



**2018  
FRENCH CREEK  
PERFORMANCE REPORT**



**PROVIDING MORE**

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# ABOUT US

EPCOR has been providing clean drinking water and wastewater service for more than one hundred years. We serve more than 2 million people in over 85 communities and industrial sites across Western Canada and the United States.

EPCOR has been providing water services to the French Creek community for 13 years. We work to ensure the performance of the utility meets the consistently high standards that French Creek residents expect. This report is part of our commitment to accountability and transparency.

We work closely with our regulators: the B.C. Comptroller of Water Rights and the Vancouver Island Health Authority (VIHA). The capital program and operations budgets are approved by the B.C. Water Comptroller's Office and detailed reporting is submitted to both regulators.

In June 2018, new water rates were approved by the B.C. Comptroller. Effective January 1, 2018, and reflected on customer bills after July 1, 2018, the annual 1.27% rate decrease will see the average residential customer's monthly bill lower by approximately \$9.17/month in 2018, \$5.79/month in 2019, and \$6.49/month in 2020, when compared to the average 2017 monthly bill. The rates reflect the cost to provide safe water service to the French Creek community and to maintain and upgrade the system during this time frame.

We are accountable to deliver service that meets key measures for Quality Assurance, Safety, Environment, Customer Care, Capital Programs and Operational Excellence.



## QUALITY ASSURANCE

At EPCOR, our employees are proud to deliver safe, clean drinking water to the French Creek community. We go above and beyond the minimum standards to produce high quality water that's clean and safe to drink.

The Guidelines for Canadian Drinking Water Quality, established by Health Canada, set the maximum acceptable concentrations of microbial, radiological and chemical contaminants found in water. They also address the aesthetic water quality issues around colour and taste.

These guidelines are the basis for the work we do to ensure our customers receive the best quality drinking water every day of the year.

Water Quality in French Creek exceeds the Guidelines for Canadian Drinking Water, as well as those set out by the B.C. Comptroller of Water Rights.

### Ensuring Water Quality

In 2018, French Creek obtained its drinking water from 16 active wells in three well fields. While naturally-occurring minerals from this source can result in variations in odour and taste, the water is safe to drink.

EPCOR is proud to operate, maintain and own the infrastructure in French Creek that helps us treat and deliver water to your home. This includes the wells, pipes, hydrants, pump house and water treatment plants that make up our network.

The water source in French Creek—groundwater—is owned by the Crown on behalf of British Columbia residents. Through the province's Water Protection Act, EPCOR is registered and approved to remove groundwater to produce safe drinking water for citizens.

In addition, EPCOR adheres to the provincial government's Water Sustainability Act, which is designed to protect B.C.'s water supply and regulates groundwater use.

This year, EPCOR carried out more than 5,000 water quality tests. All testing showed that French Creek's drinking water successfully met both Health Canada and B.C. water quality regulatory requirements.

Tests at various levels and for different parameters are conducted daily, weekly and monthly. Not only do our local operators test and calibrate the equipment used in reporting water quality results daily but certified technicians also calibrate and check all water lab equipment annually.

EPCOR continues to monitor the distribution system through the eight sample locations chosen in conjunction with the VIHA Drinking Water Coordinator. We report our quality assurance, environmental, safety and security data and information to VIHA for review. VIHA must be satisfied that French Creek's drinking water successfully meets all water quality regulatory requirements, including microbial requirements.

The following tables provide detailed information on the sampling and testing completed in 2018.

**Physical and Chemical Water Quality Data for French Creek Source and Distribution Water for 2018**

Parameter	Units of Measure	Annual Minimum Recorded	Annual Maximum Recorded	Annual Average Recorded	Guidelines <sup>1</sup>
<b>BACTERIA</b>					
<b>E. Coli</b>	CFU/100 ml	<1	<1	<1 GM	0
<b>Total Coliforms</b>	CFU/100 ml	<1	<1	<1 GM	0
<b>DISINFECTION BY-PRODUCTS</b>					
<b>Trihalomethanes</b>	mg/L	0.008	0.065	0.046	0.1
<b>Haloacetic Acid</b>	mg/L	<0.002	0.071	0.039	0.08
<b>OTHER</b>					
<b>Free Chlorine</b>	mg/L	0.21	1.51	0.90	>0.20
<b>pH</b>		6.4	8.4	7.2	6.5-8.5 (AO)
<b>Temperature</b>	°C	5	20	11	15 (AO)
<b>Turbidity</b>	NTU	0.05	0.64	0.17	1

<sup>1</sup> The Guideline is the Maximum Acceptable Concentration (MAC), the Aesthetic Objective (AO) or the operational guidelines (OG) as per the Guidelines for Canadian Drinking Water Quality established by Health Canada.

