# Natural Gas Pipeline Safety and Emergency Information

## For Emergency Responders

**Contents:**



**Emergency number: 1-800-663-9931**

ENBRIDGE®
*Life Takes Energy™*

## About Enbridge

Life takes energy: to heat our homes, to feed our families, to fuel our vehicles. Enbridge connects people to the energy they need to help fuel their quality of life.

A global energy infrastructure leader with a vision to be the leading energy delivery company in North America, our assets are diversified and balanced between natural gas and oil. As the owner and operator of thousands of kilometres of pipelines, our highest priority is operating our assets safely and reliably to protect the people, the communities and the environment located nearby.

We transport approximately 20 percent of the natural gas consumed in the U.S and approximately 25 percent of the crude oil produced in North America.

We distribute energy, operating North America's largest natural gas utility by volume and third largest, by customer count.

We also generate energy, with a renewable portfolio that includes nearly 2,000 megawatts (MW) of capacity—enough to supply nearly 900,000 homes.

**In case of emergency**

Our pipelines are monitored 24/7.
If you suspect a pipeline emergency, please call Enbridge's toll-free, 24-hour emergency number for your area:

**1-800-663-9931**

**How to reach us**

**Public Awareness hotline**
(Non-emergencies only)
**1-877-640-8665**

**Email**
**cdnpublicawareness@enbridge.com**

**Mail**
Public Awareness Program
200,425 1 St. S.W.
Calgary, AB T2P 3L8

**Website**
**enbridge.com/emergencymanagement** or **enbridge.com/publicawareness**

# Pipeline safety: A shared responsibility



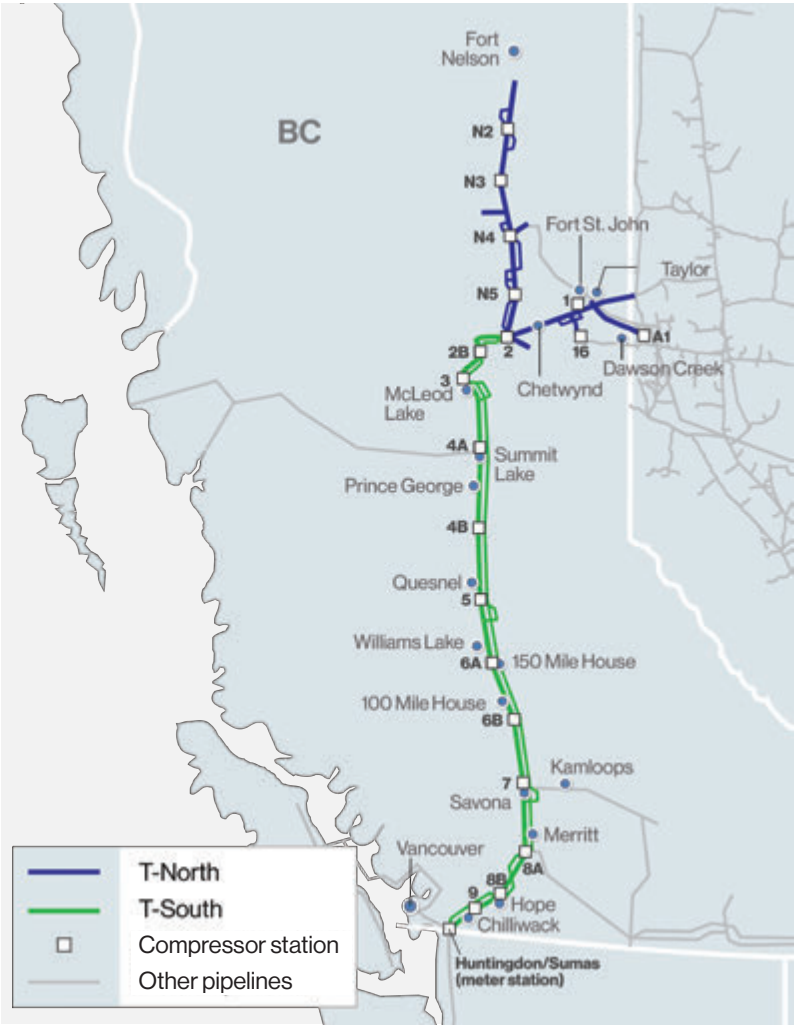
Keeping in touch with you is very important to us; that's why we contact those who live, work and congregate near our systems on an ongoing basis.

