

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

Contents:

Safe digging information	3
How to determine where our pipelines are located	4
Crossing or traversing the right-of-way (ROW)	5
Emergency information and response procedures	9
How to contact Enbridge	11
Information on pipeline safety, including how to identify a leak and respond in the event of an emergency	12

After reading this brochure, please scan the QR code with your smart device or visit enbridge.com/surveys to complete an online survey and the chance to win an \$800 grant.



About Enbridge

Awareness today means safer tomorrows

Tomorrow is more than just the energy we transport. It's the energy we put in. It's the time we spend volunteering. It's our commitment to sustainability and the environment. It's the investments we make in our community to ensure the places we live and work are safe and vibrant. It's because we see the potential in people and care about the world around us. Tomorrow is on, and we're committed to making it better.

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.

As an Emergency or Public Official, you need to be aware of the Enbridge pipelines in your area and how to respond safely and effectively to a pipeline emergency. At your request, we can provide additional Enbridge pipeline information including the pipeline's location and size and the contents transported. For additional resources, details on emergency response drills in your area, to talk to an Enbridge representative or to schedule an Enbridge presentation during your next meeting, please call **1-877-640-8665** or email us at cdnpublicawareness@enbridge.com.



Please scan the QR code to learn more about **Tomorrow is on:** Enbridge and the energy transition.

Know what's below



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

Enbridge maintains a Damage Prevention Program in accordance with provincial regulations. The purpose of this program is to prevent damage to our pipeline facilities from excavation activities such as digging, trenching, blasting, boring, tunnelling or backfilling or other activities such as heavy equipment crossing, storage on the right-of-way (ROW), etc. The Damage Prevention Program also monitors the depth of cover over our pipelines and conducts regular patrols of our ROW to monitor for unauthorized activities. To learn more about our Damage Prevention Program, visit enbridge.com/damageprevention.

If you see someone digging or disturbing the soil and there are no flags or marks on the ground, please call Enbridge's 24-hour emergency number. When planning a digging project, one should not rely on word-of-mouth, maps, memory or pipeline markers.

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.

One-Call requirements

1



At least three business days before your project—any time you are disturbing the soil (depending on provincial law)—visit clickbeforeyoudig.com or call your local One-Call centre.

2



When you call or click, you'll be connected to a representative, who will ask you 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



The One-Call centre representative 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.

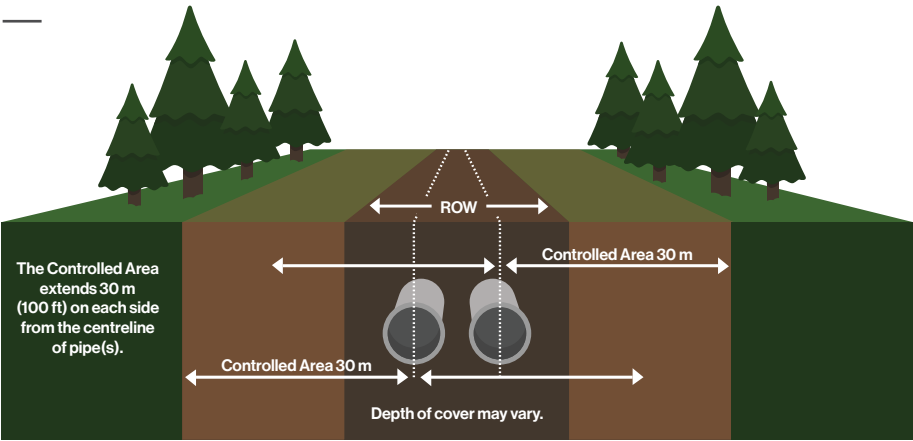
4



Within a few days, professional locators will come to your location and mark underground utility lines—including pipelines (marked with yellow flags or paint)—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. The ROW is not designed to function as a road, as heavy vehicles and equipment can damage the pipelines below.

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

- The pipeline marker displays the operator's name, the contents and an emergency phone number.
- It is prohibited to remove, relocate or damage pipeline markers.
- The ROW must remain clear to allow access for proper inspections, maintenance or in case of an emergency. Encroachments of the ROW such as structures, stockpiles, stored equipment and burn piles must have the company's written consent. Pipelines are patrolled from the air and the ground and obstructions can prevent proper inspections.
- The approximate location of a pipeline may be determined by a pipeline marker. However, markers should not be used to give exact locations and are not an alternative to contacting 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). Within this area, any activities that can or might cause a ground disturbance cannot occur without written consent from Enbridge – or the specified pipeline company – under regulatory requirements.

If written consent for an activity is granted, it is mandatory to then make a locate request in order to confirm and identify the location of the pipeline and any other underground utilities.

Any planned construction activities on, along, under or across the pipeline must also receive approval from Enbridge in addition to a locate request, before going ahead. Written consent from Enbridge is also required for vehicle or mobile equipment crossings within or travelling along 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

If any of your activities will encroach or cross an Enbridge pipeline, ROW, or involve any construction activities within the controlled area, you must contact Enbridge for an assessment and written consent.

Some examples of such activities across, over, on, along or under an Enbridge asset and/or ROW include:

- Construction or installation of a new facility
- Crossing a pipeline while not on an upgraded and travelled portion of an established highway or public road with vehicles or mobile equipment, under certain conditions:
 - the vehicle or equipment is designed to minimize ground pressure (when crossing Enbridge's pipelines this means tracked equipment with less than 6.0psi ground pressure); or
 - a vehicle used for agricultural operation; or
 - an off-highway vehicle as defined in section 117(a)(iii) to (viii) of the Traffic Safety Act; or
 - a commercial vehicle or a private passenger vehicle as defined in the Traffic Safety Act, having a nominal chassis rating of not greater than 2 tonnes
- Subdivision development
- Installation of agricultural drainage tile
- Overhead power lines that cross or parallel the specified area
- Maintenance of existing applicant facilities

All metallic foreign lines need to be assessed for potential impact on our corrosion control.

