

Pipeline Safety and Emergency Information

for emergency and public officials



You are receiving this brochure because we have identified you as an **Emergency or Public Official** with responsibilities in the vicinity of Enbridge's pipelines and/or related facilities. Please keep this brochure and share this important information with other emergency and public officials.

Emergency number: 1-888-813-6844

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Read this brochure,
then scan for a chance
to win an \$800 grant.



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.

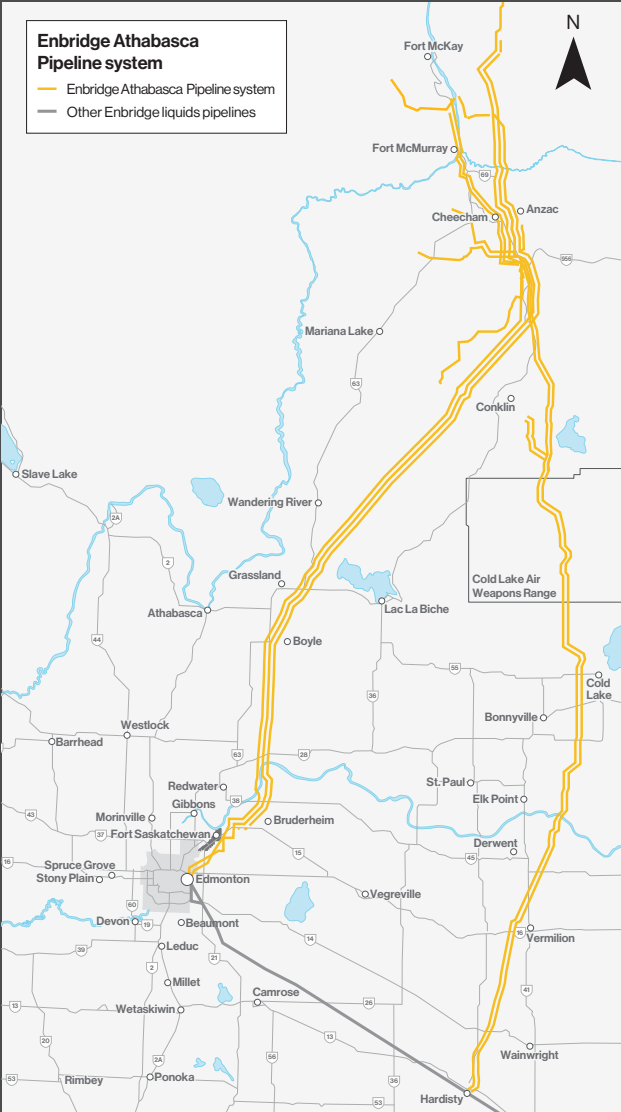
Enbridge is a global energy infrastructure leader with a vision to be the leading energy delivery company in North America.

As the owner and operator of thousands of kilometres of pipelines transporting oil and natural gas, our highest priority is operating our assets safely and reliably to protect the people, the communities and the environment located nearby.

We deliver more than three million barrels of crude and liquids every day and transport 30 percent of the crude oil produced in North America. Moving close to 85 separate commodities on any single day, Enbridge is the largest single conduit of oil into the U.S. We distribute energy, operating North America's largest natural gas utility by volume and third largest by customer count. And we generate energy with a renewable portfolio that includes nearly 2,200 net megawatts (MW) of generation capacity – enough to supply nearly 970,000 homes.

The Athabasca system

The Enbridge Regional Oil Sands system, called the Athabasca system, consists of a network of more than 2,000 km of pipelines originating north of Fort McMurray and delivering south to Edmonton and Hardisty, Alberta.



Know what's below



Risk: Failure to dig safely can endanger yourself, emergency responders and your community. Safe digging practices can save your life.

Please make community members, permit applicants, public works departments, excavators, contractors and developers aware that they need to make a locate request by following the steps listed below.