This brochure is intended for emergency responders—including firefighters, members of law enforcement, 9-1-1 dispatchers, emergency medical technicians, emergency managers, medical facilities and mutual aid partners.

In addition to containing relevant excerpts from our Emergency Response Plan, this brochure also helps inform you about your vital role in pipeline safety, which may include:

- Coordinating a community emergency response plan
- Activating your organization's emergency response plan
- Contacting the pipeline operator if your organization receives the initial notification of a potential pipeline emergency
- Providing medical aid and other lifesaving services, if necessary
- Working with Enbridge to keep the public safe in a pipeline emergency by disseminating information and determining and implementing evacuation procedures, if necessary

We ask that you read and then share with your agency or department, the important information in this brochure.


Fort Nelson
BC
N2
N3
N4
N5
Fort St. John
Taylor
1
A1
2B
2
16
Dawson Creek
3
McLeod Lake
Chetwynd
4A
Summit Lake
Prince George
4B
Quesnel
5
Williams Lake
6A
150 Mile House
100 Mile House
6B
Kamloops
7
Savona
Merritt
Vancouver
8A
8B
9
Hope
Chilliwack
Huntingdon/Sumas (meter station)
T-North
T-South
Compressor station
Other pipelines

Our BC Pipeline system stretches from Fort Nelson in northeast BC and from Gordondale, near the BC/Alberta border, south to the Canada/U.S. border at Huntingdon/Sumas.

This system, which serves markets throughout BC and the Lower Mainland, the U.S. Pacific Northwest and beyond, transports approximately 60 percent of the gas produced in the province.

Enbridge takes its responsibility for safe pipeline operation very seriously.

Being responsible for pipeline safety, however, does not mean we're in it alone. We work year-round to to keep our operations safe and reliable and we regularly communicate important information to local governments, emergency services, utilities, contractors, landowners, tenants, regulators and neighbours.

While most of our systems are buried out of sight beneath the ground in the right-of-way (ROW), we never lose sight of the bigger picture of our potential impact on the air, water and land around us and our responsibility to preserve all elements of our environment.

In fact, our practices—including pipeline design, construction, testing, maintenance, operation and safety practices—are subject to government regulations, which we meet or exceed.

We constantly monitor all of our activities and take every step to make sure we protect the environment. Our control centres constantly monitor and control our network of pipelines, keeping operators continuously apprised of conditions and trends along the ROW. We also have field response staff situated along the ROW, in the unlikely event of an emergency.

**Please see the back of this brochure for a map of field response team locations near you.**

A ROW is a strip of land of varying widths that may contain one or more pipelines.


### Pipeline ROW and pipeline location

A pipeline follows a narrow, clear stretch of land, or ROW, that allows our employees and contractors to access the pipeline for inspections, maintenance, testing and emergencies. Approximate location of the pipeline can be determined by the pipeline marker.

A few important notes when it comes to ROW and pipeline markers:

- Markers should never be removed or relocated.
- If an emergency is suspected or discovered, call the number on the marker.
- ROW must be kept free from structures and obstruction to allow proper inspections, access for maintenance or in case of an emergency.
- The pipeline marker displays the operator's name, the contents and an emergency phone number.
- Markers should not be used to give exact locations and are not an alternative to contacting **clickbeforeyoudig.com**.

There may also be other pipelines in the area. As emergency responders, you should familiarize yourself with all pipeline systems in your jurisdiction.

