additional information on the Awards, including a downloadable poster and brochure, can be found on the Premier's Awards for Excellence in Education website at www.gov.bc.ca/excellenceineducation.

.../2

Thank you in advance for your participation in promoting the Premier's Awards for Excellence in Education and assisting to ensure that British Columbia's very best receive the recognition that they deserve.

Sincerely,

A handwritten signature in black ink, appearing to read "Rob Fleming". The signature is written in a cursive, flowing style.

Rob Fleming
Minister

Enclosure

Paul Carver

From: Waddell, Lisa <Lisa.Waddell@bchydro.com>
Sent: January 7, 2019 4:56 PM
To: john.macdonald@sawyardvalley.ca
Cc: CAO@saywardvalley.net
Subject: BC Hydro Community Relations Annual Report and Storm Report - Vancouver Island-Sunshine Coast
Attachments: BCH18-1055-CR_2018_AR_VancouverIslandSunshineCoast.pdf; BC Hydro storm report January 2019.pdf



January 7, 2019

Mayor John MacDonald
Village of Sayward

Dear Mayor MacDonald and Council:

Congratulations to you and your council on your recent election. I was hoping to send this congratulatory note earlier, but we had a little wind event in Nanaimo.

The storm hit the Island on December 20 was the worst ever to hit BC Hydro's system. While there may have been stronger storms in the past, such as Typhoon Freda in 1962, nothing did more damage to our system and impacted more customers than this recent event. At its peak, 150,000 -- just over one third -- of our Island customers, were without power. We brought crews in from other parts of the province, Alberta and even Atlantic Canada to help with restoration. By mid-day on December 31 the last customers were restored.

In addition to our Vancouver Island Community Relations Annual Report detailing our work over the past year, I have attached a report on the storm.

Vancouver Island-Sunshine Coast Community Relations team is a small team of just Karla Louwers and I. Throughout the storm event we worked closely with many communities and their emergency staff. Our job is to maintain and build the relationship between your organization and ours.

We are available to assist you in addressing any BC Hydro related issues that are brought to your attention. In the past, we've provided assistance on BC Hydro related matters in your community such as construction projects, vegetation management, outages, and community funding programs.

We recognize the commitment you have made to serve your community and look forward to working with you through this new term.

For more information on our funding programs and support for local governments, please visit <http://www.bchydro.com/community.html>

Again, congratulations on your recent election.

Sincerely,



Ted Olynyk
Manager, Vancouver Island-Sunshine Coast
Community Relations

Attachments

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Vancouver Island–Sunshine Coast Community Relations 2018 Annual Report

October/November 2018

Transmission line work near Kennedy Lake. Photo courtesy of Dylan Martini, BC Hydro Power Line Technician.

Jordan River Hydroelectric System Safety Update

Just north of Victoria, on the west coast of Vancouver Island at the mouth of a river, is an area known as *diitiida* meaning “drifted ashore”; we know it now as Jordan River. Once a thriving community for First Nations, a purchase agreement between BC Hydro and the Pacheedaht First Nation means the area will once again be a gathering place for people of the Pacific Northwest.

The reacquired 28 hectares of land were originally purchased by BC Hydro in response to the release of a 2014 seismic study of its generation facilities across the province. The study revealed that the expected ground motion at Jordan River in an extreme seismic event – an 8 to 9 magnitude earthquake – is much greater than previously thought due to its proximity (about 40 kilometres) to the Cascadia subduction zone. It showed that Jordan River’s seismic hazard risk is three times higher than that of the Lower Mainland, and about double the ground motion hazard of our Campbell River system. This was a significant change in our understanding of the seismic hazard.

Did you know?

BC Hydro’s generating facilities on Vancouver Island can only meet about 20% of the Island’s total demand. About 80% of electricity comes from the mainland through underwater cables.

The Jordan River system includes the Bear Creek, Elliott and Jordan River diversion dams, as well as a generating station. It primarily serves greater Victoria, providing about 10% of electrical supply for Vancouver Island. The generating station does not run continuously, but only as needed to meet peak-use times, when demand for electricity is very high.



Jordan River Diversion Dam and Reservoir.

The dam is one of our more robust facilities in B.C.; however, we’re not aware of any dams – anywhere – in the world that are built to withstand the ground motions expected in the Jordan River system during a massive subduction zone earthquake.

Nonetheless, once aware of the increased risk, we knew we needed to reduce it as much as possible. The highest risk was to permanent residents downstream from the Jordan River Dam. They would have less ability to respond quickly to a major earthquake. We offered to purchase overnight residences in the evacuation zone and all but one of the owners took us up on it. Since the properties have been purchased and rezoned to restrict residential use and development, the level of risk has decreased.

The initial plans of the Pacheedaht First Nation are to develop eco-tourism offerings for the area which will fit with the Zen-infused surfing enclave.

 **BC Hydro**
Power smart

Message from Chris O’Riley, President



BC Hydro is pleased to share our Community Relations annual reports detailing some of our work in your region.

With municipal elections recently completed, I want to start by welcoming new and returning elected officials. We look forward to working with you over the course of your tenure.

We know that affordable, reliable and clean electricity is vital to British Columbia’s economic prosperity and our quality of life. We continue to invest over \$2 billion per year to upgrade aging assets and build new infrastructure to ensure our system is ready to support British Columbia’s growing population and economy.

At the same time, we have an important responsibility to keep electricity rates affordable for our customers. We’re working with the Government of B.C. to keep electricity rates low and predictable over the long-term, while ensuring we have the resources we need to continue to provide clean, safe and reliable electricity. We’ve also enhanced our customer-facing affordability programs, and will continue to focus on making it easier for our customers to do business with us.

Inside this report, you’ll find many examples of how we’re working with your communities. You’ll also find some important indicators of how we’re doing, for example, in providing you with reliable power.

In the Vancouver Island–Sunshine Coast region, we recently completed replacement of the John Hart Generating Station in Campbell River. It now provides enough power for about 80,000 homes. As well, we’re continuing to plan three large projects to keep the Campbell River system dams safe and seismically strong.

With our operations extending to every corner of the province, we’re proud to consider ourselves not just service providers, but also members of your communities. 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 & Chief Operating Officer

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 more than \$2 billion a year

VANCOUVER ISLAND—SUNSHINE COAST GENERATING CAPACITY:

Ash	28 MW
Clowhom	33 MW
John Hart	126 MW
Jordan River	170 MW
Ladore	47 MW
Puntledge	24 MW
Strathcona	64 MW

Others:

IPPs	1077 MW
(566 MW Vancouver Island & 511 MW Sunshine Coast)	

MW = megawatt

IPPs = Independent Power Producers



Site C update

Site C will be a third dam and hydroelectric generating station on the Peace River in northeast B.C. Construction started over three years ago in July 2015, and the project is expected to be completed in 2024.

In late 2017, the project underwent a review by the B.C. Utilities Commission and in December the Government of B.C. approved the continuation of the project.

During the third year of construction, the project expanded into new work areas. This includes advancement of earthworks for the dam and generating station, vegetation clearing and access road construction in portions of the transmission line corridor, construction of the Site C substation, and clearing and road maintenance in the lower and eastern reservoir.