Enbridge must also be notified of blasting activities within 300 m of an Enbridge pipeline ROW.

In addition to having your proposed activity assessed, we also have construction guidelines for you to follow when working around or near our ROW.

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**

Below are some general guidelines; however, there may be more job-specific construction guidelines that our representative will provide you prior to beginning your work.

- 1** Once written consent is obtained, we require at least three working days' notice prior to the commencement of any work over or near the ROW so we can field-locate our pipelines. Additionally, Enbridge may require a representative on-site before any construction activities occur within the controlled area. Your representative will inform you if this is required. If any work being performed is deemed unsafe, your representative is authorized to stop such activities.
- 2** No building, structure or obstruction is allowed to be erected within the pipeline ROW. If you have questions related to the width of the pipeline ROW, just ask and we'll be happy to share that information with you.
- 3** A company representative must give written approval for heavy/non-exempt equipment to cross pipelines at any location.
- 4** Excavation within the pipeline ROW must be performed in accordance with company-approved procedures.
- 5** In addition to complying with the above requirements, you must follow all federal and/or provincial laws and regulations including applicable One-Call requirements. To learn more, visit **clickbeforeyoudig.com**.

Non-emergency crossings:

If you are planning work on the right-of-way, such as building a fence, deep tilling, digging a ditch, operating equipment or have crossings-related inquiries, please email **crossingscanada@enbridge.com** or call **1-800-668-2951**.

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 an 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.

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.

Please see the chart below for information about crude oil product characteristics.

Additional information on product characteristics can be found at enbridge.com/publicsafetyinfo.

Characteristics of liquid hydrocarbons

Product	Appearance	Odour	Special behaviour	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.
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.

Damage prevention



Our safety measures

Safety is, and always will be, our number one priority. Our team devotes significant time 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 materials and protective coatings

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.

Please scan the QR code to view the AER's "Safe Excavation Near Pipelines" brochure.



Emergency information

Information for 911 dispatchers

In the unlikely event of a pipeline emergency, confirmed or suspected, dispatch local responders and contact the pipeline operator.

Advise the caller TO:



- **Leave the area immediately.** Abandon any equipment or vehicles and move away from the leak, heading upwind if possible. Avoid contact with any escaping liquids or gases.
- **Remain calm.** Emergency response and company personnel have been notified and will be arriving as soon as possible.
- **Evacuate if necessary.** Move to a designated evacuation centre if instructed. If sheltering indoors, close all windows and doors, and turn off ventilation systems (e.g., air conditioning, heating).

Advise the caller TO NOT:



- Drive into the affected area or start their vehicle.
- Light matches or try to extinguish any fire.
- Turn on or off anything that could create a spark such as phones, light switches, keyless entry systems, flashlights, or appliances, until they're in a safe location.
- Attempt to operate any pipeline valves.

Resources

Free training opportunity for emergency responders and 911 dispatchers

Emergency responders and others responsible for public safety in our areas 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.

Field Emergency Response Plans

Our Field Emergency Response Plans are available to emergency response organizations in areas in which we operate. These plans provide information on the ways we'll work with emergency responders during the initial stages of a pipeline incident.

Plans are available online at emergencyresponderinfo.com. If you have any questions, would like to request a map of your area or to provide feedback on our Field 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 please call Enbridge's 24-hour emergency number.



An electronic version of this brochure can be found by scanning this QR code or visiting enbridge.com/brochures.

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.

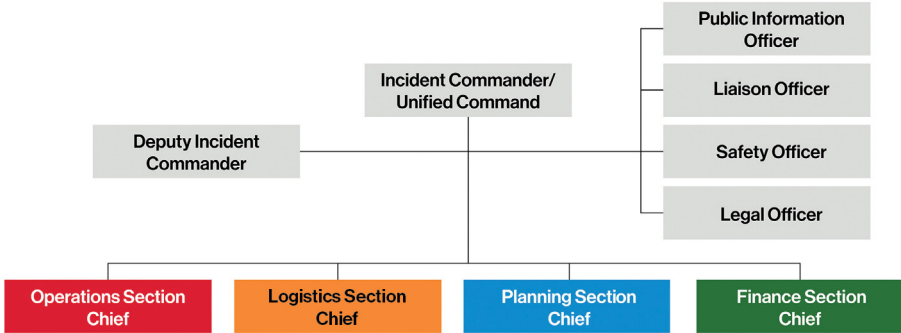
The ICS is a flexible, scalable tool that provides a common framework, uses common terminology and has standardized functional roles.

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 – defines objectives, strategies and resources that contribute to public safety, responder safety and the environment
- Site safety and security
- Communications plans
- Maintaining an exclusion zone
- Traffic 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

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



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



Email:
cdnpublicawareness@enbridge.com



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



Website:
enbridge.com/publicawareness



Facebook:
facebook.com/enbridge

Call or Click Before You Dig

- clickbeforeyoudig.com
- Utility Safety Partners (in Alberta)
1-800-242-3447

Links for more information

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

To view maps of Enbridge pipelines in your area, visit enbridge.com/map.

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
canlii.ca/t/c16m

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 the unlikely event of a pipeline emergency, protecting the public is your top priority – and ours as well. We value your expertise, and we're committed to providing you with the information you need to respond in the unlikely event of an emergency. 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 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
- Discoloured 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, sulphur 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 representatives.

6

Implement your local emergency plan.

In the unlikely event of an emergency



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.