All pipeline markers provide important information including the pipeline owner name, the type of product being carried and an emergency number for reporting pipeline emergencies: **1-800-663-9931.**

## Natural gas is highly pressurized as it travels through a pipeline.

### Compressor stations

To ensure the natural gas remains pressurized, it must be compressed periodically along the pipeline. This is accomplished by using compressor stations where gas is compressed either by a turbine, a motor or an engine.

Over extended distances, friction and elevation differences reduce the pressure within the pipeline, which slows the flow of gas. That's where compressor stations play a significant role.

These stations, placed along a transmission pipeline system, give the gas a needed "boost" helping it get from one station to the next. Compressor stations operate 24 hours a day, 365 days a year and are monitored 24/7 by highly-trained personnel at a centralized gas control center.

We have strict procedures in place at each of our stations and employ a variety of safety systems and practices to protect the public, employees and our facilities. In the unlikely event of an incident, every station has an emergency shutdown system that stops the compressor units, isolates and vents the compressor station gas piping, and diverts gas in the pipeline around the station.

### Signs of a leak

Given our thorough maintenance, testing, training, monitoring and safety programs, a pipeline leak is unlikely.

However, if one were to occur, it's important that you know the warning signs and how to respond in the event of an emergency, or if you suspect pipeline operations have been disrupted in any way.

**You might see:**

- Dirt being blown or appearing to be thrown into the air
- Flames, if gas is ignited
- A white vapor stream or mist-like cloud
- Unexpected frost buildup on the ground
- Dead or dying vegetation in an otherwise green area
- Continuous bubbling in wet areas or at a pond, creek or river

**You might hear:**

- An unusual roaring, blowing, hissing or loud whistling sound

**You might smell:**

- Odourized pipelines: An unusual sulphur or rotten egg odour
- Unodourized pipelines: A slight smell similar to diesel fuel or oil

Most natural gas has a naturally occurring slight petroleum smell similar to diesel, oil or propane. However, typically when natural gas is distributed into homes and businesses the distributor adds an odorant to enhance the smell of the gas to make it easier to detect a potential leak.

*Unlike the gas that is distributed in homes, the sweet gas in Enbridge's pipelines does not have an odourant added to enhance its smell. While you may notice a slight smell similar to diesel fuel, oil or propane, you will not smell the common rotten egg odour associated with natural gas.*

It is important that you do not create an ignition source if you suspect anything abnormal along a pipeline route. Potential ignition sources include smoking materials or open flames, cell phones, pagers, flashlights, keyless entry remotes and motor vehicles.

**It is also important to remember that emergency responders should never try to operate pipeline valves.**

# Know what's there: product information

It is important to remember that the natural gas carried on Enbridge's system is flammable, hazardous, and explosive under certain conditions.

A naturally occurring product, the sweet gas transported through Enbridge's BC system is composed primarily of methane and is non-toxic.

However, when mixed with the appropriate ratio of oxygen, it can easily ignite. Sweet gas is lighter than air and will readily disperse with the wind.

Safety Data Sheets (SDS) contain information about regulatory classification, health hazards, toxicity, first aid and fire information for the products in the pipeline.

SDS information regarding products is available at various locations across our system.

In the event of an Enbridge pipeline incident, Enbridge representatives will provide emergency responders with the SDS for the product in the pipeline.

**Characteristics of natural gas**

| Natural gas | Property or behaviour |
|---|---|
| **Appearance** | Colourless. |
| **Odour** | Sweet gas has a slight petroleum or hydrocarbon smell.<br>*Unlike the gas that is distributed in homes, the sweet gas in Enbridge's pipelines does not have an odourant added to enhance its smell. While you may notice a slight similar to diesel fuel, oil or propane, you will not smell the common rotten egg odour associated with natural gas.* |
| **Special behaviour** | Lighter than air, it rises and dissipates into the atmosphere in open areas. In enclosed areas, it collects first overhead. |
| **Hazards** | Extremely flammable and explosive under certain conditions. Asphyxiation can occur if vapors displace the oxygen in an enclosed area. |

While rare, pipeline incidents can occur. If potential trouble occurs anywhere on the line, protecting the public is our first priority.