The project reached several milestones in 2018, including:

- the large excavation on the north bank slope has been substantially completed and parts of the dam and powerhouse are starting to take shape on the south bank
- the first diversion tunnel began in late August and work is expected to start on the second diversion tunnel in fall 2018
- the majority of large procurements were completed, including contracts for the generating station and spillway, Site C Substation, transmission line construction, and hydro-mechanical equipment

BC Hydro also delivered on several commitments in the region this year. In February, we launched the \$20 million BC Hydro Peace Agricultural Compensation Fund to support agricultural production and agrifood initiatives in the Peace region. We also continued to provide grants to support non-profit organizations in the Peace region through the Generate Opportunities (GO) Fund.

For more information on Site C, please select sitecproject.com.



The Site C powerhouse buttress and main service bay pad, looking upstream, in August 2018.

Electric vehicle charging stations added to cross-province network

This year, we've added 28 new fast-charging stations to our electric vehicle charging network.

Now drivers of electric vehicles can travel across B.C. from Tofino to the Alberta border. The network is designed to provide drivers with charging options when they need them – helping reduce the 'range anxiety' many drivers feel about long road trips.

BC Hydro's fast-charging network can charge an electric vehicle's battery to 80% in 30 minutes or less. With this infrastructure in place, electric vehicle ownership becomes a feasible option for all residents of B.C. As well, tourists driving electric vehicles can confidently travel across the province to visit our communities.

The number of electric vehicles on our roads is growing – there are currently more than 9,000 in B.C. and that is expected to rise to 300,000 by 2030. Since 2017, we've seen a 63% increase in the number of charging sessions at our stations – more than 22,000 charges between May 2017 and May 2018. This represents around 542,000 kilometres of driving and the equivalent of approximately 138,000 kilograms in carbon dioxide emissions savings.

We've been installing charging stations throughout the province since 2012 with support from the provincial and federal governments and in partnership with municipalities, regional districts and others, like Loblaw's and the first of its kind Accelerate Kootenays initiative. This two-year, \$2.1 million project is the result of an innovative collaboration between local and provincial governments as well as funding agencies that have worked together to address the charging infrastructure gap in the Kootenays.

This year we added 12 new stations in the Lower Mainland, six on Vancouver Island, two along the Coquihalla Highway, and a total of 13 as part of the Accelerate Kootenays network – eight in the East Kootenay and Highway 1, with another five in the West Kootenay owned and operated by FortisBC.

We're now working on stations that will connect drivers from Kamloops north to Prince George, and eventually to Prince Rupert.

Regional information

Capital projects

JOHN HART GENERATING STATION REPLACEMENT COMPLETED

The new John Hart Generating Station is in operation. The project was initiated in 2007 to resolve safety, reliability and downstream fish habitat concerns to a facility that was built in the 1940s. After going through funding and regulatory approvals, InPower BC, our project contractor, started construction in 2014. People working on the project in Campbell River peaked at about 500 in June 2017. It was a massive effort that included a high regard for safety — there were no lost time accidents during about 3.3 million person hours worked.



A July 2018 view from the service tunnel into the powerhouse cavern. Two of the three turbines/generators are the circular works.



View from Campbell River of the tailrace tunnel outlet to the right of the old generating station.

In spring 2018, we started operating the low level outlet valves on the downstream side of the John Hart Dam, and the watering up of the nearly 1.6 kilometre tunnel to the powerhouse, and then downstream of it, the approximate 600 metre long surge chamber and tailrace tunnel that leads to the river.

What's a tailrace?

It is a water outlet, downstream of a dam or generating station, which discharges water that has passed through the turbines to generate electricity.

The new water bypass facility, built within the powerhouse to protect downstream fish habitat with constant water flow should one or more of the turbines go off-line, was also started up in the spring. The first of the three turbine/generators came online in July 2018, with the entire facility up and running by early October.

We transitioned from the old facility to the new one by shutting down the old generators one at a time starting in October 2017, through to October 2018. We had key members of the community officially shut them down, including City of Campbell River Mayor and Council and our community liaison committee.

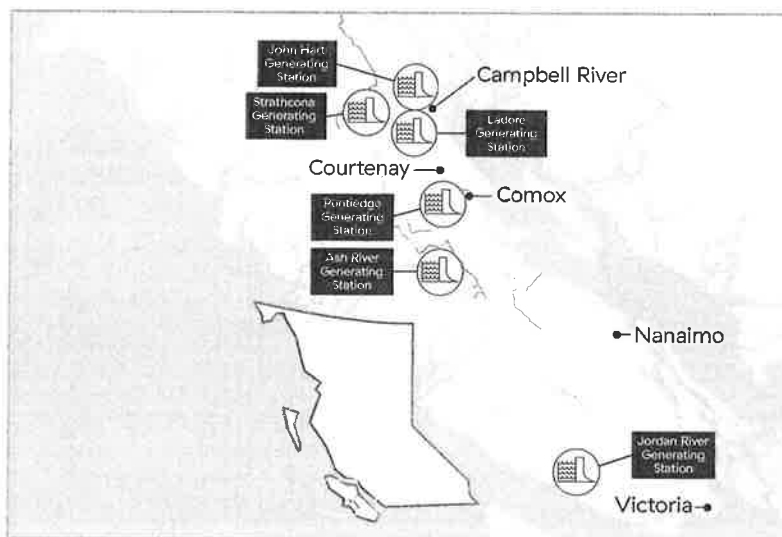
In September, BC Hydro and InPower BC held our fourth and final community event. It was a unique opportunity to see the new facility before it started operating in October. People were driven to the site by bus and went through the tunnels and had a tour of the massive underground powerhouse. The limited 1,240 tickets were sold out quickly. The ticket cost was \$5 and the funds raised—over \$6,000—went to North Island College's apprenticeship scholarship program.

While this massive project is now complete, we still need to decommission the old facility including removing the three penstocks or pipes, two of the three surge towers, and bringing the old generating station down to ground level. That work will go through to summer 2019. For more information, please select bchydro.com/johnhart.

CAMPBELL RIVER SYSTEM UPGRADE PROJECTS

We continue to plan three large projects – that may all start as early as 2021 – to keep the Campbell River system dams safe and seismically strong.

These include a seismic upgrade to John Hart Dam, replacement of three spillway gates at Ladore Dam, and upgrades to our water discharge abilities at Strathcona Dam.



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 2017 and Fiscal 2018 for communities in the Vancouver Island-Sunshine Coast region. These statistics include interruptions due to planned outages.

Community	Fiscal 2017 Average customer interruption duration (hours)	Fiscal 2018 Average customer interruption duration (hours)	Fiscal 2017 Average number of interruptions per customer	Fiscal 2018 Average number of interruptions per customer
Campbell River	3.64	3.73	3.21	3.82
Courtenay	3.28	2.40	4.86	2.35
Duncan	3.02	2.66	5.15	4.93
Gulf Islands	3.79	4.16	8.86	7.51
Nanaimo	2.09	1.40	1.04	1.62
Parksville	1.32	1.61	0.34	1.31
Port Alberni	1.82	2.24	2.97	1.71
Port Hardy	4.45	2.18	5.19	5.68
Powell River	2.51	3.02	1.83	2.32
Qualicum Beach	2.44	1.89	4.69	4.96
Sechelt	3.38	3.02	3.92	3.27
Victoria	2.15	2.42	0.47	0.59

Supporting communities

Weekend loggers and public safety

A report released by BC Hydro finds electrical contact incidents involving ‘weekend loggers’ – homeowners trimming trees and pruning hedges on their property – are up 60% from 2013.