Enbridge maintains a Damage Prevention Program in accordance with provincial guidelines. The purpose of this program is to prevent damage to our pipeline facilities from excavation activities such as digging, trenching, blasting, boring, tunneling or backfilling or other activities such as heavy equipment crossing, storage on the ROW, etc. The Damage Prevention Program also monitors the depth of cover over our pipelines and conducts regular patrols of our ROWs to monitor for unauthorized activities.

If you see someone digging or disturbing the soil and there are no flags or marks on the ground, please stop the activity and ask the person to **clickbeforeyoudig.com** or contact their local one-call centre before continuing. One should not rely on word-of-mouth, maps, memory or pipeline markers when planning a digging project.

One-call requirements

1



At least two to three business days before your project—any time you are disturbing the soil—visit **clickbeforeyoudig.com** or call your local one-call centre.

2



When you call or click, you'll be connected to a representative, where you'll be asked to provide important details about your project, such as the type of work you'll be doing, where you'll be doing it and when your project is expected to begin.

3



Your local one-call centre will provide this information to pipeline operators, such as Enbridge and other companies with buried utilities near the work site, saving you the time and trouble of contacting them individually.

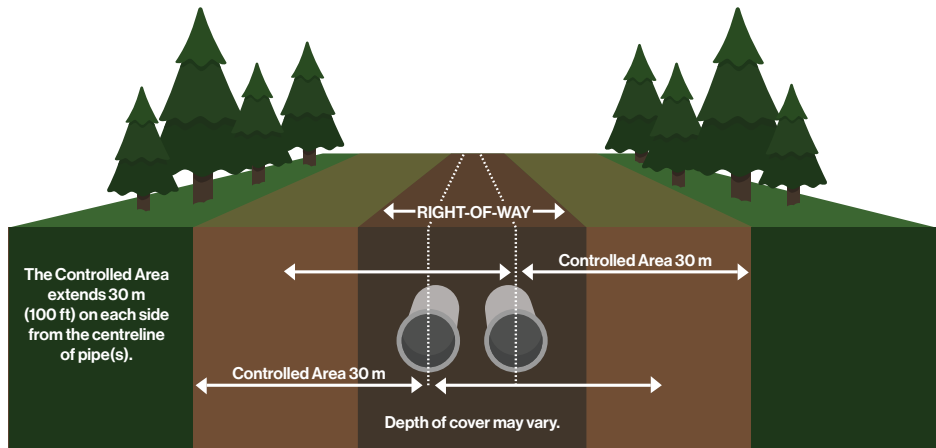
4



Within a few days, pipeline operators and utilities will respond to the one-call ticket. If line locating is required, professional locators will come to your location to mark their facilities—so you can work around them, saving yourself from possible injury or property damage.

**Click
Before
You Dig.com**

Know what's below



Pipeline ROW and pipeline location

A pipeline follows a narrow, clear stretch of land, called a 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 ROWs and pipeline markers:

- Markers should never be removed or relocated.
- The pipeline marker displays the operator's name, the contents and an emergency phone number.
- If an emergency is suspected or discovered, call the number on the marker.
- Pipeline ROW must be kept free from structures and other obstructions to allow access to the pipeline. Pipelines are patrolled from the air and the ground and obstructions prevent proper inspections.
- Markers should not be used to give exact locations and are not an alternative to contacting [clickbeforeyoudig.com](https://www.clickbeforeyoudig.com).

Consent within the controlled area and ROW

The controlled area is a 30 m strip of land, measured perpendicularly on each side from the centreline of pipe(s). Regulations require that within this area activities causing, or that might cause, a ground disturbance cannot occur without written consent from the pipeline company. If written consent for the activity is granted, you must then make a locate request to confirm the location of the pipeline and any other underground utilities. All planned construction activities on, along, under or across the pipeline must also receive approval from Enbridge and a locate request, before going ahead. Written consent from Enbridge is also required for vehicle or mobile equipment crossings within the ROW.