Although our field response teams are immediately dispatched upon notification, local emergency response organizations often receive the initial report. Preparedness and quick response help to minimize the threat to the public.

Our priority on safety includes first responders, and we value the expertise you possess. That's why we are committed to strengthening our partnerships through meetings, training exercises, personal contact and information updates such as this brochure. We always appreciate hearing from you and encourage you to call at your convenience whenever you have questions or concerns.

For Enbridge, preparedness means developing integrated response plans based on open communication and teamwork. We work to provide local emergency services with the necessary information they require to respond appropriately. We also hold regular emergency response training and exercises in select locations throughout the year to keep employees' skills fresh, and to maintain strong and effective coordination with local emergency responders.

As emergency responders, you are trained to deal with a wide variety of potentially dangerous conditions.

In the case of a natural gas pipeline leak or rupture, your early presence on the scene can help us determine what problem has occurred, what damage or disruption is either present or preventable, and how we can work together to manage the situation.

Maintaining open communication and a close working relationship with local authorities and emergency responders is essential for us in safeguarding the communities along our pipeline routes.

## Enbridge field response teams are generally dispatched to a pipeline incident in one of several ways:

- The Enbridge 24-hour control centre detects or is notified of and confirms a potential problem and, depending on the situation, notifies emergency responders directly.
- A landowner, tenant or member of the public suspects a potential problem and phones the toll-free emergency response number.
- An Enbridge representative is already on the scene and contacts emergency responders for assistance (such as monitoring access, controlling traffic, fighting fires or evacuating residents).
- An emergency response organization receives the initial report.

### Dealing with calls

The guidelines below may augment your standard procedure for handling emergency calls that relate to pipeline emergencies. This information is also provided to landowners, residents and tenants.

1. Advise the caller that Enbridge emergency response crews will be contacted immediately and will arrive at the site as soon as possible.
2. If the caller reports a hydrocarbon or petroleum smell, advise the following at your discretion:
   - If you can do so safely, turn off any ignition source that you and others around you may be using. Put out cigarettes or other lit materials.
   - **Leave the area quickly.** Move as far away from the leak as possible, to a safe position upwind of the potential leak site.
   - Avoid contact with escaping liquids, vapour clouds or gases.
   - Don't start your car or any other equipment that could be a potential ignition source.
3. **Do not operate pipeline valves.**
4. If an evacuation centre has been designated, advise the caller of the location.
5. Contact Enbridge using our toll-free, 24-hour emergency number: **1-800-663-9931.** This number is also located on all pipeline marker signs along the ROW.

# What you shouldn't do

Never attempt to operate pipeline valves or extinguish any pipeline fires. Doing so may prolong or worsen an incident—or even cause another leak in the pipeline.

Enbridge control centre personnel can shut down valves automatically, while trained personnel are required to manually close other valves.

Do not create a spark. Possible ignition sources include:

- Smoking materials
- Open flames
- Light switches
- Telephones, cell phones, pagers, flashlights, keyless entry remotes
- Motor vehicles
- Other electronic devices

If a fire occurs at an Enbridge facility, unless lives are at risk, we ask that fire crews stay outside of the station property until Enbridge representatives arrive.

We work to protect people, property and the environment. In the event an incident occurs, let the primary fire burn and control any secondary fires, if safe to do so.

# Key actions for emergency responders

### 1. Notify Enbridge

Immediately phone the Enbridge emergency toll-free number. Our monitoring system may have already alerted us to the disruption, but please call to be sure.

When calling, please provide:

- Name
- Location
- Description of the emergency

Toll-free emergency number
**1-800-663-9931**

### 2. Establish a safety zone

Establish a safety zone- minimum radius of 650 m.