The report titled Crossing the line: The dangerous rise of incidents involving power lines and ‘weekend loggers’ found there have been more than 400 incidents over the past five years and many more go unreported. In fact, it is estimated that 7,500 British Columbians have had a close call with electricity while pruning trees or doing work on a roof, such as cleaning gutters or replacing shingles.

According to a survey of 800 British Columbians conducted for the report, a large number of ‘weekend loggers’ are unprepared or unaware of vital safety rules:

- 80% of those surveyed do not know how far their tools should be from overhead power lines when doing yard work
- 60% of those surveyed trim trees, bushes and hedges near power lines without the help of a professional

We want to remind the public that when trimming a tree, a property owner, their equipment and the tree should be at least three metres – about a car length – away from a power line.

The report also finds there are other important safety rules British Columbians are unaware of:

- 30% of those surveyed are under the mistaken impression that tools and ladders must touch a power line to be dangerous; however, electricity can “arc” or jump from power lines across a gap to tools and ladders
- 20% of those surveyed believe trees cannot conduct electricity; however, trees do conduct electricity and branches that touch power lines can make the tree a safety hazard – especially when wet

Public safety is a top priority at BC Hydro where it is promoted year-round through a number of channels, including radio, television, online and face-to-face at community events. We also offer safety programs for elementary and secondary students as well as free training for trades workers and first responders. For more information on how to stay safe around electricity, please select bchydro.com/besafe.



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 flawed 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 – then 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.

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.

In 2017–2018, successful applications for greening included:

Community	Project	Funding
Campbell River	Cemetery beautification	\$3,000
Central Saanich	Naturalization	\$3,500
Courtenay	Parks and road beautification	\$4,000
Esquimalt	Saxe Point Park area street trees	\$9,500
Langford	Community garden	\$1,500
Nanaimo	Beaufort Park food forest	\$6,000
North Saanich	Community greening	\$1,288
Oak Bay	Midland/Lansdowne canopy	\$7,650
Parksville	Park beautification	\$4,000
Qualicum Beach	Road beautification	\$800
Sechelt	Growing community root	\$3,000
Victoria	Boulevard replacement trees	\$9,750

Beautification program – new information

We provide financial assistance to municipal governments for conversion of overhead electrical distribution lines to underground facilities, and for installation of decorative wraps on our existing pad-mounted equipment.

Since wraps were first added to the program a few years ago, we’ve seen year-over-year increases. Due to this popularity, we’re establishing a stand-alone funding program and simplifying the application process. The beautification fund will remain and continue to support undergrounding projects.

While we work to launch this new program, we’re not currently accepting any new applications. Please check back with us in the coming months for additional information by selecting bchydro.com/beautification.

This past year, successful applicants for conversion of overhead to underground facilities included:

- City of Nanaimo
- City of Victoria

Successful applicants for decorative wraps included:

- City of Duncan
- District of Sechelt



Decorative wrap in Sechelt with artist Philippe Sokazo. Photo courtesy of District of Sechelt.



Decorative wrap in Sechelt with artist Kim LaFave. Photo courtesy of District of Sechelt.

Decorative wrap policy

We allow decorative wraps to be installed on our pad-mounted equipment. Municipal governments, strata councils, property managers and well-established community groups (i.e. Business Improvement Associations, Kinsmen, Lions or Rotary Clubs, Neighbourhood Associations) or businesses (established for five years or more) are eligible to apply. Requests from individual homeowners or renters aren’t being accepted at this time.

For more information about the decorative wrap policy and installation guidelines, please select bchydro.com/wrap.

Fish & Wildlife Compensation Program



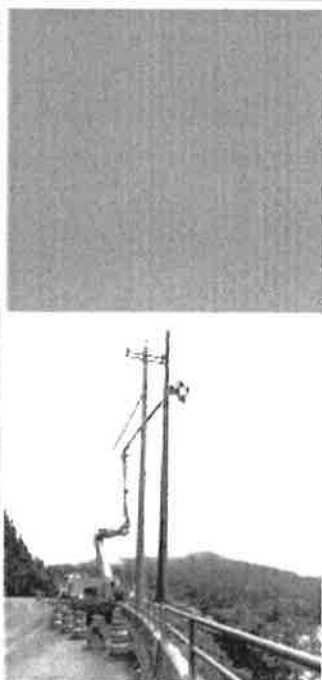
The 500th Vancouver Island marmot born in captivity was released on Mount Washington. Photo courtesy of Marmot Recovery Foundation.

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

In 2017–2018, the FWCP funded 10 regional projects, in the Ash, Campbell, Puntledge, and Jordan River watersheds, for a total of just over \$525,000. They included releasing captive-bred, and wild-born, Vancouver Island marmots on Mount Washington; improving fish passage at Simms Park in Courtenay; and improving spawning habitat in Jordan River.

Since 1999, there's been more than \$34.3 million invested in fish and wildlife projects in the Coastal region (which includes Vancouver Island and the Sunshine Coast). For more details, please select fwcp.ca.

BC Hydro working in your community



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 Vancouver Island–Sunshine Coast region as of June 30, 2018.

