

The background of the top two-thirds of the page is a photograph of a vast ocean at sunset. The sky is a mix of soft orange, yellow, and light blue, with the sun's glow reflecting on the water's surface. The water transitions from a deep blue in the distance to a lighter, shimmering blue closer to the viewer. In the bottom left corner, the white foam of a wave is visible, crashing against a dark, rocky shore. The overall mood is serene and natural.

# 2020 FRENCH CREEK PERFORMANCE REPORT



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# ABOUT US

**EPCOR has been providing quality drinking water and essential wastewater services for more than 100 years. We serve more than 2 million people in over 85 communities and industrial sites across western Canada and the southwest United States.**

EPCOR has been providing water services to the French Creek community for 15 years. We work to ensure the performance of the utility meets the consistently high standards that French Creek residents expect.

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.

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. Comptroller's Office and detailed reporting is submitted to both regulators.

**EPCOR has been providing water services to the French Creek community for 15 years.**

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

This report is part of our commitment to accountability and transparency.


## **2021-2023 Rate Application**

In September 2020, we applied to the B.C. Comptroller of Water Rights to set water rates for the 2021-2023 rate period. On March 17, 2021, the new rates were approved by the B.C. Comptroller of Water Rights in Order No. 2582. These rates were effective January 1, 2021, and reflected on customer bills received after April 1, 2021.

EPCOR applies to set the water rates in French Creek every three years. The new rates will enable EPCOR to carry out its scheduled operating and capital programs for the 2021-2023 rate period, which allows us to continue providing safe and reliable water service to our customers.

In addition, we have changed the rate structure to encourage water conservation. The French Creek community draws its water from aquifers that are also used by neighbouring communities and private wells, of which we are only allocated a certain amount.

While we have adequate supply for the needs of our customers, we want to ensure there's capacity to support the continued growth of the community while safeguarding the local watershed.



We are committed to supporting pandemic response efforts that are helping make sure the communities we operate in remain vital and vibrant places to live and work.

# EPCOR AND COVID-19

**As the water provider for French Creek and many communities across Canada, consideration of public health is central to the work we do. In response to the COVID-19 pandemic, EPCOR activated our Emergency Coordination Centre and Emergency Operations Centres in all business units and regions to ensure the health and safety of our employees and customers and the continued delivery of reliable services.**

Some of the emergency response measures we implemented in 2020 that are still in effect include:

- Development of the EPCOR COVID Health Outlook app as part of our daily health prescreening for employees who report to an EPCOR site.
- Providing guidance documents and recommendations at [epcor.com/buildingwaterquality](https://epcor.com/buildingwaterquality) to address the risk of lower water quality now and upon re-entry in commercial buildings with low occupancy.
- Participation in regular updates with our water regulator, involvement in emergency operations centres and our business continuity plans to work collaboratively in our response across all EPCOR operations.
- Work from home arrangements where possible and changes to shift schedules to better promote physical distancing among employees who are still being asked to come to work, including staggered shift starts and shift rotations.

We continue to operate, whether it's from our homes, facilities, plants or the field. We're here to answer calls, complete repairs and conduct ongoing maintenance. Because now, more than ever, our communities are counting on us.

# 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.**

## Ensuring Water Quality

In 2020, 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 residents of British Columbia. 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 Guidelines for Canadian Drinking Water and B.C. water quality regulatory requirements.

## Lead in Drinking Water

In March 2019, Health Canada announced a revised Guideline for lead in drinking water. In addition to reducing the maximum acceptable concentration for lead, the Guideline requires lead testing to be taken at the tap from within a resident's home or business and takes steps to recognize that premise plumbing is an important source of lead in drinking water.

As part of our program to meet the new Guideline, we are determining lead levels at the tap by testing a randomized, representative sample of properties within the community. Customers will receive the results of their sampling and recommendations based on whether their results are above or below the Guideline.





In addition, we will be sharing educational information with members of our Community Advisory Panel, and through digital advertising on tips to ensure good water quality at the tap.

Last year, EPCOR had a plan in place to begin sampling but for the safety of our customers and our employees, we rescheduled for spring 2021 and have amended the plan to adhere to COVID-19 recommendations. Our French Creek team has put the pieces in place to get the information they need to meet this new standard.

### **Safe and Clean Drinking Water**

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.

Tests at various levels and for different parameters are conducted daily, weekly and monthly. While our local operators test and calibrate the equipment used in reporting water quality results on a daily basis, we also have certified technicians calibrate and check all water lab equipment annually but due to COVID-19 the certified technicians were unable to conduct inspections in 2020.

The following tables provide detailed information on the sampling and testing completed in 2020.

## 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 ( $\mu\text{g/L}$ ).
- One part per billion is equivalent to one drop in 520 bathtubs full of water or one second in 32 years.