- Protect people first, assets and the environment.
- Evacuate if necessary and safe to do so.
- Isolate area and deny entry.
- Eliminate all ignition sources.
- If possible, monitor atmosphere (natural gas detection equipment).
- Contain or control secondary fires if safe to do so.

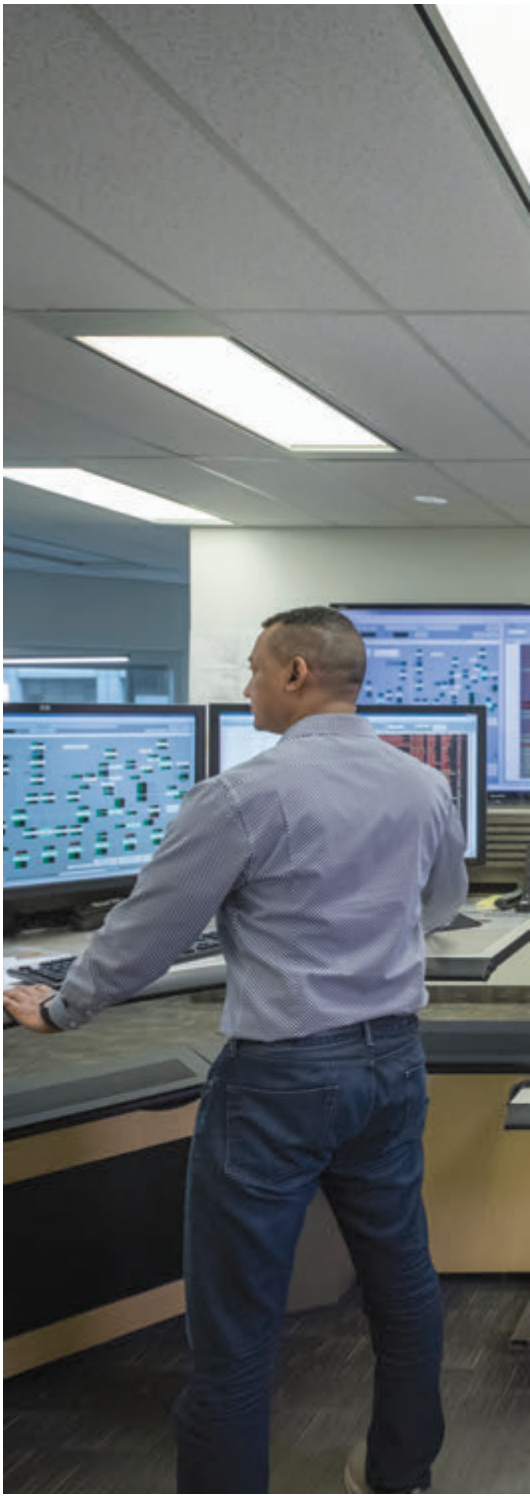
### 3. Unified command

- Set up unified command.
- Enbridge employees integrate into the established unified command structure.
- Maintain lines of communication until an Enbridgerepresentative arrives on site.
- Enbridge can provide specific pipeline information such as:
  - Pipeline pressures
  - Valve closures and/ or system shut in
  - Estimated time until line is depressurized

## Planning ahead

Planning ahead allows us to work together as an effective team if an emergency occurs.

Enbridge's visits with local authorities and emergency response organizations are an opportunity to discuss a coordinated approach to handling pipeline incidents.



**Immediate response**

In the event of an incident, our emergency plan will immediately go into effect.

- Enbridge will work with local emergency responders to identify and solve the problem.
- Personnel from our control centre have the ability to quickly shut down and isolate sections of the pipeline.
- Local emergency responders will be notified. They may secure the area or move residents to a safe location depending on the situation.
- Our trained field response crews will arrive to deal with the release and repair the damaged pipe or facility.