Municipality/District	School Taxes*	Grants	Other Taxes	Total Payments
Regional District of Alberni–Clayoquot	0	\$55,518.00	0	\$55,518.00
Village of Alert Bay	\$3,560.24	\$8,555.21	0	\$12,115.45
City of Campbell River	\$2,949,359.00	\$905,317.31	0	\$3,854,676.31
Capital Regional District	0	\$337,076.00	0	\$337,076.00
District of Central Saanich	\$313,698.23	\$252,575.60	\$5,943.66	\$572,217.49
City of Colwood	\$40,843.20	\$130,497.42	0	\$171,340.62
Town of Comox	\$36,515.00	\$116,802.34	0	\$153,317.34
Regional District of Comox Valley	0	\$47,587.00	0	\$47,587.00
City of Courtenay	\$191,292.00	\$418,480.96	0	\$609,772.96
Village of Cumberland	\$10,224.20	\$32,200.19	0	\$42,424.39
City of Duncan	\$8,375.00	\$58,388.62	0	\$66,763.62
Township of Esquimalt	\$170,930.40	\$261,593.91	0	\$432,524.31
Town of Gibsons	\$52,801.36	\$67,309.63	\$578.20	\$120,689.19
Village of Gold River	\$10,653.00	\$19,860.24	0	\$30,513.24
District of Highlands	\$89,713.00	\$27,115.23	0	\$116,828.23
Town of Ladysmith	\$62,415.95	\$109,551.37	0	\$171,967.32
Town of Lake Cowichan	\$26,521.28	\$36,215.25	\$240.00	\$62,976.53
City of Langford	\$197,931.40	\$341,203.66	0	\$539,135.06
District of Lantzville	\$104,514.64	\$57,404.36	\$14.00	\$161,933.00
District of Metchosia	\$59,584.44	\$53,739.53	0	\$113,323.97
City of Nanaimo	\$747,892.24	\$1,931,627.72	0	\$2,679,519.96
District of North Cowichan	\$851,806.52	\$1,124,240.64	\$1,110.00	\$1,977,157.16
District of North Saanich	\$110,402.78	\$174,430.34	\$200.00	\$285,033.12
District of Oak Bay	\$35,027.60	\$133,275.52	0	\$168,303.12
City of Parksville	\$39,731.00	\$132,032.81	0	\$171,763.81
City of Port Alberni	\$182,209.15	\$690,667.68	\$67.83	\$872,944.66
Village of Port Alice	\$6,534.56	\$14,566.33	0	\$21,100.89
District of Port Hardy	\$66,010.06	\$87,474.23	0	\$153,484.29
Town of Port McNeill	\$9,581.00	\$39,558.07	0	\$49,139.07
City of Powell River	\$161,309.36	\$421,799.90	\$2,128.60	\$585,237.86
Town of Qualicum Beach	\$98,697.74	\$155,449.16	\$32.42	\$254,179.32
District of Saanich	\$1,102,580.48	\$1,676,577.22	\$2,366.89	\$2,781,524.59
Village of Sayward	\$2,733.60	\$3,648.16	0	\$6,381.76
District of Sechelt	\$65,505.08	\$140,163.81	\$303.24	\$205,972.13
Sechelt Indian Gov't District	\$6,164.00	\$27,209.07	0	\$33,373.07
Town of Sidney	\$21,643.76	\$120,935.00	0	\$142,578.76

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

Grants-in-lieu continued

Municipality/District	School Taxes*	Grants	Other Taxes	Total Payments
District of Sooke	\$101,510.36	\$141,743.43	0	\$243,253.79
Regional District of Strathcona	0	\$126,900.00	0	\$126,900.00
Regional District of Sunshine Coast	0	\$65,432.00	0	\$65,432.00
Village of Tahsis	\$17,449.48	\$20,940.44	0	\$38,389.92
District of Tofino	\$10,385.00	\$44,033.59	0	\$54,418.59
District of Ucluelet	\$11,604.40	\$36,437.85	0	\$48,042.25
City of Victoria	\$661,122.70	\$1,424,804.94	\$252.02	\$2,086,179.66
Town of View Royal	\$119,059.00	\$139,872.25	0	\$258,931.25
Village of Zeballos	\$1,917.54	\$4,179.18	0	\$6,096.72

*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. Last year, we supported over 63 community-based projects across every region of the province.

Our grants are given out in three focus areas: building the workforce of tomorrow, public safety and promoting 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.

Some of the organizations that we supported in the Vancouver Island–Sunshine Coast region this past year included:

Organization	Project	Community	Grant
Metchosin Emergency Program	Emergency Preparedness Information Session for Children and Families	Metchosin/Beecher Bay	\$500
North Island Emergency Preparedness	Regional Emergency Support Services Director's Workshop	North Vancouver Island	\$1,500
Strathcona Regional District	9th Annual Upper Island Safety Conference	Campbell River	\$1,000
Vancouver Island Emergency Preparedness Conference Society	Vancouver Island Emergency Preparedness Conference	Victoria	\$2,000
Salt Spring Community Energy Group (in partnership with Gulf Islands Educational Trust Fund of \$064)	Solar Scholarship/MYSEEC Renewable Energy Education Program	Salt Spring Island	\$1,000
Coast Rogue Arts Society	Rogue Arts Festival Workshop Series in Solar Energy, Water Recycling, etc.	Roberts Creek	\$1,000
Society for the Advancement of Young Scientists	Vancouver Island Regional Science Fair	Victoria region	\$2,000
Powell River Salmon Society	Power Our Fish 2018 educational programs	Powell River	\$2,000
Bamfield Community School Society	Summer Camp	Bamfield	\$2,000



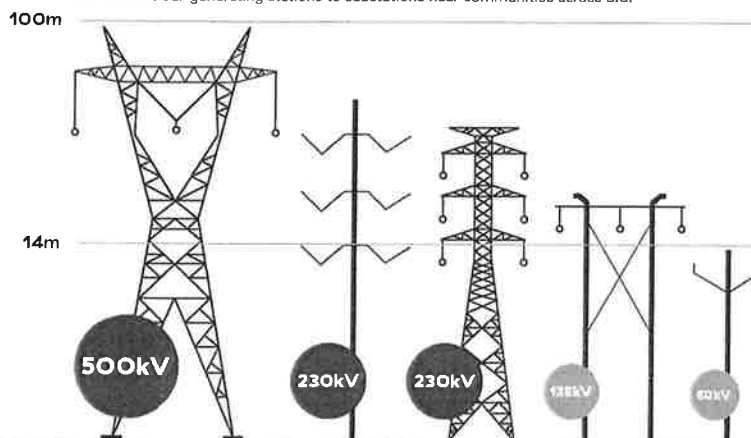
We supported Habitat Acquisition Trust's Goldstream Chums Program in 2017.

Types of power lines

We rely on a system of transmission towers and power lines to carry the electricity produced at our generating stations to the homes and businesses in B.C.

Transmission lines

Transmission lines are the big, high voltage power lines that bring electricity from where it's made at our generating stations to substations near communities across B.C.

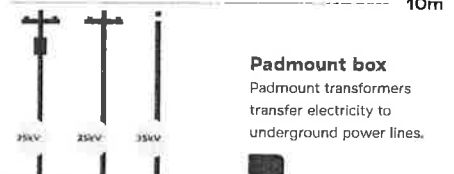


What's a kV?

kV stands for kilovolt, which is a unit of potential energy. One kV is equal to 1,000 volts.

Distribution lines

Distribution lines are the smaller, lower voltage lines that carry electricity from the substation to your home or business.



Padmount box
Padmount transformers transfer electricity to underground power lines.

BC Hydro
Power smart

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.

Vancouver Island–Sunshine Coast

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

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Vancouver Island–Sunshine Coast
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Karla Louwers
Public Affairs Officer
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Stephen Watson
Stakeholder Engagement Advisor
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BC Hydro guide for local government

Quick access to key information on bchydro.com

My Hydro and Energy Savings Initiatives

bchydro.com/myhydro/

Log in to manage your account.

Energy savings programs
bchydro.com/energysavings

Learn how you can be smart with your power. Take advantage of rebates and programs.

Smart Meters
bchydro.com/smartmeters

Find out how smart meters help us better manage our electricity grid, and improve service and reliability.

Projects

Capital Projects
bchydro.com/projects

We're investing more than \$10 billion in our province over the next five years. Learn more about projects taking place in your region.

Programs

Beautification program
bchydro.com/beautification

Our beautification fund assists municipal governments in achieving their objectives related to environmental concerns and visual aesthetics. Learn more about the program and the principal considerations that should be included in a proposal.