## Abbreviations

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

## Physical and Chemical Water Quality Data for French Creek Distribution Water for 2020

Parameter	Units of Measure	Annual Minimum Recorded	Annual Maximum	Annual Average Recorded	Guidelines <sup>1</sup>
<b>Bacteria</b>					
E. Coli	CFU/100 ml	<1	<1	<1 GM	0
Total Coliforms	CFU/100 ml	1	<1	<1 GM	0
<b>Disinfection By-Products</b>					
Trihalomethanes	µg/L	<4.0	116	47.9	100
Haloacetic Acid	µg/L	<2.0	215	45.6	80
<b>Other</b>					
Free Chlorine	mg/L	0.22	1.36	0.84	>0.20
pH		7.2	8.2	7.6	7.0–10.5 (AO)
Temperature	°C	5	20	11	15 (AO)
Turbidity	NTU	0.05	0.39	0.17	1 (OG)

<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 E.Coli (2020)

Sampling Location	No. of Samples	Units of Measure	Total Coliform Max	E. Coli max	Guidelines <sup>1</sup>
Admiral Tryon	23	CFU/100 ml	<1	<1	0 CFU/100 ml
Kasba Circle	23	CFU/100 ml	1	<1	0 CFU/100 ml
Black Brant	24	CFU/100 ml	<1	<1	0 CFU/100 ml
Hawthorne Rise	24	CFU/100 ml	<1	<1	0 CFU/100 ml
Miller Road	24	CFU/100 ml	<1	<1	0 CFU/100 ml
French Creek House	24	CFU/100 ml	<1	<1	0 CFU/100 ml
Sunrise Drive	24	CFU/100 ml	<1	<1	0 CFU/100 ml
Mid Island Co-op	24	CFU/100 ml	<1	<1	0 CFU/100 ml
Drew Road Filter 1	12	CFU/100 ml	<1	<1	0 CFU/100 ml
Drew Road Filter 2	12	CFU/100 ml	<1	<1	0 CFU/100 ml
Drew Road Filter 3	12	CFU/100 ml	<1	<1	0 CFU/100 ml

## Physical and Chemical Water Quality Data for French Creek Distribution Water for 2020

Substance	Units of Measure	Annual Minimum Recorded	Annual Maximum	Annual Average Recorded	Guidelines <sup>1</sup>
<b>Trace Metals</b>					
Aluminum	mg/L	<0.0050	0.0428	0.0126	0.2 (AO)
Antimony	mg/L	<0.00020	<0.00020	<0.00020	0.006
Arsenic	mg/L	<0.00050	0.0007	0.00054	0.01
Barium	mg/L	0.0088	0.0176	0.014	2.0
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	0.05336	2/1.0 (AO)
Iron	mg/L	0.010	0.010	0.010	0.3 (AO)
Lead	mg/L	0.00039	0.00072	0.000496	0.005
Magnesium	mg/L	17.2	21.3	19.3	NA
Manganese	mg/L	<0.00020	0.00065	0.00042	0.12/0.02 (AO)
Nickel	mg/L	<0.00040	0.0011	0.00054	NA
Potassium	mg/L	0.84	2.80	1.39	NA
Selenium	mg/L	<0.00050	<0.00050	<0.00050	0.05
Silicon	mg/L	11.7	14.8	13.4	NA
Sodium	mg/L	9.3	27.3	15.0	200 (AO)
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	0.0002658	NA
Vanadium	mg/L	<0.0010	0.0049	0.0032	NA
Zinc	mg/L	0.0085	0.0136	0.01076	≤5.0 (AO)
Zirconium	mg/L	<0.00010	<0.00010	<0.00010	NA

<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.



# SAFETY AND ENVIRONMENT

**The health of our water supply affects us today and tomorrow. That's why EPCOR goes above and beyond to protect the environment while ensuring future generations have access to clean and safe water.**

EPCOR's reputation for transparency and accurate, timely reporting to provincial and federal regulators brings peace-of-mind to the communities that we serve. In 2020, there were no releases or contraventions to report.

## Continuous Training

We are proud of our safety record in French Creek. Our team hasn't had a single lost-time incident in the past 14 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, such as Hazardous Energy Isolation, Confined Space Entry, First Aid, Safe Driving and Construction Safety, just to name a few. The team also regularly participates in emergency response plan practices, which in 2020 included Confined Space Rescue practices.

There were also preventative activities carried out, including regular safety meetings, site inspections, safe work plans, Safety Training Observation Program (STOP) cards and hazardous energy isolation permits.