**Summary of Total Coliform and Chlorine Residual (2018)**

Sampling Location	No. of Samples	Total Coliform max	E. Coli max
Admiral Tryon	24	0	0
Kasba Circle	24	0	0
Black Brant	24	0	0
Hawthorne Rise	24	0	0
Miller Road	24	0	0
French Creek House	24	0	0
Sunrise Drive	24	0	0
Mid Island Co-op	24	0	0

<b>Abbreviations</b>	
<	Less than detection limit
>	More than detection limit
AO	Aesthetic Objective
CFU	Colony-forming unit
GM	Gross Mean
mg/L	Milligram per Litre
NA	Not Applicable
NTU	Nephelometric Turbidity Unit

**Physical and Chemical Water Quality Data for French Creek  
Source and Distribution Water for 2018**

Substance	Units of Measure	Annual Minimum Recorded	Annual Maximum Recorded	Annual Average Recorded	Guidelines <sup>1</sup>
<b>TRACE METALS</b>					
Aluminum	mg/L	<0.0050	0.0428	0.0126	0.1/0.2 (AO)
Antimony	mg/L	<0.00020	<0.00020	<0.00020	0.006
Arsenic	mg/L	<0.00050	0.00070	0.00054	0.01
Barium	mg/L	0.0088	0.0176	0.0140	1
Boron	mg/L	0.0118	0.0532	0.0263	5
Calcium	mg/L	39.4	46.9	44.2	NA
Chromium	mg/L	<0.00050	0.00208	0.00141	0.05
Cobalt	mg/L	<0.00010	<0.00010	<0.00010	NA
Copper	mg/L	0.0257	0.0636	0.0534	≤1.0 (AO)
Iron	mg/L	<0.010	<0.010	<0.010	0.3 (AO)
Lead	mg/L	0.00039	0.00072	0.00050	0.01
Magnesium	mg/L	17.2	21.3	19.3	NA
Manganese	mg/L	<0.00020	0.00065	0.00042	0.05 (AO)
Nickel	mg/L	<0.00040	<0.00110	0.00054	NA
Potassium	mg/L	0.84	2.80	1.39	NA
Selenium	mg/L	<0.00050	<0.00050	<0.00050	0.01
Silicon	mg/L	11.7	14.8	13.4	NA
Sodium	mg/L	9.3	27.3	15.0	200
Thallium	mg/L	<0.000020	<0.000020	<0.000020	NA
Tin	mg/L	<0.00020	<0.00020	<0.00020	NA
Titanium	mg/L	<0.0050	<0.0050	<0.0050	NA
Uranium	mg/L	0.000026	0.000359	0.000266	NA
Vanadium	mg/L	<0.0010	0.0049	0.0032	0.0036
Zinc	mg/L	0.0085	0.0136	0.0108	≤5.0 (AO)
Zirconium	mg/L	<0.00010	<0.00010	<0.00010	NA

**How to Measure**

Most substances listed are reported in milligrams per litre (mg/L).

- One milligram per litre is commonly referred to as one part per million.
- One part per million is equivalent to one drop in 1/2 a bathtub full of water or one second in 12.5 days.

Some substances are measured in parts per billion.

- One part per billion is also referred to as one microgram per litre (µg/L).
- One part per billion is equivalent to one drop in 520 bathtubs full of water or one second in 32 years.

## SAFETY AND ENVIRONMENT

Ensuring the safety of our customers and our employees is a top priority for EPCOR, as is our commitment to environmental stewardship.



Making sure our employees and contractors get home safely is a top priority for EPCOR.

**We are proud to report that our team in French Creek hasn't had a single lost time incident in the past 12 years.**

These positive results stem from our continual emphasis on safety training for our employees and contractors. This past year, employees received training on various topics, including Cannabis Awareness, Mental Health, WHMIS, First Aid, Driver's Training, Safe Work Planning, Emergency Response and Environmental Management.

EPCOR French Creek also met all its internal Safety Key Performance Measures for leadership, hazard management, monitoring and training.

The French Creek site's Emergency Response Plan is reviewed quarterly and updated annually. Monthly safety meetings, safe work plans, tailgate talks and work site inspections also contribute to our strong safety culture.

### Developing Water Professionals

EPCOR French Creek is a Class III Water Treatment Plant and Class III Water Distribution System as designated through the Provincial Environmental Operators Certification Program, in recognition of our employees' qualifications.

To ensure ongoing operational excellence, EPCOR works with our operators to maintain or expand upon their current level of certification.

EPCOR has a team of professionals treating water in the community including our Senior Operator certified at the highest levels (Level IV Water Treatment and Water Distribution), and a second Operator who holds the next highest certifications (Level III Water Treatment and Water Distribution).