Community ReGreening Program
bchydro.com/regreening

The regreening program assists municipalities with urban tree planting while helping to make sure appropriate trees are planted around power lines.

Community Giving

Grants for community groups
bchydro.com/grants

Learn about our funding opportunities and how to apply for them.

Scholarships & Endowments
bchydro.com/scholarships

We look to build the next generation of engineers, electricians, and many other key roles who will help us deliver clean energy for generations. Learn about our scholarship and endowment opportunities.

Report an outage


How to report a power outage
bchydro.com/outages

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.

Get info on energy savings initiatives, our projects, important announcements, outages and more.

 facebook.com/bchydro

 [@bchydro](https://twitter.com/bchydro)

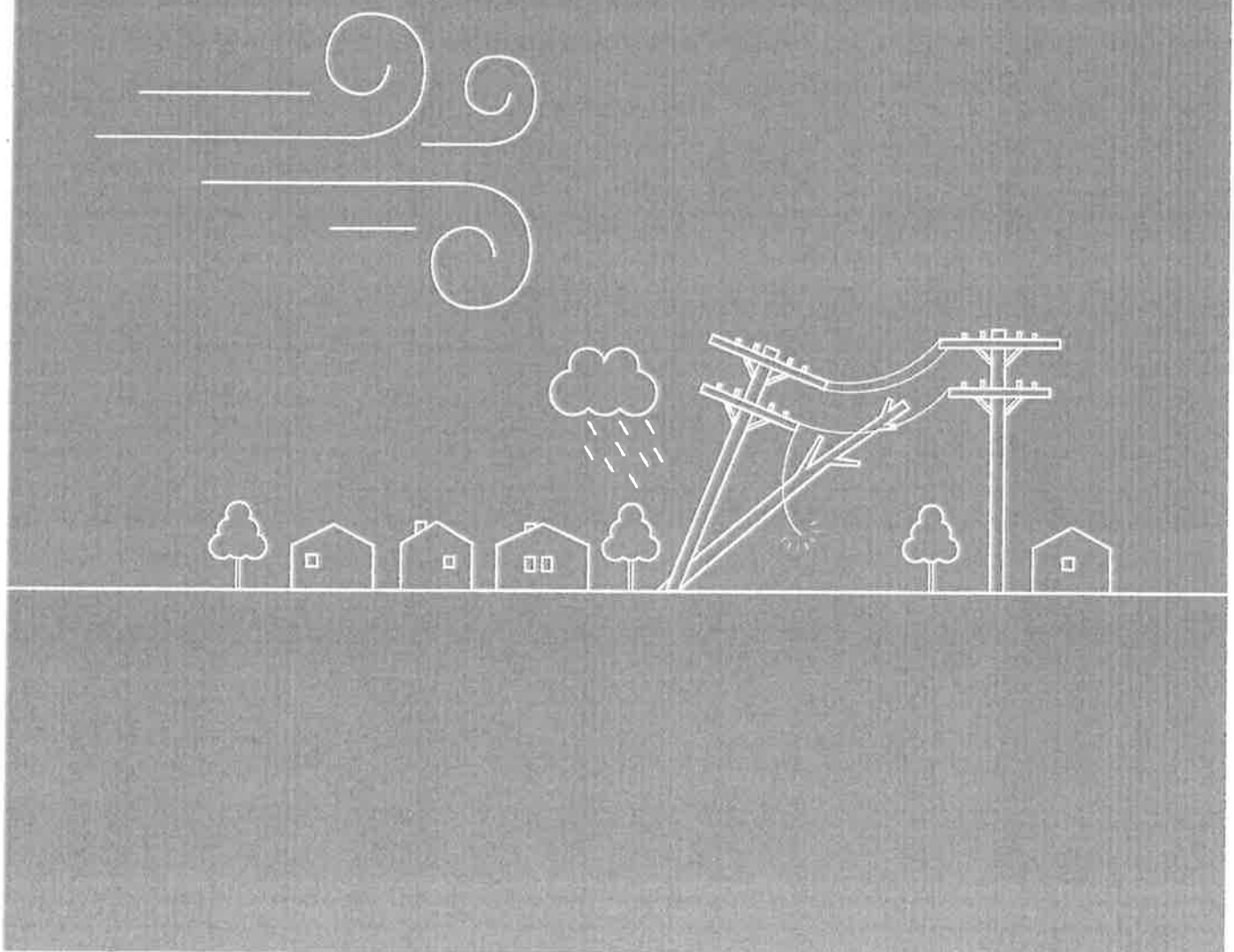
 instagram.com/bchydro

 youtube.com/bchydro



Storm report:

The most damaging storm
in BC Hydro's history



Report

January 2019

 **BC Hydro**
Power smart

The windstorm that hit B.C.'s South Coast on December 20 resulted in more than 750,000 customers without power and thousands of damaged pieces of equipment.

Highlights

- The December 20 storm was the most damaging storm in BC Hydro's history—and was unlike any previous weather event. BC Hydro had encountered because:
 - The wind came from multiple directions—including the southeast, south and southwest.
 - The windstorm was preceded by several heavy rain events—more than 400 millimetres of rain fell in some areas leading up to the storm, which destabilized trees.
 - The wind speeds were significant—topping 100 kilometres per hour in some areas.
- The storm left more than 750,000 customers without power, making it larger than the August 2015 windstorm that affected the Lower Mainland and Fraser Valley, and larger than the 2006 windstorm that hit Vancouver Island and devastated Stanley Park in Vancouver.
 - More than 400,000 customers in the Lower Mainland and Fraser Valley were impacted.
 - Vancouver Island and the Gulf Islands were the hardest hit with nearly 350,000 customers without power, which represents more than 80 per cent of the total number of customers in those areas.
- With more than 1,900 spans of wire, 390 power poles, 700 cross-arms and 230 transformers that needed to be repaired or replaced, responding to the storm required BC Hydro's single biggest mobilization of staff, contractors and resources.
 - There were more than 900 field workers working to restore power, including crews from the Interior, and contractor crews from Alberta and the East Coast.
- Within the first 24 hours, BC Hydro had restored power to over 550,000 customers.
 - All customers in the Lower Mainland and Fraser Valley were restored by December 24; however, the damage and access issues on Vancouver Island and the Gulf Islands due to trees on the roads made it particularly challenging, causing repairs to take much longer.
 - All customers impacted by the December 20 storm were restored by December 31.
- While BC Hydro is proud of how the crews responded and the quick restoration for many of its customers, there are always things that can be improved on. For example:
 - Some customers encountered challenges when trying to report downed lines because 9-1-1 operators in certain areas were overwhelmed with calls. Safety is BC Hydro's number one priority, and this is something it will take away to work on with community partners.
 - BC Hydro will work with cities and municipalities to better map out major intersections and primary traffic routes so circuits feeding those areas can be prioritized to avoid traffic congestion and related safety issues.
 - BC Hydro is looking at ways it can provide more support to communities that experience outages over 72 hours, including having a customer service representative available for face-to-face communication.
 - BC Hydro knows some customers had challenges learning about the status of their outage, and will continue to ensure it is providing timely updates to its customers.