If an incident occurs, Enbridge's field response teams are responsible for ensuring the problem is dealt with quickly and efficiently. Enbridge personnel will work to keep responders and the public safe, protect the environment from further harm and conduct all necessary follow-up steps to return the community to its original condition.


11:06
11:06
12:06
14:06

Enbridge uses the ICS for managing a response to an emergency.

Its organizational structure is designed to coordinate with other responding agencies.


Elements of response management enabled through use of the ICS:

- Incident Action Plan – define objectives, strategies, resources that contribute to public safety, responder safety and the environment
- Site safety and security
- Communications plan
- Containment
- Clean-up and waste management
- Public information management

Through specific roles under a unified command system, Enbridge will work together with local responders to effectively, safely and efficiently manage any incident along our system.

**Basic ICS structure**

| Command | Operations | Planning | Logistics | Finance |
|---|---|---|---|---|
| Overall management and determination of priorities and objectives | Reduce or eliminate the hazard, implement containment and control measures for the safety of responders, the public and the environment, and restore normal operations | Collection, evaluation and dissemination of tactical information, development of an Incident Action Plan, and coordination of resource identification | Supplying support needs | All financial matters |

The ICS is a flexible, scalable tool that provides a common framework, uses common terminology and has standardized job aids.

These attributes help ensure that the incident swiftly transitions from the reactive to proactive phase by setting up a chain of command, establishing a set of priorities and strategies, and coordinating resources to address those priorities, often with our emergency response partners. By using the ICS, trained personnel from across the organization can be deployed to support an incident.

Emergency response training exercises are a key part of our emergency response preparedness. Frequent exercise participation by all emergency response staff is critical to maintaining response readiness.

### Online emergency responder training

The American Petroleum Institute and the Association of Oil Pipe Lines have created a free online training portal to assist first responders on the techniques and skills necessary to address liquids or natural gas pipeline emergencies. Content for these offerings comes from the National Association of State Fire Marshals "Pipeline Emergencies" curriculum and as such is considered best-in-class.

The three available courses are organized by need:

1. Emergency Personnel Awareness (Introduction)
2. First Responders Operations (Intermediate)
3. Hazardous Materials Technician (Comprehensive)

Throughout the courses, participants will learn:

- The basics of gas and liquids pipeline operations
- Potential hazards associated with products
- Pipeline emergency response tactics
- How to manage pipeline emergency response
- Guidance for creating your County Pipeline Plan
- How to apply the information to real-life situations

The training is available at **mypipelinetraining.com.** Certification is also available, by request, upon completion of the program.

### Exercise participation

Enbridge's Field Emergency Response Plans are available to all emergency response organizations within proximity of our operations. The Field Emergency Response Plans focus on first responder actions, including how Enbridge will work with first responder organizations during the initial stages of a pipeline incident.

If you would like to participate in an emergency response exercise, please call the number for your area, listed on the last page of this brochure and ask to speak to an emergency response coordinator.

All plans are available online at **emergencyresponderinfo.com**. If you have any questions or would like to provide feedback on our emergency response plans, please contact us.

### Types of training for Enbridge personnel

Enbridge response personnel receive regular training – both in classroom and field demonstrations including:

- Pipeline operating practices and procedures (including emergency response)
- Implementation and activation of Emergency Response Plans
- Safety procedures
- Selection and use of personal protective equipment
- Material hazards and risk assessment techniques
- Basic first aid skills
- Initiating notifications
- ICS organization during an emergency
- Media communications

### Types of exercises

- Workshops
- Tabletop exercises
- Drills
- Functional exercises
- Full-scale exercises

### Media communications

A coordinated approach to media communications allows accurate, important information to be provided to the public with minimum confusion or delay. Enbridge has trained and qualified spokespeople to coordinate public statements and respond to media inquiries. Our spokespeople can be reached at **1-888-992-0997** or by email at **media@enbridge.com**.

Prevention is key.
While Enbridge has developed effective emergency response procedures, we continue to focus on all of the tools, technologies and strategies that support safe and reliable operations.