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

**We are proud to report that for the 14<sup>th</sup> consecutive year, EPCOR French Creek has not had a reportable environmental incident.**



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 II 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 Lead Hand certified at the highest level (Level IV Water Treatment and Water Distribution), an Operator who holds the next highest certification (Level III Water Treatment and Water Distribution) and a second Operator who holds a Level II Water Distribution and a Level I Water Treatment certification.

# 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 2020, EPCOR responded to and resolved 14 service disruptions including water leaks and outages.

## Community Engagement

We endeavour to be a neighbour of choice wherever we operate by proudly supporting local non-profit and charitable organizations through donations, sponsorships and employee participation in community events.

Due to the pandemic, EPCOR was unable to participate in annual local events. Instead, we used our quarterly customer newsletter and produced educational social media messaging to inform customers about ways to conserve and use water more efficiently, as well as actions to protect the utility infrastructure and environment.

## Ensuring Water Quality in the Region

EPCOR works with neighbouring water purveyors on matters related to water quality and source water protection in the region. As part of the Eastern Vancouver Island area, as outlined by the Province of B.C., EPCOR confers with the Regional District of Nanaimo, North Cedar Improvement District, the City of Nanaimo and the City of Parksville on topics including:

- Updates on current water supply, as well as forecasted demands
- Drought response status and watering restrictions stages
- Collaboration on essential communications





## 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 three-year term and meet three to four times annually.

In 2020, EPCOR postponed a CAP meeting that was scheduled for mid-March, as COVID-19 restrictions came into effect. The meeting was rescheduled and held virtually in May 2020 to provide an update on EPCOR's operations, including EPCOR's COVID-19 response, as well as to host a panel discussion on the 2020 Master Plan and 2021-2023 Rates Application. No further CAP meetings were organized in 2020 due to the pandemic.

# 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, installation of new hydrants, replacement and upgrades of water meters and increased water quality monitoring.

## Capital Programs

We proactively manage the infrastructure through regular maintenance, evaluations and improvement programs.

Capital programs vary from those included in the maintenance program to ideas identified by EPCOR subject matter experts to help ensure the utility is at the forefront of industry best practices.

In 2020, we completed the following improvements:

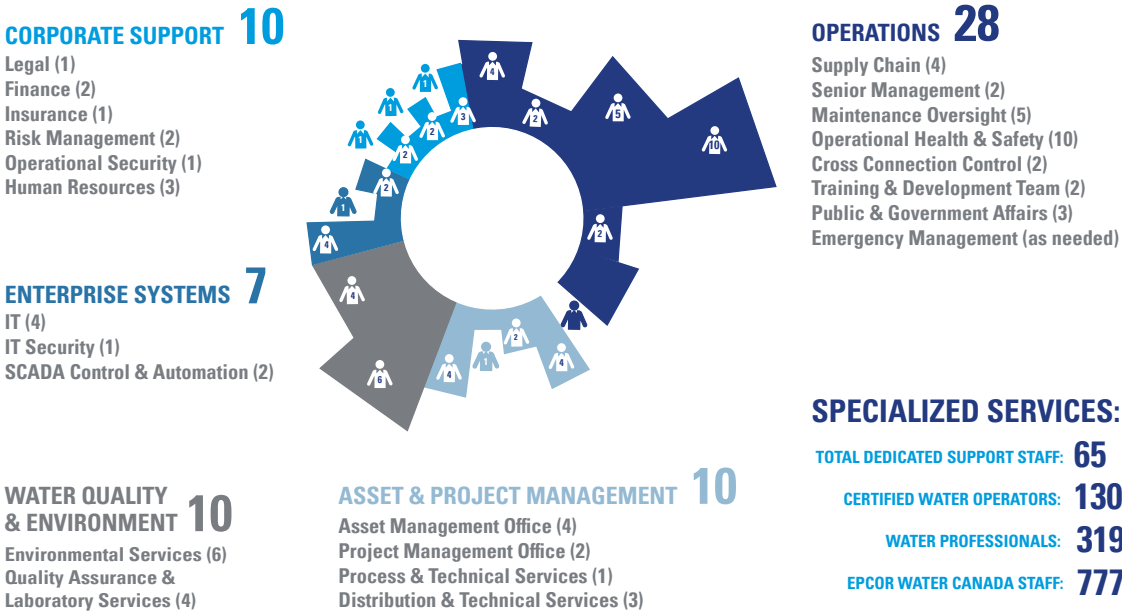
- replaced 100 water meters
- inspected all fire hydrants
- installed four new fire hydrants to service new subdivisions in the area
- decommissioned the Oceanside Well in accordance with the B.C. groundwater regulations
- Rehabilitated one water well as part of the Utilities Well Rehabilitation program to ensure well assets are maintained and able to remain productive

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

# 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.





**EPCOR French Creek**  
10D – 1343 Alberni Hwy  
Parksville, BC V9P 2B9