On December 20, a severe windstorm hit B.C.'s South Coast, resulting in the most damaging storm BC Hydro has experienced. The storm left more than 750,000 customers without power from Parksville to Victoria on Vancouver Island and West Vancouver to Mission on the Mainland, and damaged or destroyed thousands of pieces of electrical equipment. Responding to the storm involved the single biggest mobilization of staff, contractors and resources in BC Hydro's history.

This report looks at why this storm caused so much damage, how BC Hydro responded, how it stacks up against previous devastating storms, what was learned and how the learnings will inform the response to future storms.

Wild winds and water

The December 20 storm was unlike any previous weather event BC Hydro and its infrastructure had encountered. One of the main reasons the storm was so damaging is that wind came from multiple directions and, when combined with the rain, destabilized, uprooted and damaged trees and vegetation throughout Vancouver Island, the Gulf Islands and parts of the Lower Mainland and Fraser Valley. This resulted in an unprecedented amount of damage to BC Hydro's distribution infrastructure.

The windstorm was preceded by several heavy rain events, which affected ground conditions and trees. More than 400 millimetres precipitation fell in some areas over the week leading up to the December 20 storm. As a result, soils were completely saturated to a point where they were seeping water even when it was not raining. Saturation reduces the stability of the soil and some coniferous trees, like Douglas Firs and Hemlocks, have shallow roots making them more vulnerable.

Another major contributing factor was the wind on December 20 came from three different directions. During the early morning, winds came from the southeast, by the late morning they were coming from the south, and by the early to mid-afternoon they were coming from the southwest. Southwest winds, in particular, are known to cause significant damage across the Cowichan Valley, Duncan, Nanaimo and the Gulf Islands—and happen less frequently than other wind directions. The duration of strong southwest winds in Duncan was more than 12 hours, and Salt Spring and some of the other southern Gulf Islands experienced them for 8 hours.

In addition, the low pressure centre of the storm tracked across north-central Vancouver Island, making it the optimal storm track for strong winds over the most populated areas of the South Coast—the southern half of Vancouver Island and the Lower Mainland. The storm's central pressure was 982 millibars, which made it much more intense than most storms that typically cross

the South Coast. For reference, a Category 1 hurricane has a central pressure of about 980 millibars.

The wind speeds during the storm were significant. The sustained winds were generally in the range of 70 to 100 kilometres per hour; however, in some areas gusts topped 100 kilometres per hour.

Finally, this was the first widespread strong windstorm on the South Coast since last winter. As a result, the "clearing" effect that would have occurred through several smaller windstorms had not happened yet. This left a significantly higher amount of vegetation susceptible during this storm.



Crews repairing extensive damage in Nanaimo.

Summary of wind speeds

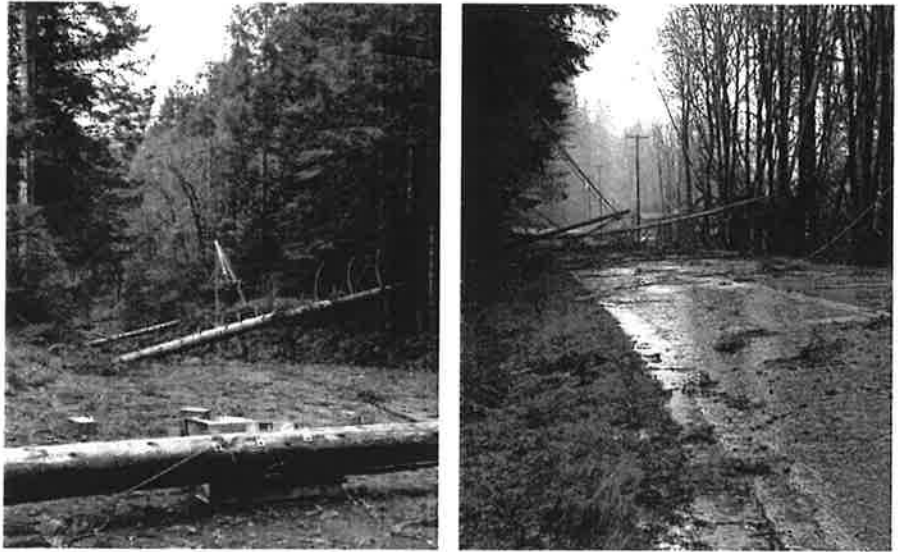
Location	Wind speed
Lennard Island Lighthouse	144 km/h
Tofino	111 km/h
Saturna Island	102 km/h
Abbotsford	101 km/h
Tsawwassen	98 km/h
Esquimalt	94 km/h
Victoria Airport	89 km/h
Vancouver Airport	87 km/h
Nanaimo	85 km/h

Source: Environment Canada

The aftermath

With winds above 100 kilometres per hour and the storm on a perfect track to do damage, the result was complete destruction in some areas. Otherwise healthy trees and branches came crashing down on BC Hydro's equipment and roads across Vancouver Island, the Gulf Islands, parts of the Lower Mainland and Fraser Valley. Once the winds died down, more than 750,000 customers were left without power.

In total, more than 400,000 customers in the Lower Mainland and Fraser Valley were impacted; however, Vancouver Island and the Gulf Islands were hit the hardest with nearly 350,000 customers left without power, which represents more than 80 per cent of the total number of customers in those areas.



Trees made many roads inaccessible—particularly on the Gulf Islands.

Across the South Coast, 1,900 spans of wire, 390 power poles, 700 cross-arms and 230 transformers needed to be repaired or replaced. This storm resulted in more than 5,800 trouble orders—that is 19 times greater than the number of trouble orders BC Hydro receives during an average storm. A trouble order is how work is assigned to crews so that power can be restored. This ranges from removing a tree from a line to replacing a power pole.