The Alberta Energy Regulator

Pipelines in Enbridge's Athabasca System are provincially regulated by the Alberta Energy Regulator (AER) and must comply with specific pipeline standards and regulations. As part of AER regulations, certain ground disturbance activities require approval from the pipeline company before work can commence.



Vent
marker



Line
marker



Aerial
marker

< Marker appearance may vary in your area.

Crossing or traversing the ROW



ROWs are not designed as roads or storage locations. The weight of vehicles, equipment or materials can damage pipelines below.



Do NOT do the following without obtaining Enbridge consent:

- Cross or travel along ROW with a vehicle, machinery or mobile equipment
- Park vehicles or equipment on the ROW
- Stockpile materials or construct any structures on the ROW
- Disturb the ground within the ROW

Vehicle and mobile equipment crossings

The AER requires that anyone wanting to cross the pipeline with vehicles including recreational vehicles like 4X4s, all-terrain vehicles, utility vehicles, motorcycles or mobile equipment (outside of a traveled portion of a highway or public road) submit a request to obtain the pipeline company's written consent before doing so.

By submitting your request, you provide Enbridge the opportunity to assess:

- If the vehicle, machinery or mobile equipment being used can safely cross or traverse our pipeline within the ROW at that location
- If the proposed use is safe by confirming the location and depth of cover of pipelines at the location of the crossing
- If any mitigation measures are required due to there being a potential risk or no alternative crossing locations

Crossing during an emergency:

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

> **1-888-813-6844**

Non-emergency crossings:

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

Know what's near you



Above ground facilities

While most Enbridge pipelines are buried underground, our system also includes additional facilities, such as pump stations, valve sites, storage facilities and others. It's important that you know what to expect as part of normal operations at these facilities.

Emergency and public officials like you can help us maintain a safe, secure and reliable pipeline system.

If you notice any suspicious activity or abnormal odour near one of our above ground facilities, call 911 immediately, then call Enbridge's 24-hour emergency number for your area.

Facility and purpose	Normal operations
At certain facilities, tanker trucks deliver producers' crude oil to lease automatic custody transfer (LACT) units , where it is metered and piped into crude oil storage facilities.	During normal operations, a slight odour may be noticed during oil transfers or maintenance activities. Higher truck traffic is common near LACT units.
Crude oil storage facilities are used to safely store and transport crude oil to refineries and other market destinations via pipeline.	During normal operations, a slight odour may be noticed during oil transfers or maintenance activities.
Pump stations increase pressure in the pipeline to maintain flow and are monitored 24/7 by Enbridge's control centres.	During normal operations, no significant odours should be detected.
Valve sites are located along the pipeline ROW and may be used to control the flow of products in the pipeline.	During normal operations, no significant odours should be detected.

Know what's there: Product information

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

Enbridge transports close to 85 unique commodity types. The general characteristics of the products carried on the system are similar in terms of flammability and general composition.

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 hazardous 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.

Additional information about our emergency management program can be found at enbridge.com/emergencymanagement.

Please see the chart below for information about crude oil product characteristics. Additional information about crude characteristics can be found under key public safety information in the emergency management section of enbridge.com.

Characteristics of liquid hydrocarbons








Product	Appearance	Odour	Special behavior	Hazards
Crude oil	Colour ranges from yellow to black.	Similar to gasoline or diesel fuel.	Flows with the profile of the land. Flow depends on temperature and viscosity; can be thick and slow-moving or light and able to move quickly.	Flammable and explosive under certain conditions. Suffocation can occur if vapours displace the oxygen in an enclosed area.
Natural gas liquids (NGLs)	Steam-like cloud or frost-like appearance on the ground.	Similar to gasoline.	Heavier than air. Stays close to the ground in low-lying areas.	Flammable and explosive under certain conditions. Suffocation can occur if vapours displace the oxygen in an enclosed area.
Diluents	Clear to black liquid.	Extremely strong odour similar to crude oil.	Very light and fluid, similar to gasoline.	Flammable and explosive under certain conditions. Suffocation can occur if vapours displace the oxygen in an enclosed area.
Condensate	Clear to dark brown.	Similar to gasoline or diesel fuel.	Very light and fluid, similar to gasoline.	Flammable and explosive under certain conditions.