**Maintaining pipeline integrity**

From the purchase of high quality steel pipe manufactured to meet stringent criteria, to the cathodic protection system we employ to prevent corrosion, Enbridge makes the safety of the system a priority before and during its operation with a variety of processes and technologies.

These measures include:

- Sophisticated monitoring and control systems that operate 24 hours a day, 365 days a year
- Regular pipeline ROW patrols by aircraft and in some areas by land
- Investigative dig programs to support and confirm pipeline integrity
- Meeting and exceeding industry standards and regulations
- Public awareness education
- Field response staff at key locations along the pipeline route
- Research and development on technologies designed to prevent corrosion and cracking
- The use of durable coating systems and cathodic protection (use of low voltage electric current) to protect pipe from external corrosion
- The use of increasingly sophisticated in-line inspection technologies to measure the size and location of every minuscule change in the integrity of every line in our system

**Security**

Enbridge views the security of our facilities as an integral part of our Emergency and Security Management Program. As such, we continue to exercise our plans, participate in industry groups and maintain open communications and close working relationships with local authorities and emergency responders.

## How to reach us

**Emergency number** | **1-800-663-9931**

This page contains important phone numbers you can use to contact an Enbridge representative.

If you have any comments or questions, please contact us. Please call your local regional office listed to the right and ask to speak to an Enbridge representative or the emergency response coordinator for your area.

**A helpful tip:** Save the Enbridge emergency phone number in your list of contacts or cell phone for quick reference in an emergency.

If you suspect there is a problem with an Enbridge pipeline, please call us toll-free, 24-hours a day: 1-800-663-9931.

More information can also be found online at **enbridge.com/emergencymanagement**.

For the emergency response coordinator in your area contact: **1-800-668-2951**

**For general information about Enbridge Pipelines Inc., contact us at** 1-877-640-8665 or by email at cdnpublicawareness@enbridge.com.