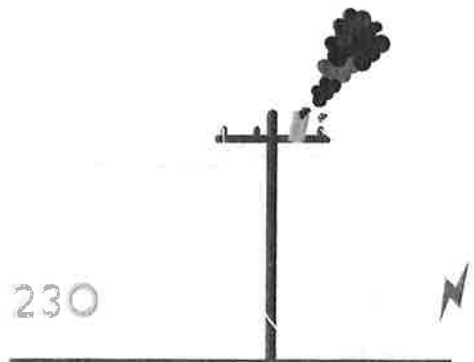
Cross-arms



Spans of wire down



Power poles



Transformers

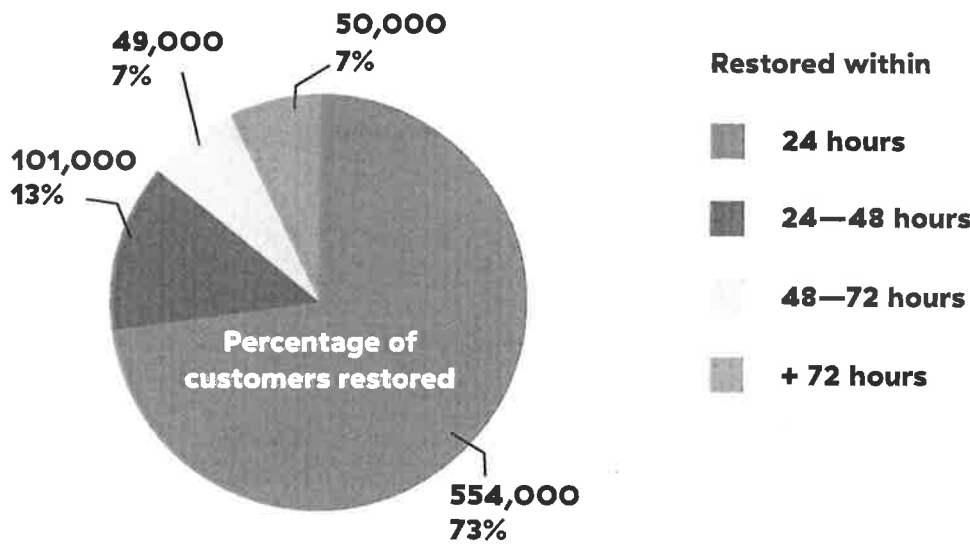
The response

The unique nature of the storm meant it required an unprecedented mobilization of resources and people. Prior to the storm, BC Hydro's team of both in-house and contractor meteorologists were closely tracking the incoming system, and BC Hydro had crews on standby to respond. Multiple storm rooms had been established in the regions that were to be impacted so crews could respond immediately and be moved around with ease to restore power in the hardest hit areas.

Every available resource was brought in to support restoration efforts. There were more than 900 field workers working around-the-clock. Crews from the Interior, Alberta and East Coast were brought in for additional support. Within the first 24 hours, BC Hydro had restored power to over 550,000 customers.

While BC Hydro made significant progress restoring power to customers in the first few days, it was not able to move its crews around as easily as it would during a typical windstorm because it hit four regions at once. Typically, BC Hydro is able to move crews quickly between the regions so that it can get extra help to the hardest hit areas. Moving this many crews and bringing the trucks, heavy machinery and materials that were needed to rebuild the system over to the many islands and regions added an additional layer of complexity. This was one of the reasons there were longer than average restoration times for many customers.

Customer restoration by outage time



All customers in the Lower Mainland and the Fraser Valley were restored by December 24; however, however, the damage on Vancouver Island and the Gulf Islands was particularly challenging and took longer to repair. The Ministry of Transportation and Infrastructure noted there were trees down on 100 per cent of the roads in some of the southern Gulf Islands. This made access extremely challenging in some places.

In other areas, portions of the distribution system needed to be completely rebuilt due to the destruction. On Salt Spring Island alone, more than 500 spans of wire needed to be replaced. Because so much of the damage occurred on the Gulf Islands, some crews were sent over by water taxi. The restoration efforts, however, were not just about moving people – it was also about moving materials. Thousands of pieces of electrical equipment were required to make repairs, and in the Gulf Islands some of the materials and equipment were sent over by barge. The management of materials during this storm was a significant success.

BC Hydro crews also had to complete a lot of repair work in rural or remote areas, which required extensive work off the main roads without the support of trucks. Crews were required to get to some sites by ATV or hike through forests on foot.

All customers impacted by the December 20 windstorm were restored by December 31. BC Hydro experienced no serious safety incidents, which considering the hours worked (and often overnight) and the number of workers, was exceptional.



Example of infrastructure damage on Gabriola Island.

How is work prioritized?

The safety of the public and the crews is BC Hydro's top priority. Restoring power always starts by addressing immediate dangers like potentially live wires across roads or near homes, and bringing power back to critical services like hospitals.

Crews then make repairs to high-voltage transmission lines and substations as this brings the most customers back as quickly as possible. They then work on the smaller pockets of customers and those located at the end of a circuit where repairs to the rest of the circuit need to be completed first.

Comparing the most damaging storms

Over the past two decades, three major storms have impacted the South Coast. In 2006, a storm that struck in early December resulted in 240,000 customers losing power. This was the same storm that caused devastation in Stanley Park and had a significant impact on Vancouver Island. At the time, it was considered the single largest storm impact in BC Hydro's history, and it did more damage to the distribution system than what would typically be experienced in an entire year.

The next major storm happened in 2015. The Lower Mainland and Vancouver Island were hit by an unusual late summer windstorm that left about 700,000 customers without power. At the time, it was BC Hydro's new single largest outage event.

The windstorm on December 20 was more damaging than the 2006 and 2015 windstorms. It resulted in more than 750,000 customers without power, which is the equivalent to more than 60 per cent of the customers impacted by storms in all of 2017.

When compared to the August 2015 windstorm, the December windstorm was worse in every category. While the total number of customers was not much greater, it is not just the number of customers without power that measures the impact of a storm. The damage in August 2015 was nowhere near as extensive as the damage from the December 20 storm. The August 2015 storm had over 2,400 trouble orders, the December 20 storm resulted in more than 5,800. While there were 10,000 metres of damaged power line in 2015, this storm was over 8 times that—more than 86,000 metres.

How the August 2015 windstorm compares to the December 2018 windstorm

2015 windstorm		2018 windstorm	
Number of customer without power	700,000	Number of customer without power	+ 750,000
Metres of damaged power line	10,000	Metres of damaged power line	86,000
Number of damaged power poles	200	Number of damaged power poles	390
Number of damaged cross-arms	500	Number of damaged cross-arms	700
Pieces of electrical equipment damaged	1,200	Pieces of electrical equipment damaged	3,200

Looking ahead: continuing to improve storm response

BC Hydro reviews its response at the end of every storm—regardless of the storm’s size. It is a regular part of its operations. While BC Hydro is proud of how the crews responded and the quick restoration for many of its customers, there are always ways BC Hydro can improve.



For example, some customers encountered challenges when trying to report downed lines in their communities. Local 9–1–1 operators in some communities were overwhelmed and in certain areas these calls were not being treated as a priority. Safety is BC Hydro’s number one priority, and it is something it will be taking away as an area to improve on with community partners.

Another area of opportunity is to connect with cities and municipalities to better map out major intersections and primary traffic routes so that BC Hydro can prioritize the circuits feeding these areas during future major storms. This will help to prevent major traffic congestion and the safety risks this can create.

BC Hydro is also looking at ways it can provide more support to communities that are affected by outages that are more than 72 hours long as a result of an extreme storm like the windstorm on December 20.

Since BC Hydro is typically able to restore 95 per cent of customers within 24 hours, it generally does not have customers without power for this length of time. However, this storm has highlighted the need to have customer service representatives available for face-to-face communications in the hardest hit communities.

In addition, BC Hydro knows some customers had challenges learning about the status of their outage, and will continue to ensure its providing timely updates to its customers.

BC Hydro released a [report](#) in November 2018 that found storms and extreme weather events in B.C. are becoming more frequent and severe. In the past five years, the number of individual storm events BC Hydro has responded to has tripled. The December windstorm is another indicator that this trend is not slowing down, and the frequency and severity of the storms are now increasing. For example, this storm generated more than twice the number of storm-related outages than BC Hydro experienced in all of 2013.