* Some crudes and condensates contain hydrogen sulfides (H₂S), which have a rotten egg smell and are toxic in high concentrations.



Our safety measures

Safety is, and always will be, our number one priority. Our team devotes hundreds of thousands of hours every year to keeping our systems running smoothly and without incident. We invest heavily in safety measures, including:

-  Inspection and preventative maintenance programs
-  Around-the-clock monitoring of pipelines and facilities
-  Emergency response training and drills for employees and local emergency responders
-  Pressure tests on new and existing pipelines
-  Aerial and ground patrols along the pipeline ROW
-  Automatic shut-off and remote-control valves
-  High-quality pipeline material and protective coating

Enbridge has enhanced safety measures for pipelines that cross bodies of water and highly populated or environmentally sensitive areas.

To read more about our pipeline safety efforts, visit enbridge.com/safety.

Emergency information

Information for 911 dispatchers

After identifying a potential pipeline emergency and dispatching local responders, take the following actions as the situation dictates to facilitate a safe, effective response:



Do

- Reassure the caller emergency response crews and Enbridge will be contacted and will arrive soon.
- Advise the caller of an evacuation center if it has been designated.
- Call Enbridge's toll-free, 24-hour emergency number.
- Instruct caller to move as far away from the leak as possible (upwind if possible), avoiding contact with escaping liquids and gases.



Do NOT

- Drive into the area or start your car.
- Light a match.
- Turn on or off anything that may create a spark (cell phone, telephone, light switch, vehicle alarm, vehicle keyless entry system, flashlight) – until you are in a safe location.
- Operate pipeline valves.
- Remain in a building if the smell is stronger inside than outside.

Resources

Free training opportunity for emergency responders and 911 dispatchers

Emergency responders and others responsible for public safety in our counties of operation – including 911 dispatchers – can access the National Association of State Fire Marshals' Pipeline Emergencies online training program at mypipelinetraining.com. Certification is provided upon completion of the program.

Emergency Response Plans

Enbridge also has Emergency Response Plans available to first responders. The plans describe our Emergency Management Program, including how we manage mitigation, preparedness, response and recovery.

Plans are available online at emergencyresponderinfo.com. If you have any questions, would like to request a map of your area, or would like to provide feedback on our emergency response plans, please email erinfo@enbridge.com.

Security

Enbridge views the security of our facilities as an integral part of our Emergency and Security Management Program. If you notice suspicious activity near or on our above ground facilities, call 911, then call Enbridge's 24-hour emergency number.

Incident Command System



Enbridge utilizes the Incident Command System (ICS) for managing a response to an emergency.

The ICS organizational structure is designed to coordinate with other responding agencies and to include those agencies inside a Unified Command Post for a coordinated response.

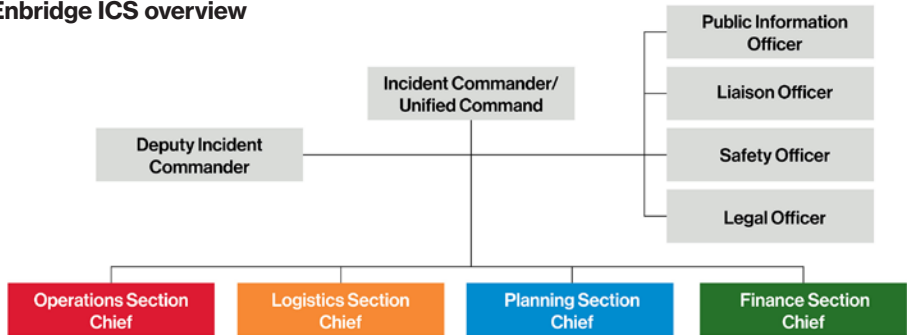
The ICS is a flexible, scalable tool that provides a common framework, uses common terminology and has standardized functional roles.