### Protecting the Environment

EPCOR goes above and beyond to protect the environment while ensuring future generations have access to clean and safe water.

**We are proud to report that for the 13<sup>th</sup> consecutive year, EPCOR French Creek has not had a reportable environmental incident.**



## CUSTOMER CARE

Our customers push us to achieve the highest customer standards possible. We understand the importance our customers place on reliable water service. It's why we work hard to provide our customers with great service.

### Responding to Outages

Our crews work quickly and safely to restore service when an outage occurs. In 2018, EPCOR responded to three outages in the French Creek system and restored all outages within four hours.

### Community Engagement

Through EPCOR's Charitable Partnership Program and Helping Hands grant, we support organizations that enhance the community's quality of life.

In 2018, EPCOR supported the following associations and initiatives:

- Parksville Beach Festival Society - Sand Sculpting Competition & Exhibition
- Qualicum Beach Fire & Ice Festival
- Pacific Salmon Foundation
- United Way
- Local Food Bank

Looking ahead, EPCOR French Creek will continue to support great organizations that are making a difference in our community.

### Community Advisory Panel

French Creek's Water Community Advisory Panel (CAP) brings together people representing a variety of viewpoints within the community to share information and gather stakeholder input on initiatives and emerging issues. EPCOR benefits from hearing firsthand from these volunteers who commit to a two-year term and meet three to four times annually.

In 2018, the CAP met three times to discuss the following topics, which were presented and led by EPCOR:

- Presentation on the state of French Creek's aquifer
- Operational update regarding current projects and initiatives
- CAP member-led discussion on 2018-2020 Revenue Requirements and Rates Application
- Presentation on EPCOR's community involvement and discussion on local opportunities
- Overview of water quality in French Creek



## OPERATIONAL EXCELLENCE

Maintenance and capital programs are critical to delivering operational excellence for the water system in the French Creek community.



Since EPCOR began operating the French Creek Utility in May 2006, we have made significant improvements. These include the construction of the Drew Road Water Treatment Plant, continued maintenance programs and increased water quality monitoring.

### Capital Programs

We proactively manage the infrastructure through regular maintenance, evaluations and improvement programs to help ensure the utility is at the forefront of industry best practices.

In 2018, we completed the following improvements:

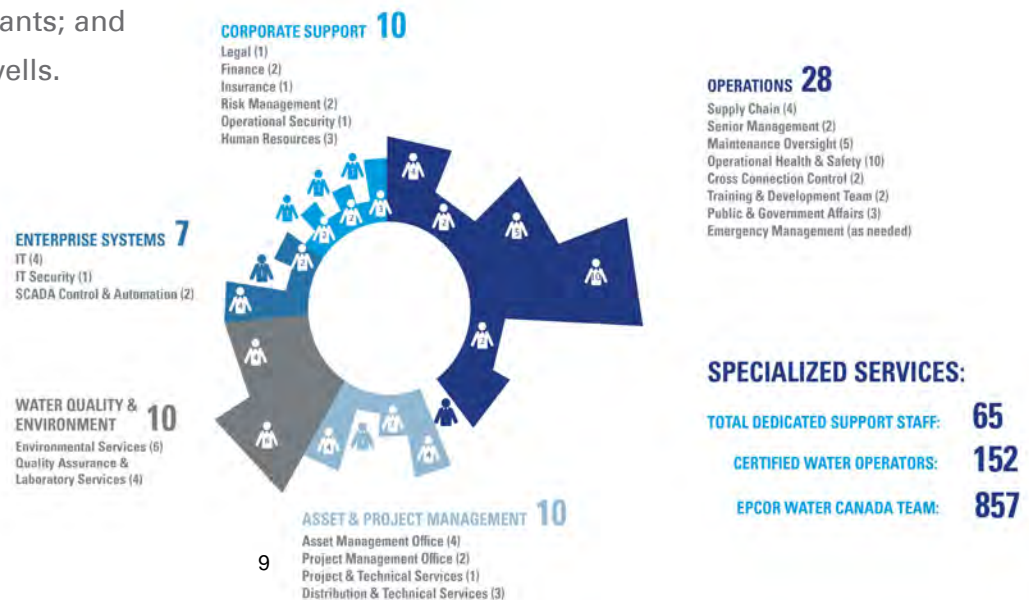
- replaced 100 water meters;
- installed two new hydrants; and
- constructed two new wells.

### EPCOR Advantage

As partners in the delivery of essential services to the community, we utilize the critical resources required to ensure that customers in French Creek are satisfied with their water service. The depth of our expertise stretches beyond basic services.

EPCOR supports the community and our partners with value-added programs including stakeholder engagement, community investment, integrated health and safety and supply chain management, among others.

A complete look at our specialized resources in Western Canada is shown in the image below.





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