To battle against this increasingly extreme weather, BC Hydro remains focused on preparing for storm season year-round. It is using its smart meter network and introducing new technology and processes to improve its response times, some of which includes:

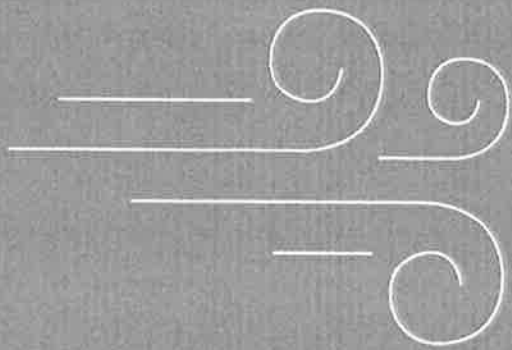
- **Enhanced prediction logic:** using an algorithm and the smart meter network, BC Hydro’s system can confirm an outage and mark its location on a map, where a dispatcher can then analyze and send a crew to investigate and make necessary repairs.
- **New mobile dispatch tools:** these tools communicate via satellite and transfer information from the field to the operations centre faster and more frequently—providing more timely updates for customers.
- **Improved meteorology models:** this information provides greater insight into where and when a storm might hit so BC Hydro can ensure crews are ready to respond quickly.

Don't be powerless in a power outage

It is difficult to predict how much damage a storm may cause to BC Hydro's system and how long a power outage might last. This is why it is important for British Columbians to be prepared with the right supplies and information on hand.

BC Hydro recommends:

- **Having a well-stocked emergency kit:** this should include basic supplies like:
 - Flashlight
 - Extra batteries
 - First-aid kit
 - Blanket or warm clothing
 - Ready-to-eat non-perishable food
 - A three day supply of bottled water for each member of the household
 - Other optional items include personal toiletries, medications, cash in small bills, copies of important documents, a portable cell-phone charger and books or games.
- **Developing a preparedness plan:** share it and be sure everyone knows what to expect and what to do.
- **Knowing where to get updates and information:** customers can visit bchydro.com/outages from their mobile device for the most up-to-date information on an outage and estimated restoration times once available.





STAFF REPORT
Regular meeting

From: Paul Carver, Chief Administrative Officer
Shaun Koopman, Protective Services Coordinator
Subject: Emergency Operations Centre Grant
Meeting date: January 22, 2019

BACKGROUND

To consider applying for a Community Emergency Preparedness Fund (CEPF) Emergency Operations Centre (EOC) Grant from the Union of BC Municipalities (UBCM) to enhance EOC and Group Lodging Centre radio communications capability in the Village of Sayward and region.

DISCUSSION

The CEPF is a suite of funding programs intended to enhance the resiliency of local governments and their residents in responding to emergencies. The intent of this funding stream is to support the purchase of equipment and supplies required to maintain or improve EOC and to enhance EOC capacity through training and exercises. The grant program can contribute up to 100% of the costs of eligible activities to a maximum of \$25,000. Local governments can submit one application per intake and the deadline for the next intake is February 1, 2019.

It is proposed that the Regional District apply for funding to procure:

- Equipment to enhance UHF/VHF radio communications between the Village's Emergency Operation Centre and Group Lodging Facility at Heritage Hall by installing commercial grade Comprod antennas;
- High Frequency (HF) antennas to enhance communications between the Village of Sayward and the rest of British Columbia;
- Provide municipal staff, emergency program volunteers and first responders with training in emergency evacuations;
- Procure voice and digital radio equipment to support the Sayward Emergency Communications Team; and
- Install a K-Net Packet Node on Newcastle Ridge to connect Sayward to the rest of Vancouver Island's Winlink Expansion Project.

POLICY / LEGISLATIVE REQUIREMENTS

Section 2(3)(b) of BC Reg.380/95 (*Local Authority Emergency Management Regulation*) requires that local authorities coordinate emergency response exercises and staff emergency training. Section 6(2) of the *Emergency Program Act* states that a local authority must prepare or cause to be prepared local emergency plans respecting preparation for, response to and recovery from emergencies and disasters. The response to and recovery from emergencies and disasters is coordinated by the Emergency Operations Centre.

FINANCIAL IMPLICATIONS

The Strathcona Regional District's emergency program will fund the annual \$500 co-locate fee necessary to install a K-Net Packet Node on Newcastle Ridge.

Providing support for a CEPF grant indicates that the Village of Sayward is prepared to accept responsibility for this project and to provide overall grant management.

Grant Budget

Item	Quantity	Cost	Total
Near Vertical Incident Skywave Antenna for High Frequency Long Distance Communication			
NVIS Antenna + Installation Fees at Village Office	1	\$1,000	\$1,000
NVIS Antenna + Installation Fees at Heritage Hall	1	\$1,000	\$1,000
		<i>Total</i>	<i>\$2,000</i>
High Frequency Radios for Long Distance Communication			
Kenwood TS-480SAT Transceiver	1	\$1,300	\$1,300
Power Supply	2	\$400	\$ 800
Pactor Modem	1	\$1,400	\$1,400
Power Supply	1	\$400	\$ 400
Pelican Case	2	\$400	\$ 800
Codan HF Transceiver (Dual Amateur and Commercial)	1	\$5,000	\$5,000
Laptop	1	\$600	\$ 600
		<i>Total</i>	<i>\$10,300</i>
Mobile VHF/UHF Packet Kit			
KP3 + Terminal Node Controller	1	\$400	\$ 400
Power Supply	1	\$400	\$ 400
Pelican Case	1	\$350	\$ 350
VHF/UHF Transceiver Motorola	1	\$800	\$ 800
Laptop	1	\$600	\$ 600
		<i>Total</i>	<i>\$3,580</i>
Radio Training			
UHF/VHF Packet Training	2	\$150	\$ 300
HF Pactor Training	2	\$150	\$ 300
		<i>Total</i>	<i>\$ 800</i>

UHV/VHF Antennas for Emergency Social Services Facilities			
VHF/UHF Comprod Antennas + Installation Fees for Village Office and Heritage Hall	2	\$1,100	\$2,200
		<i>Total</i>	<i>\$2,200</i>
Packet Knet Node on Newcastle Ridge to the Winlink Expansion Network			
Transceiver TK7180	1	\$700	\$ 700
C2036 Multicoupler	1	\$2000	\$2,000
Kantronics KP3 + Terminal Node Controller	1	\$400	\$ 400
		<i>Total</i>	<i>\$3,100</i>
Emergency Operation Centre Staff Training			
Emergency Evacuations course through Justice Institute of BC	1	\$3,100	\$3,100
Lunch for staff attending the Emergency Evacuations course	24	\$12	\$ 288
		<i>Total</i>	<i>\$3,388</i>
Grand Total = \$24,988			

RECOMMENDATION

THAT the report from the Chief Administrative Officer be received; and

THAT the application for financial assistance under the Community Emergency Preparedness Fund Grant for Emergency Operations Centre's be authorized for submission to the Union of BC Municipalities; and

FURTHER THAT the Village of Sayward agree to provide management of the grant funds if the application is successful.

Respectfully prepared,



Paul Carver
Chief Administrative Officer