By using the ICS, trained personnel from throughout the organization can be deployed to support any incident.

Elements of the response management enabled through use of the ICS include:

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

Enbridge ICS overview



Contact Enbridge

In case of an emergency, please find a safe place to **call 911** and then call Enbridge at:

1-888-813-6844

How to reach us



Phone:
(non-emergencies only)
1-877-640-8665



Email:
cdnpblicawareness@enbridge.com



Mail:
Public Awareness Program
200, 425 1st Street S.W.
Calgary, AB T2P 3L8



Website:
enbridge.com/publicawareness

To reach an Enbridge land representative, call **1-800-668-2951** (toll-free) or email **landcontactcan@enbridge.com**.

Call or Click Before You Dig



- Utility Safety Partners
(formerly Alberta One-Call)
1-800-242-3447

Links for more information

If you are planning work on the right-of-way, such as building a fence, deep tilling, digging a ditch, operating equipment or other activities, please email **crossingscanada@enbridge.com**.

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

More information about our emergency management program can be found at **enbridge.com/emergencymanagement**.

AER
aer.ca

AER: Working Around Oil and Gas Pipelines
aer.ca/providing-information/by-topic/pipelines/working-around-oil-and-gas-pipelines

Alberta Pipeline Act
qp.alberta.ca/documents/Acts/p15.pdf

Alberta Pipeline Rules
qp.alberta.ca/documents/Regs/2005_091.pdf

Enbridge Inc.
enbridge.com

Emergency response information



Risk: Ignoring the critical safety information below could create additional hazards for the public, responders and the environment.

Recognizing a pipeline leak

In an emergency, protecting the public is your top priority – and it's our top priority as well. We value your expertise as public safety officials, and we're committed to providing you with the information and training you need to respond in the unlikely event of an emergency involving our pipelines or facilities. Although we immediately dispatch our emergency response teams upon notification, local 911 dispatch centres or other public safety officials typically receive the initial report. The following items listed below could indicate a potential pipeline emergency and may be reported by callers or emergency responders.



You might see:

- Coloured liquid on the ground
- Flames, if a leak has ignited
- Oily rainbow-like sheen on water surfaces
- Continuous bubbling in a wet area
- Discolored snow or vegetation in an otherwise green area
- A steam-like cloud or fog
- Unexpected frost buildup on the ground
- Dirt being blown or appearing to be thrown into the air



You might hear:

- An unusual roaring, blowing or hissing sound



You might smell:

- An unusual odour similar to diesel fuel, gasoline, sulfur or rotten egg

It is important to know that an unintended release of product from the pipeline has potential hazards including:

- Products may be flammable and explosive under certain conditions.
- Suffocation can occur if vapours displace the oxygen in an enclosed area.

Steps for a safe response

1

Abandon any mechanized equipment and ignition sources in the suspected leak's vicinity.

2

Secure the site and determine a plan to evacuate or shelter in place.

3

Monitor for hazardous atmospheres.

4

Control and redirect traffic.

5

Provide immediate access to Enbridge pipeline representatives.

6

Implement your local emergency plan.

What NOT to do during an emergency response



Do not operate pipeline valves or extinguish any pipeline fires. Doing so may prolong or worsen an incident, or even cause another leak in the pipeline. Our control centre personnel can close some valves automatically, while trained employees must manually close others.



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 and other electronic devices.



Do not enter an Enbridge facility without permission. If a fire occurs at one of our facilities, unless lives are at risk, we ask that fire crews stay outside of the property.