### Crossing during an emergency

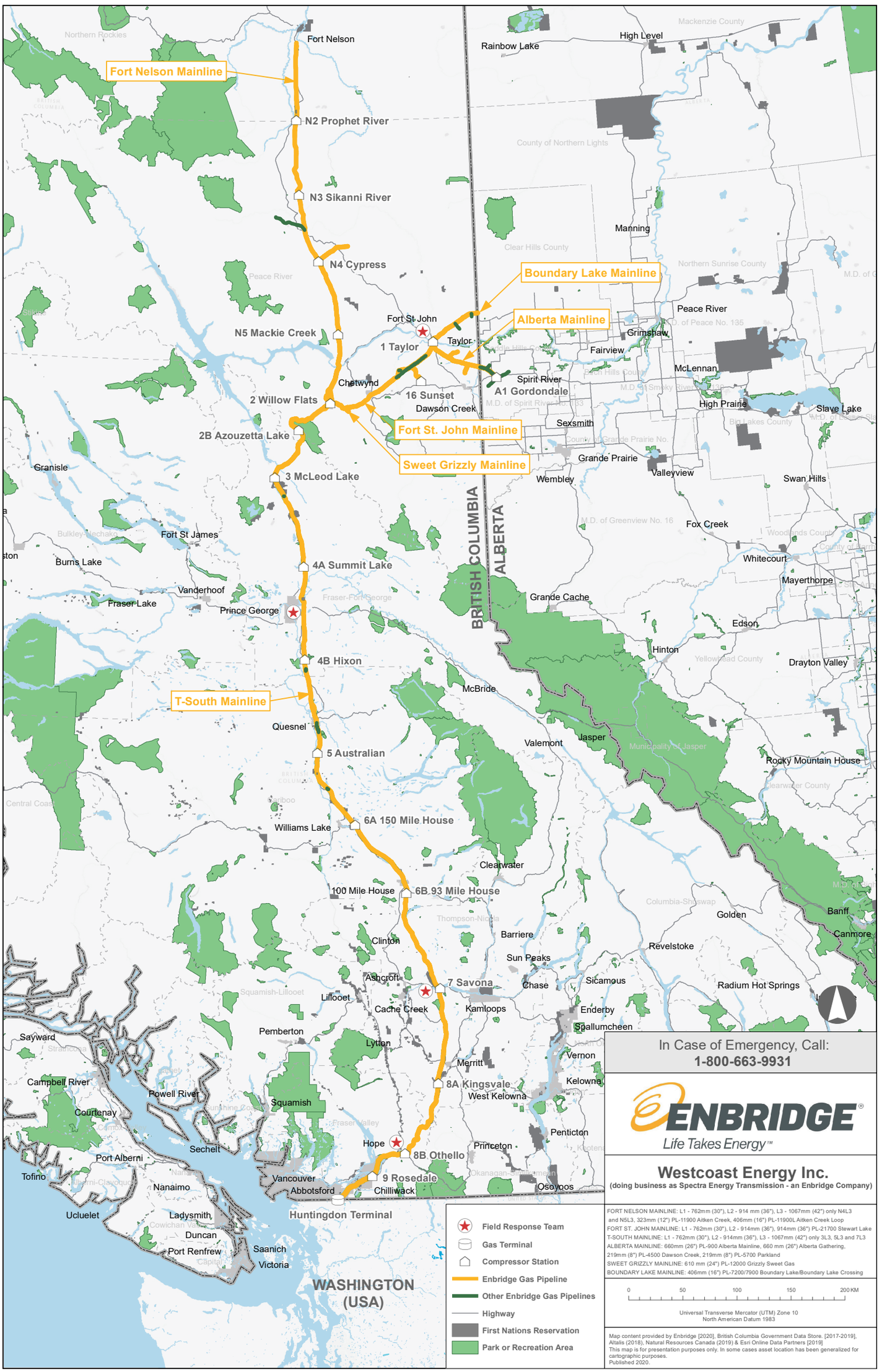
If a crossing is required while responding to an emergency, please call Enbridge's emergency number before crossing the ROW.

**› 1-800-663-9931**

### Non-emergency crossings

For requests and questions about vehicle and agricultural crossings, email **crossingscanada@enbridge.com.**

Westcoast Energy Inc., an Enbridge Company
Public Awareness Program, 2022




In Case of Emergency, Call:
**1-800-663-9931**

ENBRIDGE®
Life Takes Energy™

## Westcoast Energy Inc.
**(doing business as Spectra Energy Transmission - an Enbridge Company)**

FORT NELSON MAINLINE: L1 - 762mm (30"), L2 - 914 mm (36"), L3 - 1067mm (42") only N4L3 and N5L3, 323mm (12") PL-11900 Aitken Creek, 406mm (16") PL-11900L Aitken Creek Loop
FORT ST. JOHN MAINLINE: L1 - 762mm (30"), L2 - 914mm (36"), 914mm (36") PL-21700 Stewart Lake
T-SOUTH MAINLINE: L1 - 762mm (30"), L2 - 914mm (36"), L3 - 1067mm (42") only 3L3, 5L3 and 7L3
ALBERTA MAINLINE: 660mm (26") PL-900 Alberta Mainline, 660 mm (26") Alberta Gathering, 219mm (8") PL-4500 Dawson Creek, 219mm (8") PL-5700 Parkland
SWEET GRIZZLY MAINLINE: 610 mm (24") PL-12000 Grizzly Sweet Gas
BOUNDARY LAKE MAINLINE: 406mm (16") PL-7200/7900 Boundary Lake/Boundary Lake Crossing

Map content provided by Enbridge [2020], British Columbia Government Data Store, [2017-2019], Altalis (2018), Natural Resources Canada (2019) & Esri Online Data Partners [2019]
This map is for presentation purposes only. In some cases asset location has been generalized for cartographic purposes.
Published 2020.